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RNS AND DECORATIVE PLANTS !-(TRADE):-Ferns, in 2 -inch pota, Stove and Greenhouse, 30 beet selling sorta, 128 . 100 ; ditto large, in 485,10 best selling sorts, $6 s$. doz, ; strong seedlings, $6 s, 100,50 s, 1000 ;$ Adiantum cuneatum, in 48's, for cutting, 68 , and 88 . doz. ; ditto, for making large plants quickly, 16 s . and $20 \mathrm{~s}, 100$; Araliss, 10 s . Heliotrope, Fuchsias, Double Petumias, Marguerites, Double Tropieolums, in bloom, in $48^{\prime} \mathrm{s}$, 8 s. doz, ; Ficus, Palms, Dracenas, Orassulas, Hydrangeas, Pelargoniums, 12s. doz. Lists free. Packed free. Cash with order.-J. SMITH, Londed Fern Nurseries, Loughborough Junction, London, S.W.

Petroleum ! Petroleum ! ! Petroleum ! !
BRILLIANTILLLUMINANT. ANDREW POTTER, Melcourne Works, Wolverhampton. Maker to the Queen and Prince of Wales.
©ISHURST COMPOUND, used since 1859 Uor Red Spider, Mildew, Thrips, Greenfly, and othar blight; 2 ounces to the gallon of soft water; 4 to 16 ouncea at from cake, for American blight, and as an emulaion whes paraffin is used. Has outlived many preparations intended to parafin is used. Has outlived many preparations intended to GISHURSTINE keeps Boots dry and soft on Wholesale grom PRICE'S PATENT CANDLE COMPANY (Límited), Iondon.
Q. BEESON'S MANURE.-Composed of Sold in tins, 1s, 2s. 6d, and 5s, 8d, slso in air-tight fowt., 6s. ; 1 cwt , 10e. Full directions for use sent with each tin and bag. 1 cwt. and above sent carriage paid, cash with order. C. BEESON, Bone Mills, St. Neot's, Hunts,
"I have tried this fertiliser on various garden orops, and I am able to say that it ie an excellent Manure for Vegetables, Flowers, Vines, and Fruit Trees.
"A. B. GRIFFITHS, Ph.D., F.R.S.E., Y.O.8."
T. WEEKS \& CO., Hortioultural Builders U. to Her Majesty. H.R.H. the Prince of Wales, H,M. Government, Admizalty Dept.. War Dept., Boyal Hort. Soc., the Duplex Upright Tubular Boilers, King's Road, Chelsen,S. W.

## SALES By AUCTION.

THURSDAY NEXT GREAT SALE OF ORCHIDS.

## A GRAND IMPORTATION OF

CATTLEYA SPECIES,
just Received Direct, in Splendid Order.
Without Reserye.
Including some Fine Masses.
AN IMPORTATION in SPLENDID ORDER From Megsrs. F. SANDER and CO., St. Albans, Comprising-
Lelia autumnalis atro- Aërides odoratum rubens
Cypripedium Rothschildianum
Oncidium pellicanum Leelia Brassavola glauca Dendrobium Dalhousiear Saccolabium ret usum Odontoglossum citrosmum Dendrobium cambridgeanum
Cypripedium bellatulum Cypripedium bellatulum Another
IMPORTATION from Messrs. LEWIS \& CO., ONCIDIUM TIGRINUM

ODONTOGLOSSUM INGLOSSUM HASTATUN,
Established Orchids, chiefly in Flower and Bud from several well-known Collections.

The Second Portion of the Collection of Established ORCHIDS formed by H. B. MILDMAY, Esq., of Shoreham Place, Shoreham, Kent.

MR. J. C. STEVENS will SELL the above by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on T
half-past 12 o'Clock precisely.
On view morning of Sale, and Catalogues had.

## Tuesday, Next.

The COLLECTION of ORCHIDS formed by R. A. Todd, Esq.: of "Honeyden," Foot's Cray, who is relinquishing their cultivation. The Collection is well known for its variety of botanical rarities and other choice kinds, which will be
enumerated in the Catalogue. All the plants are well enumerated in the Catalogue. All the plants are well grown, and present a unique opportunity for and choice varieties seldom met with at Auction Sales. Amongst others, the following may be mentioned :-
Angrecum virens Cypripedium Sch
schil
grande
Lathamianum
Elliottianum
Niobe
caudatum Walligii
Arthurianum
obl Morganiz
Dendrobium nobile Cooksoni Cassiope Griffithianum nobile nobilius Johnsonii
Together with Masdevallias, Pleonies, Dendrobiums, Epidendrums, Zygopatalums, Habenarias, Coelogynes, Brassavolas, VESSRS. PROTHEROE AND MORRIS will

MSELL the above by AUCTION, at their Central Sale Rooms, 87 and 68 , Cheapside, London, NEXT, July 9, at half-past 12 o Clock.

On view morning of Sale, and Catalogues had.

## Friday Next, July 12.

By Order of Messis. F. SANDER \& CO., ST. Albans.
CATTLEYA SALE, WITHOUT RESERVE CATTLEXA MENDELLT.
Now very scaree in its native home. It is well known that plant received is offered.

CATTLEEYA SPBCIES.
A larg-flowered Cattleya, with short, round, Apple-shaped buibs, and thick, board-like leaves. This very distinct-looking and Cattleya Percivaliana. and Cattleya
In large masses. This, the very finest of the type, has not een offared in the Sale Rooms for many years, and Buyers hould not lose this opportunity of securing plants of this, one of the largest flowered and most magnificent of all Cattleyas. PHALANOPSIS VIOLACRA.
Imported plants, in fine condition. The flowers are of large size, rich rosy-purple and yellow, most deliciously scented. ODONTOGLOSSUM GRANDE.
(?) DENDRORIUY CLCECIES from Bhotan.
(?) DESDROBIUM CUCULLATUM GIGANTEUM, but probably new.
The light variety of $C$ RothschidicIANUM
condition. P. BELTAschildianum. Plants in grand LEELA
dendrobium vanda hookeriana gigantea. ESSRS CYPRIPEDIUM PARISHII, \&c.
ESSRS. PROTHEROE AND MORRIS will
sELL the above, on FRIDAY NEXT, July 12, at their
at half-past $120^{\circ} \mathrm{Clock}$ precisely.

Walthamstow, Essex.
as a going concern. Very low reserve.

$\mathrm{M}^{1}$R. JASPER J. KELF will SELL by AUC TION, at the "Tower Hotel" (pposite Hoe Street Station, Walthamstow, on WEDNESDAY, July 10 , at 8 P M.
the FREEHOLD PREMISES known as MARK HOUSE HOAD NURSERIES, together with the brick-built House thereon, seven Greenhouses, Stabling, Sheds, Stock-in-Trade, Utensils, and Goodwill. prominently situated near St. James Street Station. This offers an exieptio
desirous of commencing business.
Detailed particulars of FRANCIS GREENUP, Esq, Solicitor, 44. William Street, Woolwich; and of the Auctioneer Walthamstow, Essex.

## Southend-on-Sea, Essex.

To FLORISTS, NURSERYMEN, MARKET GARDENERS,
To FLORISTS, NURSERYMEN, MARKET GARDENERS,
and OTHERS. ESSRS. TALBOT AND WHITE are Sale Room. Cliff Town Road, Soathend, on SATURDAY, July 20,1895 , commencing at $40^{\circ}$ Clock precisely in the afternoon, the beneficial interest in the LEASE of the old established NURSERY GARDENS, known as the "BEACH NURSERIES," Southchurch Beach (late Reed's), having an area of about 7t Acres of Land, well stocked with choice Fruit Trees in full bearing, and showing well for the present season. The Premises include Two capital Dwelling-house (one of which is let off, and produces $£ 20$ per annum); ;also, a Workman's Cottaxe, at present let at $3 s$ s. per week; extensive Vineries, 136 feet in length, planted with choice Vines, and heated by hot-water pipes; Peach-house, 99 reet by luilding Greenhouses and Forcing-houses, Sheds and Out-buildings and numerous usef. Lease (14 years) direct from the
moderate rental of $£ 50$ per annum.
This attraetive and excellent Nursery Garden has for many years been justly celebrated fcr its choice Grapes and other Fruit, and being within 1 mile of Southend, the demand for it is very great. A considerable business could also be done with Teas and Refreshments.
Printed particulars. with conditions of Sale, can be obtained of A. A. TIMBRELL, Esq., Solicitor, 24, Martin's Lane, Cannon Street, E.C.; of Messrs. TIM BRELL AND WILKIN uctioneers, Auctioneers' Offices, High Street, Southend.

## For Sale by Paliate Theaty.

IHOUSANDS of TEA and OTHER ROSES, in pots. Just coming into bloom.
THOUSANDS of ORNAMENTAL FOLIAGE PLANTS, in great variety.
THOUSANDS of ORCHIDS, in great variety.

## JOHN COWAN \& CO.

Are offering the above for SALE by PRIVATE TREATY, during the next week, at

## SPECIAL PRICES.

INSPECTION is EARNESTLY INVITED.
Descriptive and Priced Catalogues post-free, on application to the Company,
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FOR SALE, South of England, small NURI SERY, in good position, near seaside resort. Rent modeTdte eilington Street, Strand, W.C.
To Market Gardeners, Fruit and Flower Growers,
FLORISTS, \&c.
SUSSEX, Delightful Situation near UCKFIELD
$T$ O BE SOLD, very cheap, with Possession, FRREHOLD RICH MEADOW, \&ce., 14 a cres, with an
extensive range of modern Greenhouses, 73,900 super. feet (of extensive range of modern Greenhouses, 73,900 super. feet (of
which two cover $\frac{1}{3}$ an acre), fitted with 10,000 feet ot Hot-water which two cover $\frac{1}{3}$ an acre), fitted with 10.000 feet ot Hot-water Piping, Boilers, de., sdapted for raising Choice Early Vege-
tables, Elowers, Mushrooms, Salading, on a large scale. The tables, Elowers, Muahreoms, solading, on a large scale. The
Glass erections cost nearly E0,000. Taxes very low. Price, Glaso erections cost nearly 210,000 . Taxes very low. Price,
2.500.-Apuly, by letter, to W. A., 41, Wellington Street, 2.2500.-Apply, by lett
Strand, London, W.C.

To Nurserymen, Florists, Marizet Gardeners, and Others. Large MARKET GARDEN and NURSEEY, with about Four Acres, Greenhouses, Heated, Constant Water Supply, Stabling, Potting-sheds, Offices, \&e., about fourteen miles from Covent Garden,

TO BE LET or SOLD as a going concern, with Pers or tenants. Principals or their solicitors only purchasers or tenants. Principals or their solicitors, only dealt
with. For particulars apply to Messis. DOWSON, AINSLIE
AND MARTINEAU, 28, Bedford Bow. Tondon, W,

## EXHIBITIONS.

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EVENING FÊTE and EXHIBITION of TABLE DECOR TIONS, BOUQUETS, FLOWER PAIM 10 .
Gates open at 8 P.M. to 12. The Bands of the 1st Liff Guards and the Royal Horse Guards, by permission of the commanding officers, will play, and the Gardens be illuminum from 8 to 12
Tickets to be cbtained at the Gardens, and of the prinimal agents, 10 s each; or on the day of the fête 15 s . each.

HEREFORD and WEST OF ENGLAND ROSE TWENTY-NINTH ANNUAL EXHIBITION of ROBRE (Open to the United Kingdom), will be held in the Assembly Rooms, Great Malvern. on THURSDAY, July 11, 1895.
Prize Schedules may be obtained from the Hon. Sec., the Rev. PREBENDARY ASHLEY, Stretton Rectory, Hereford.
NEWCASTLE-ON-TYNE GREAT SUY. MER FLOWER SHOW
Wednesday, Thursday, and Friday, July 24, 25, and 26, $18 \%$
Entries close July 17. For Schedules apply to-
Cross House Chambers.
J. GILLESPIE, Jun,

CALTERHEBBLE and DISTRICT ROS SHOW.-THURSDAY, July 18, 1895. Schedules, \&en
JNO. E. BROOKS, Sec., 4, Savile Park Street, Halifax,
THE TRENTHAM and HANFORD HORTICULTURAL SOCIETY will hold their EIGETH ANNUAL EXHIBITION on July 25.
GROUP OF PLANTS, for effect-1st, 220 , and Silver Cup, alue $£ 10$ 10s. 2 nd, $£ 30$; 3rd, $£ 13$; 4th, £9
48 CUT ROSES-1st and Special, £13 7s, ; 2nd, £5; 3rd, $\mathrm{ES}_{3}$
 Medal; 2nd, £3; 3rd, £2.
( 9 dishes)-1st, £10; 2nd, $\mathbf{L n}_{5}$ 3rd,
4 BUNCGES OF GRAPES-1st, $£ 5$; 2nd, 23 ; 3rd, 22. Schedules on application to Mr. L. T. ALFORD.
Hanford, Stoke-on-Trent.

ABBEY PARK, LEICESTER, The tenth annual Flower show and gala will be held in the above Park on TUESDAY, August 6 next.

To Florists and Landscape Gardeners with Capital. HOR SALE, the 30 years' LEASE, GOODWILL, STOCK, PLANT, and 12 well-built GLASsHOUSES in complete repair, well fitted with Pipes and Boilers throughout-in all about an acre, Constant supprden. water. Prominent position, eight miles from Covent dwallung. house, Potting-sheds, Stabling, \&c. Rent moderate

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To Nurserymen and Florists commencing business.

HAMPTON-ON-THAMES, on The Marlivg Park Eatate, free from London fogs, a deep rich loam, the favourite neighboyrhood for Growers, FRcellent sitas or residences.-For full particulars apply to Mr. FREDK, Ge. $\frac{\text { HUGHES (Surveyor), the Estate Office, Hampton-on-Thame }}{\text { TO BE LET, a NURSERY, FLORIST, and }}$ SEED BUSINESS : 1 acre of Ground, three Houses, and sEED BUSINESS; I acre orket town in South. Stock, Dwelling-house with Shop. Market Street. Strand, W.C.

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A LBION NURSERY.-TO BE LET, at once, nearly half-an-acre, with seven Glass-houses, two 60 feef long, in good repair, heated with hot-water. Moderathatched Southerly aspeet.-Apply to Mr. BATEs, Nursery, Thatched House, Hammerumith, W.
TO BE LET, the old-established NURSERI BUSINESS at Eall Santon, Holmrook, in the county of Cumberland, being carried on for seventy years by the nad J. J. Gaitskell, comprising Dwelling-house, Office, Bard, ing-house, and 12 Acres of Land, partly stocked witia Trees, \&c. Thergreen and Flowering Shrubs, Forest and Fro the Furness The Nurseries are 3 miles from Drigg Station on the Fuired Railway. The Stock can be taken at a Valuation if res, A15 There are also Cottages for workmen on the premises. list Jacob Gaitskell. WM. GATTSKELL, \} Executors.

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FOR SALE, a CHATSWORTH BOILER R. J. WOLTON, Newland Toft Nursery, Holl.

DOUBLE WHITE PRIMULAS. - Strong俍 order. - G. BENNETT, Florist, Hanwell.
SUPERB ORCHIDS, CHEAP.-Thousand P.MCARTHUR, TheLondon Nursery, 4, Maida Vale, London, W.

$0^{1}$RCHID PEAT ; Best Quality; BROWS DODENDRON DODENDRON and AZALEA PEAT. Samples and
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Lovdon County Councll THE LONDON COUNTY COUNCIL is Brepared to receive TENDERS for the SUPPLY of to submit tenders may obtain a copy of the specification, form of tender, and other particulars, at the Parks and Open
Spaces Sub-Department. County Hall, Spring Gardens. S. W. Spaces Sub-Department. Counti,y Hall, spring Gardens,
Tenders must be upon the official forms, and the printed intenctions conta'ned therein must be strictly complied with. structers are to be delivered at the County Hall, in a sealed cover, addressed to the Clerk of the London County Council, after 10 o'Clock A.M. on Friday, July 19, 1895. Any tender which does not comply with the printed instructions may be rejected. The Council does not bind itself to accept the lowest DE LA HOOKE, Clerk of the Council. Council Hall, Epring Gardens, S.W., July 4, 1895.
TENDERS are invited for the ERECTION and HEATING of a CONSERVATORY to be erected in ance with plans and specifications which may be obtained from
THOMAS H. MAWSON, Park and Garden Architect, Windermere, on a deposit of $10 \varepsilon . \in d$., which will be returned on
receipt of $b o n a$. fde Tender. receipt of bona.fide Tender.
Town Hall, for receipt on July 16 .
N.B.-The Conservatory is to be erected on the puttyless glazing system
TDINBURGH SCHOOL
BOARD OF MANAGEMENT appointed by Court, the Highland and Agricultural Sociaty, the Town Court, the Highland and Agricultural Society, the Town
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Tastimonial from Chas. Patrici, Esq., Cloughfold, Varnish for upwards of twenty years, and find noue to equal it in economy and quality.
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Sample Half Gallon Tin, post-free for stampe, 2, 64,
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| $\mathbf{s .}$ | $d_{0}$ |  |  |
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THE

## Gardeners' Ollronide.

SATURDAY, JULY 6, 1895,

## PETER COLLINSON.

$I^{\top}$T may be fairly questioned whether the annals of horticulture contain a more anomalous an individuality than that of Peter Collinson, who did more to escourage the cultivation of exotic plants during the earlier balf of the last century than any other man, and who never wrote a book! It is more than passing strange that this restless and enthusiastic cultivator should have fallen into the great obsourity which surrounds his name and his work; for even the memoir of him in the Dintionary of National Biography, by the late Robert Hant, F.H.S. (vol. xi., pp. 382-3), is from natisfactory, one or two of the most important sources of information concerning him being entirely overlooked. Posthumous fame is more of ten than not the only species of gratitude vouchsafed to men who have done muoh on behalf of their country; but if the post-mortem eulogies of Peter Collinson have been few, faint, and far between, he enjoyed the mach more substantial and satisfying adrantages of an exseedingly wide repute and appreciation daring half a century of his long and busy life.

Peter Collinson was born at the paternal estate of Hugall Hall, or Height of Hagal, near Widdermere Lake, in the parish of Staveley, about ten miles from Kendal, Westmoreland, on January 14, 1693. 4. His parents were members of the Society of Friends, and were engaged in business as mercers. At a very early age Peter developed a passion for natural history, and when quite a young man had secured the friendship of the leading naturalists of the day-Doctors Derham, Woodward, Dale, Lloyd, and Sir Hans Sloane. The Earl of Bute was another distinguished naturalist who encouraged Collinson; and it was at the suggestion of the latter that Admiral Sir Charles Wager systematised his search for illustrativeexamples of natural products during his voyages - considerable portion of the colleotions thus formed passed into the possession of Sir Hans Sloane, now an integral part of the British Museum. Collinson natarally experienced no difficulty in becoming a Fellow of the Royal Society-in his time, as present, the most exolasive of the learned bodies in this country-and was eleoted December 12, 1728, at the unusually early age of thirty-four years. He was an exceedingly diligent and asefal member, not only in supplying the Society with "carious observations" and materials for disoussion, but in premoting and preserving a most extensire correspondence with learned me: in various parts of the world. His diligence and economy of time are desoribed as such that, " though he never appeared to be in a harry, he maintained an extensive correrpondence with great punotuality; acquainting the learned and ingenious in different parts of the glabe with the discoveries and improvement in natural
history in this country, receiving the like information from the most eminent persons in almost every other."

The most noteworthy of Collinson's correspondents were Cadwallader Colden, of New York, and Benjamin Franklin, of Philadelphia. The latter commanioated his first essays on electricity to Collinson, in a series of letters, which were afterwards published,* and whioh will be found in the collected editions of Franklin's works. In 1730 a subsoription library was set on foot at Philadelphia, and Collinson not only encouraged the movement by making several very valuable presents to it, and by proouring others from his friends, but he voluntarily undertook the commission to purohase a quantity of books-a task which he performed to great satisfaction for over thirty years. At the same time he transmitted to the directors or committee of the library, accounts of every new European improvement in agriculture and the arts, and every philosophical discovery, among which, in 1745, he sent over an account of the new German experiments in electricity, together with a glass tabe, and some directions for using it.

A few months ago a very important series of long and interesting letters from Colden to Collinson, and a few from Franklin also, oame into the market at Sotheby's, and realised very high prices. A few extraots from these letters will be valuable for future reference, although botanical matters formed but one of the many subjects dealt with in these epistles.

Writing to Peter Collinson from New Haven, in Connectiont, on June 26, 1753, Benjamin Franklin, inter alia, condoles with the former "on the death of good Mrs. Collinson." "I do not," he says, "offer to comfort you by arguments drawn from philosophy or religion, sach will readily occur to a person of your understanding and piety. Natural affections must have their course. The best remedy of grief is time." A contemporary has noted on the flyleaf of this letter the following somewhat onpleasantly candid opinion:-"There was no occasion of any philosophy on this ever-to-belamented ocoasion. P. C. had few feelings but for himself, the same principle that led him to deprive his son of his birthright, when that son lay in the agonies of death, and knew not what he put his hand to, supported P. C. in the loss of the best woman in a manner that did no honour to his feelings, his gratitude, or his humanity." How far the charge made in the anonymous annotation to this letter is true, it is now impossible to say; but unsupported evidence of this kind is not of serions value.
From 1749 to 1757 Peter Collinmon aent to and received a large number of exceedingly interesting letters from Cadwallader Colden, Lieatenant Governor of New York, anthor of $A$ History of the Five Indian Nations. In the earliest of these, dated from New York, July 18, 1749, Collinaon was anked to view "a chamber fire-engine, with long leather pipes, anch an I am told are likewise uned to water gardens, and cont about $£ 5$, if from experience they are found to answer the end for which they are desigaed;" and also 200 lb . weight of red Clover weed." A letter dated agsin from New York, March 17, 1758, Colden refers at length to botanical matters, one of the sentencer being:-"I rent by laet packet to Dr. Fothergill a description of a new genus, with a drewing of the plant by her [bis daughter Jnany], which we have called Filmaurea." In another letter, dated Auguat 11. 1764, contains the following intereating paragraph:-"In nome of

- These letters ware published in three parts, under the titio of Eperimants end Obserractions in Electricity, in Loudon, in 1751. 1753. 1754, Collinson undoabtedly acting as editor of the pamphlet.
your former you informed that you had the true Scammony from Alyayo growing in your garden. I am confident it will agree well with this climate. I should be glad of some of the seed to be sent so as to now it next apring, and some of the aeed of the true Hellebore. Dr. Whytte in his latt letter informs me that the Colchicum antumasle, or Meadow Saffron, is found to be an extraordinary Dacrelia, and effectual in Dropries. I wish to have it, an I think it is not a native of this country."

Only two letters appear to bave been preserved out of the many which must have passed between Peter Collinaon and Richard Richardson, the equally enthusiastic naturalist; the have been priated by Dawson Turner in his Extracts from the Litenary and Scientific Correspondence of Richard Richardson, 1835. Neither appears to be in Collinson's handwriting, and were probably dictated by him to a aecretary. The earlier of these is dated Aagust 12, 1742, and deals chiefly with the death of Lord Petre, but it contain everal horticaltaral items, which will be


Fig. 1.-PETER collingon.
(From Nichols Literary Aneedotes.)
read now with intereat. For example, he anys, "the Laurus indica, Aldini, is nowhere to be nold; the seed of it were cent to Mr. Brewer, fresh, but they have not come up." And again, "Mr. Gordon has also had flower Obeliscotheca (Rudbeckia hirta, L. ) with a red flower; he ia the only gardener now left that has a good atove; but now Lord Petre is gone, I am afraid all utove plants will go down.

I tell you of a curionity that I saw at Captain Goffre, an Eaat India director, the true Tea-tree in great health. It was brought two or three yearl ago, a present, from China, to his wife. It is an evergreen, and is housed with the Orangetrees, for it grows on the more northerly parts of China and Japan, about the latitude of forty degrees north." According to Miller, the Tea-tree was not imported into England bofore 1768, which is, therefore an error.

Four yearu later, April 4, 1746, Collinaon again favoured Richardoon with another of thowe long and gosiping letters which are now euch valuable contributions to the hiwory of gardening. His fears aboat the decline in atove plant caltare, consequent on the death of Lord Petre, proved unfounded, for Lady

Petre appeare to have thoroughly entered into the apirit of their calture. He deacriben the great tom house of Lord Petre an "the most extraordiany sight in the world." All the plants, he goes on th say, "are of such magnitude ; and the novelty of the appearance atrike every one with pleasare. The trellices all round are covered with all species of Passion flowers, which run up near 30 feet high: the creeping, great flowering Cereas blow annally with such quantitie of Hower that urprises every one with their bearty, and athe ame time perfumeth house with their scent." He does not tell us of the size of the great stove, bat the lener one measumd 60 feet long and 20 wide, and "is full of a vast varisty of all species of tender exotics."W. Roberts.
(T) be continued.)

## PARASITES.

At a meaonable time towards the end of lant yeur (Gardeners' Chronicle, December, 1894, pp. 745.6),1 contributed a fow notes to this journal on the biological peculiarities of certain species of Viccas and Loranthas, baving, at a previous meeting of the Linnean Society, exbibited namber of apecimens of various plants parasitical on the ateme and branches of other woods plants, in illuatration of thew peculiarities. A prominent feature in that exhibition, though one merelyalluded to in the article cited abore, consiated of apecimens of Anstralian Lorantha and some of the plants on which they prey, oxhibited to demonetrate the otriking resemblance in the foliago of the parasite and that of the hont. In aome instancus the resemblances are eo close that a superficial oxamination is insufficient to detect the presence of the paraxite when not in flower. The biological aignificance of this phenomenon has been interpreted in the sense of advantage to the parasite, though apparently without any very good reason, for they are in need of no special protection to enure their existence and reprodaction. Indeed, as I have already pointed out, several of those opecies parasitic on plante having similar foliage, grow equally as well on plante having totally dissimilar foliage. Bearing on this sabject, Mr. F. Tarner, F.L.S. Botaniet to the Department of Agricalture, Sydnet, has a very interestiag article in the Proceedings of the Linncen Society of New South Wales (vol. ix., pp. 557 to 560), on exotic trees and shruba affected by Australian Loranthe and Viscums, He gives a list of twenty- weven foreign trees and shrabs that have become hoats for native parasites; yet only a small number of the latter have been observed to attach themeslves to introdaced plants-only three in fact, out of about twenty-five of the Loranthacea. They are, Loranthus celastroides, L. pendalas, ad Viscum articulatum. The last is a lestleas Misloto with broad, flattened, jointed branches, and one of the coont widely disperned species, ccearring almonk throughout Iadis and Malaya, and extending to China, Japan, and Polynesia, growing on a great variety of plants; yet Mr. Turner atates that ho never sam it growing on any native Auctralian trot except Doryphora Saseafras (Moaimiaces). Ife had also seen it growing on cultivated Peach trees, bat on no other exotic. In the Kaw Herbariam, however, there are Australian pecimen recorded as paraaitic on Pilocarpus (Rataces), Ezocarpus (Santalacex), and Baloghia (Euphorbiacex). In the Sandwich Islande it it common on Acscia Koa; in Japan and China, on Earys and Camellia; and in India and Malaya, on a variety of trees and shrubs belonging to various other natural ordern.
Curiously enough, the Loranthu that most clonelg, mimice or resembles, if the reader would rather, the native host plants, is the one that mont commonly preys upon exotic plant belonging to a variety of natural orders. This is L. pendalus, which ir common on some pecies of Eacalyptus, Santalum, Acacia, \&cc. It, and L. celastroides, between thens, have been obverved growing on twenty-vix ezotic treesend ehrubs belonging to thirteen natural ordeth Among the trees and ulrabs on which they prey I majy name the Talip; Orange, Apple, Pear, Locut, Plam, Whitethorn, Olive, Eim, Plene, Alder, Wil. nat, Oak, and Willow-a afficiently diverse variety.

In connection with the existence of parasiten paranitic on other parasites, I mentioned in my article referred to above that there was an authenticated record in Bentham's Handbook of the British Flora of Viscam album growing on Loranthas earopæus, for which I could find no other anthority. I have aince found a more definite record of the fact in Pollini's Flora Veronensis (iiii, p. 176), where the anthor, after enumerating a number of trees on which Viscum album grow, continues:-"Atque etiam alius speciei parasiticæ, scilices Loranthi eпropæi; nпnquam vero anper Qercaum apecies." W. Botting Hemsley.

## USE AND ABUSE OF POTASH IN FRUIT GROWING.

Attention has been called by Prof. W. E. Britton in the American Agriculturist to the use of the fertiliser potauh in orchards. The author says, an excess of nitrogen naually tends toward wood production and an increased growth, at the expense of the crop of frait. Potash and phosphoric acid, on the other hand, are the elements apecially suited to promote the general vigoar of the tree, and increase the quantity and improve the quality of the fruit.
The experience of many large fruit growers favours the use of potash in manuring orchards. It is most commonly applied in the form of mariate of potash, from 200 to 300 lb . per acre being considered an economical dreaning, if the orchard receives an application each year. Kainit may be used instead of muriate of potash, bat double the quantity must be employed, as this alt containa a mach smaller percentage of aoluble potash, and it is only about one-third of the price to parchase.
Professor Britton is inclined to think that the practice of applying potash or phosphoric acid exclasively is sometimes carried a little too far, and thinke that if a complete fertiliser were used, it would in many casen give better reaulta.
The reault of experimenta on the fertilining of Peach orchards at the New Jersey station shows the greatent yield of fruit per acre where mariate of potash and nitrate of aoda combined were applied; but potash gave much better reaults than either nitrate of soda or phosphoric acid alune. Potash eeemed to promote a certain vigour and thrift which were lacking in trees deprived of them.
A later report from the ame atation confirms this experience, and eryy, "potash has proved the mont valuable of the single elements, the net gain being greater than where farmyard manure was ueed." The largest net gain, however, came from uaing a complete fertiliser.
Mr. S. D. Willard, a well-known weatern New York horticulturist, ways:-"In order to have good hard wood, healthy leaves, and well-developed buds, we mast rely upon potash and phosphoric acid."
Potash was once thought to be a remedy and preventive of Peach-yellows, but experiments show this to be without foundation. In a recent balletin from the Cornell Station, Profeasor Bailey asa: "I believe that the keynote to the proper fertilising of Peach orchards is potash and phosphoric acid, and not nitrogen; wood-ashes, muriate of potash, bone fertilisers-these are some of the money-makers for Peach trees. Potash is generally the most important element to be applied directly to orchards, particularly after the trees have reached bearing age."
One of the best sources of potash for orchards is wood-ashes, but this material is so often in America weakened by leaching that it cannot be confidently recommended when in that condition. Forty to fifty bashels to the acre is a good drensing if the aahem have been kept dry. Muriate of potash is perhaps the best and most reliable form in which to necure potarh at the present time. Commercial amples generally contain from eighty to eighty-five per cent. of mariate of potash, or about 50 per cent. of actual aoluble potanh. An Apple orchard in full bearing and upon loone soil may recsive at high $2 e .1,000 \mathrm{lb}$. of potash per acre, but a normal and economical application is from 500 to 700 lb .

Thus it is seen that in a majority of cases an application of potash benefitu an orchard in bearing condition. This fact points towards one of two suppositions, (1) that the soil is generally deficient in potash; or (2) that potash is beneficial when present in excess of the requirement of the crop. At first thought, a deficiency of potash in the soil seem improbable, when chemical analysis showa that the total contents of the first 8 inches of a fertile soil gives nearly $20,000 \mathrm{lb}$. of potsah per acre, $3,521 \mathrm{lb}$. of nitrogen, and $4,400 \mathrm{lb}$. of phonphoric acid. The soil then contains over four and a half times as much potash as it does of phosphoric acid, and more than five and a half times as much potash as it does of nitrogen.
Mach of the potash present in the soil becomen available to plants ao slowly, that it has to be assisted in rendering it more soluble by some other agent, or by an application of ready-formed potash.
The ashes of fruit trees contain a large percentage of potash, and it is also present in considerable quantities in the frait. It may be mentioned that some prominent fruit-growers fail to note any benefit derived from potash alone when applied as a fertiliser to orchards, and nome claim an injary from its effecte. This fact mapports the first supposition referred to above, bat is fatal to the second.
Soils differ, and it is likely that we shall find potash very beneficial on mome soils-perhaps, on most soils, while aseless on others; before applying large dones we should ane it in a mall way and note its effect. It in aleo thought that potash applied as a fertiliser improven the quality and flavour of the fruit; it certainly tends to mataration and to the production of sugar. J. J. Willis, Barpenden.
The Rosary.

## ROSA WILLIAM ALLAN RICHARDSUN.

I read somewhere within the last few days a savere condemnation of this Rose, stating that it was so fagacious as not to be worth growing. Sarely the writer could have never aeen this charming Rose in free bush form, or climbing up into a tree, ascending a charch-tower, or clothing a housegable in a half-wild and free atate. The exquisite form and great variety of colour in the bads and expanded flowerm, the beanty of the leaven, and the prodigality of the bloom, aurely atone for it lack of aubatance and of staying power. With the exception of L'Idéal, we have nothing in the aame atyle among our Roses [Jaune Desprez. Ed.] And William Allan Richardson seems to me worthy to rank with Gloire de Dijon and Homere for the production of triking and telling effect around the house or in the landscape. No Rose can produce similar colours or anch fresh and faecinating resulte at William Allan Richardson.

The Extreme Hardinkss of Rosa rugosa and its Varieties.
Susuex seems to have been highly favoured in the matter of the safety of it Roses this year. From all I have seen and heard of the two countier, Suffolk hae been hit much harder by the frosts of February than Sussex. The county has doubtless a warmer climate to start with, and has more and greater undalationg of sarface than Suffolk, and few things are more potential in affording changes and ameliorations of climate than are hills and valleys. Rosarians, in localities less favoured by nature, rejoice with "A. P." and others who havo written in hopefal terma of the Rose harvest already begun in Sumex. And we can all find one pleasure in common, and that is the extreme beauty and perfect hardiness of Rosa rugosa in all its varieties. The only change that I have noted in thil atriking Rose this year is in the colour of the foliage. I have noticed this change before, but not to the wame extent. In mome cases, almont entire plante have become almost golden. The change of colour in the leaves has not affected the bloom, which is plentiful as ueual. Rosa.

## A PARK FOR DROITWICH.

Droixwict, though situsted in an agricultural district, find its chief mupport in the manafacture of salt. Bat this trade is becoming precarious in some reapecta, becasae the making of alt in the town is not $s 0$ great as it once was. Many of the houses appear to be losing their aupport also, and are leaning in every direction. The churche are like the houses, mostly out of the perpendicular, and the High Street has lost grade.
The town is becoming better known on account of the brine bathe that were provided by Mr. John Corbett, of Impney, who bailt ap a gigantic alt industry in the town and at Stoke Prior, four milen nearer Bromegrove. Theae bathe are rightly becoming famous for their carative and alleviative propertien in rheumatirm, ciatica, gout, and kindred complaints. Numerous visitor realise the value and importance of a prolonged course of baths, and take up their residence for weekz and monthe, according to the necessity of their case. The town, though mall (about 4000 inhabitants) is well provided with hotels and boarding-houses.

To meet the requirements of visitors, Mr. Corbett has provided a beautiful park in a central position, and within a short distance of the hotels. The site, covering nearly 12 acres, was formerly an orchard, the froits being chiefly Applep, Peara, and Medlars. Many of the trees are 100 to 150 years old, and of immente size. The ground is slightly undulating, and has a slope to the west, north, and east. Mr. Davien, the head gardener at Impney, han availed himself of the natural advantages offered by the lay of the land, and has produced, after his own plann, a park which is at once beantiful, interesting, and unique.

A few of the fruit treen have been removed for artistic reasons, but mot of them are retained, Rones, Wistarian, Clematis, Bramblew, Honeynucklen, Virginian Creepera being planted near them, so an to grow up into the crown, where they will in course of time form picture of floral loveliness. Then imagine the glory of the Apple blonnom, of the ripening golden fruit in antumn, and the feat of Rones in summer. A wide carriage-way encircles the park, and in one part is carried in a atraight line through what is an avenue of Apple treen. Wide footpath intermect, without marring the appearance of the central area, and skirt the boundary. In anitable positions are a large flower-garden planted with the unual kinds of bedding plants, a Roae garden, and an American garden with manses of Ghent Azalear, Andromedas, Khododendrons, Ericas, and other plants. Conifers and other evergreens are planted in masees about the award, and are used for masking undesirable objects and the internecting point of walka and roade. Seats and summer-housen are plentiful. J. Udabe.

## FLorist8' Flowers.

## RANUNCULUS ASIATICUS VARIETIES.

Thodar the Panty, Tulip, Auricula, \&c., are now the subjects of reviving interent, Ranunculases, the favourite flowerk of my boyhood'a daym, neem to be more and more neglected. Yet no flower is more beautifal or perfect in form, they excel most other flower in the symmetry of their shape, their brilliancy, and variety of colour; so that a bed of fine Ranunculus is a most attractive object. I have no doubt there are still some amateare to be found who cultivate Rananculuse from whom a choice collection could be obtained. The once famous collections of the Rev.- Tyso, Messrs. Lightbody and Watervon, are, I preanme, now defanct. It is not a difficalt flower to cultivate, although all kinds of ail and situations are not equally adapted to the requirements, and it has numerou insect enemies.

I do not now propose to go fully into it cultivation, but to eay a few words on soils and the raising of seedlings. In selecting a situation for a bod choose a moint tolerably rich aoil, not too fully exposed to the ann. Prepare the ground by deep
treaching, and add to the garden woil a portion of manare from an old Cacumber-frame, with one-foarth loam-mix these well together, and prepare the bed some length of time before planting, in order that it may settle firmily ; plant the roots in the end of February in rows sbout 9 inche spart, and from 3 to 4 inches in the row. Use a anerked dibber, wo that the rootu may be all planted at one aniform depth, and cover the roots from 1 to 1 linches deep. Shoald the weather prove very wet or frovty before the planta come up, protect the bed with atraw, mata, or nome anitable material. When the plants comenence to ahow bloom, give plenty of water between the rowi, but never water over the plants, which is one cause of failure; when in flower protect them with an awning from an and wet, and when the folinge is nearly withered about ix weeks after fowering, welect a fine day and take the roots up. Place thom in a room where there is plenty of air to dry gradaally. After they are once dry they mast be kept so, so the least damp would mould them. The best time for sowing the need is the middle of October or early in Jannary, in boxes or pans, covering the seed very lightly. They should be kept in a cool frame during fronty weather, and at all timen should have constant expoeare to the light. In May, plunge the bozes or pans up to the rim in the open groand, where they have only the morning sun; water them almost daily until the grave withers, then let the boxes become quite dry. About the middle of July take them ap, gradually dry them, and keep them in a box of dry and. In Febraary they should be planted and treated in the same way as the old roots. Edvoard Bownett, Iyne, Chertsey

## Teie Carmation and Picoter.

I fear the time hae come when I must be claned with the old florista; and yet daring all the yeare it has been my pleseare to caltivate the Carnation, I never knew a wason anything like the present. It has been mout trying to the show varieties of Carnations and Picotees. The scarlet and crimmon bizarres have saffered most, next the flakes, and then the choice floriata' type of Picotees. The yellowground Picotese have also felt the effects of the wet, cold autamn, and of the eevere froute in Jauuary and Febraary. All the self Carnations are doing well, and will flower very atrongly.
In the first place the layers did not form roote well, and many of them did not produce soy at all; thin necessitated late planting out or potting up, and almost before the plante became eatablished aevere frouta set in, and the roota were thoroughly frozen, thous in 60 -vized pots in frames were at hard as iron, and slthough the plante were not killed outright they were very badly crippled. Indeed, plante ware sent to me se late as May in a dying state, the cause of which I had every reason to believe wat owing to the effecte of frost apon them in Febrasy. One good effect of the frowt is the deatruction of the weakly growing varieties; it was cortainly a teating time, plant which paseed well through a winter like the latt may be regarded as nigorour enough for anything. Nothing in Carnation culture ie more remarisable than the different degrees of vigour and hardinese of varieties. Many persons have an idea that the selfe are hardy. free-growing varietien, and that the fllkew, bizarres, \&c.s, are delicate things, only fit for greenhouns cultare. There is no doubt that planta of the scarlet bizarre section are more slender in growth than the others ; bet it doee not follow that they are lew hardy in conatitation, or that they will sot atand the frowt so well in winter. Indeed, the bizarrea and fiakee do much better in the county of Darham ont-of-doors than they do in Eaver; vefficient proof that if is not altogether either front or wet that ipjare them. The degres of vigour in a Carnation is to a certain extent determined by the colour of the flowers, as may be ween by the greater vigour of certaia oporte from the bizarres. The maroon colour in scarlet bizarres, or the purple in crimsons, giving the crongest growth; and yet in sulf the whits-fiowered Carnations art as rigorous, and somatimes, ladeed,
they have greater vigour than the acarlet or erimaoncoloured varieties.
Plante of differing degrees of vigour require a different treatment. Ono semen the young gardener who had charge of my plante, gave the entire collec. tion a good dresaing with a rich compost in Msy. This answored admirably for all the rarieties that mado ahort stumpy growths, causing them to grow mach longer. Those of very vigoreus conatitation. and which prodaced long-jointed laywrs, apindled ap for bloom to an alarming extent, caasing convidorable loss. In a dry mason, sucb at this, a rica anface-dressing is a great aid to the plante. Watering hat been much needed everywhere in the south; bat watering in of little use aslese the planta can have mulching of decayed manure, and if a thorough sonking in given once in a week, that will be mach better than giving a amall quantity daily, but never safficiont to well satarate the ground. Anyone can obsarve the effect of watering on hard, thoroughly dried groand, by examining it after the water has been spplied for a few hours; it will be quite dry sbout 2 lachee below


the surface, unlew the surface has been loowened. The treatment of pot-planta requires much thought on the part of the gardener, at aome varioties make quite three simes at many roots as others, and it is afe to suy that planta require three times at mach wator, and if the cultivator is not caraful to water each, with dae regard to ita requirementa, the reatite cannot be altogather satinfactory. The time for layeriag in now at hand, and the soll ought to be prepared for it. This may coneist of equal portione of loam, leaf-moold, and sand. A little of the sarface-toll ought to be removed, and this propared meterial pat in its place, carefally trimoniag and catting the layers with a lay*riog-lnife. Any blooms that have a tendency to burat will be greatly helped by the calyx being supported with an indiarabber ring. The thrip have been troublewome this year, but there is no better way to deal with them than by patting the plata in a greenhouse and famisatiog them. It is astonishing bow mach mischief this liftle insect cas do to the flowers, it quite epoils them if left andiatarbed. Green-fy, which doen as mach harm to the layert as thripe do to the fowers, may be killed aloo by frmigating. The plants in ove gardan I viaited thim year had boen attacked by a bluck sphis, and, naoberved, it had aprand cosaider-
ably over the plasta, atlacking the bloom it po ference to the layers, this wis also destroyd by fromigatigg; it thee pecte appear before it it timo it romove the pladte iato the Caraktion-boese, the bett way to koep stem down to by ayrsainge and alo deatiog with Lobaccio-powder J. Ih whilas.

## Trees and 8hrubs,

## HEDYBARIM MILTTJICGUCM.

We are inoobed to MP. Lynct, of the Cazbridge Botazic Gandoa, for the opportavity of Areriog th ateractive handy abrab. It la a ative of Soethen Mongolia, end wes described by the lameat Maximowica. Oap lllatrasions (Gg. 2. 3) thow a leaf ad a portion of the faborvensee of the semint she, cogether with ac octlive ebowing the rpamal character or babis of sbe plack. The berbeceoce portions are covered wich a chia covering of appreend to hairs. The boikhe is 2 20 5 fool ; the bravebe are anconding, alender, rigid. angelar, etriate; the pincata leaves are somewhas distank, (w) to 30 mill long. the pione are alcornat or opposile. sixten to eighteen in namber, ovate-cate, apiculate. 106015 mill. Jong. Scipales delsold, caminale. Flowert ano merose, is erect racemes. with very abort pedicale. Calye oblique, subular, alit on the epper aide, liab nearly eacire. Sisedard violes, with yellow blockm on the middle of the janar aerfoce. a ceac. long. Wing obliguely oblong. with a long clow; keel d two oblizes helberd-ebared ecalted petale. Scamons curved, aine sed one. Rips fruis sot seen.
The plant above deweribed is bandsome hardy ahrob, which lues, wo balieve, been diutribated from the Cambridge Botanic Gardea. We bave dof conpered Mr. Lyneti's plant wish wathentic opecimensis the herbarium, bat we may point ont thas oar preeont plant doee pot ontifely corroepond with Hegel's figure in the Gertonfore, \& 1122, wherein the tomert are dewcribed and 8 gured as row-coloured.

## Colonial notes.

## A TOWN GARDFN IN NEW ZRALAND.

A prect of groosd in the contro of town, although a small obe, in act a very encouragiag place to operste on borticaltarally, bat a mixed collection all doing well may intarest onme of your reeders is other parta of the wopld. Is one corner is a bash of Aloysia citriodora from Chill, and demmed at anociate for oven $Q_{\text {iees of Spais. Is ancther }}$ corsar is a deed Willow, ap which are racing is friendly rivalry a Clomutie, a Devomiensis Row, and the white 8wat Pes Mrs. Sankey, all of Raropeal origin. Alogaid s funce aro the followiag Tou Roves, aleo from Europe: - Marie lian Hoate, Madaze Lambard, Madaen do Watheville. TMe Bride, and close by, the Rev. T. C. Cole. Not far from thees is anatus dependens, another Sonth Austican abject, sad if there it one plast mont than another is thi vegutable kingom wich deserves sdmirstion, it is this. On the ocber wide feace are Camellime from Chins, which do better planted outaide in tho shade is these regions. an indication that they are uetiven of a cemperate clime, and flourith an andergrowth is woods. Here aloo are Japanees Chrysunthewams, inclading Reolle de Lyon: bulbe from the Cape of Good Hope and other coantries above the equator, an Fresiae, Iniat, Ranuncall, Belliax, Antholyses, all Schizotylis, and the Trumpet Lily. Auother plant which Istites apon boing meen is the Coral tree (Erythrim Crista-gelli), from the cooler parts of B-azil. That grand ormamental Grase R1ymo condenestus frow Britiah Colmabia is hore, bot raquices more roote then I have for it; $n$ is Pranas ilicifolin from Callfornis. Both these wert apnt me by Dr, Franceschi, and Lavatera savargwatifolia. Abott the middle of thie plot of groand is a peodent Willow

[^1]with a rastic seat underneath inviting your leinare. Not far from this Willow is a miniatare rockwork, smooth stones being ansuitable, as they attract and retain the sun's heat-raya to a deatructive degree, in the centre of which is an Ethionema grandiflorum from Aoia Minor or the Levant, and neatling anderneath this is the modent Campanala fragilis, and a native Adiantum, which, trae to itself, refueed to grow in pota; and also the Iryleaved Cyclamen, an autumnal-flowering variety; and that indiapenable plant to all rockwork, Cerastiam tomentosam, is amongst them, bat the parity of its flowers attracts the sails. The climbing Gourd of Central America in very ornamental, but requires abundance of water. With the exception of a fow minor sabjects, all have been noted that are in this enclosure. . . . Oar own native flora hava decided objection to being removed from itm natural aanociations, as if afraid of contamination with the outside world, particularly that part above the equatorno inducements can reconcile them to any new conditions of life; ten timen out of twelve they positively pine away and die. The prevailing colour is white, as in Clematis indivisa, Convolvalus sepium, Ranunculue Lyalli,Oarisia macrophylla, the Monntain Primpose, after the way of Japonica, but with whorls of pare white flower: ; Plagianthue Lyalli, one of the dwarf ribbon-trees, with clasters of lovely white flowers npringing from the sides of its brancher, which at first sight reaemble a Tydea. Then there are many apecien of Veronica, Olearia, Pittosporum, Cordyline australis, the latter a common feature everywhere, all with white flowery, and many othern, discovered within the last twenty jeare, many genera of plants hitherto unknown, owing to the difficulty of getting into their native wild. For the information of those of your readers who are unable to underatand what being loat in a forest meana, let them for a moment imagine themaelves in an immense area of densely-wooded country, consisting of evergreen treea, shrube and Ferna of all sizen and agen, many square miles in extent, and far away from any human habitation, the proatrate trunks of trees in all directions rotted with age, the atems and branches of climbing plants impeding progress at every ntep, Mosses and Lichens hanging 2 or 3 feet long in their nilvery gurb, fitfully lightivg up the gloom. Add to this the oppressive, dank atmophere. You shout (or cooey) for help, but the sound seems mockingly reeechoed by the native birds; in attempting to extricato yourself you are found taking a circuitons roate; it is then you feel what the word " impenetrable" and "deupair "really mean, and what it is to be lost in a buah or foreat. Yet there is an inexplicable fascination in the perilons ponition.

## THE ARTICHOKE.

Thas plant is of Greek origin, and the ancient Greeks engaged in ite culcivation; atill more so the Romana. The Greeky called the Artichoke Cynara, 30 did also the Romana. Pliny, combiniog it with the Apallean word sclarea (Cardoon) called it asealia, otherwise Carduus, and the Italians of the middle ages Articocce, from which our modern term Carcinofe is derived, which pointe to the similarity exiating between the furm of the cones of Pinas pinea and the closed flower-head which afford no wellflavoured and wholewome a food. Bat as all the parts of the Artichoke are pleasant eating-rootu, leaf-talke, stems, and flower-hesds, to the Neapolitan of to-day calls it atill Cardoni, and the head especially Carcinoffe. The true Artichoke is without doubt not Italian, but of Greek and oriental origin; yet we find the later Greeks praining the Artichoker of Sicily for their apecial good quality, and this is true of them at the present time. That the bee-attracting, gigantic, handecme flowere which apring from the delicious bud attracted also the ancients, whone only trouble was the numerous prickles, which are nought for in vain in the beat varieties of to-day.
There were in ancient times many different forms; an 1 , at has been mid, the Sicilian varieties were

 CAMBRIDAE: BOTAMIC GIRDEX.
celebrated. The Spanish Artichoken are dark parple-almost black; and the further north it in grown, in rainy, foggy climaten, the violet colour disappears, and is replaced with green or greygreen. The Spanish Artichoken are, like the Cardoons, upright and tall, the bude hidden from view, and the ribs of the leaves of fleethy connistency, as in the Cardoon. Pliny extolled the Carthaginian Artichoken for their great size, snd thone of Mauritania for their excellent flavour.
In the present age, the Artichokes of Naplen and the Campania, in aize, tenderness, good flavour and fruitfulness, excel all others, even thowe of other parts of Italy, and it is believed that thene fine forms of the plant originated in northern Africa. The sncients gave mach attention to the cultivation of the plant, and we are told that large quantitien of manare and diligent atirring of the oil were required to render the bade tender-eating, and increaze the fruitfulnens of the plants as well. It is a maritime plant, and loves proximity to the ocean; it should, therefore be chielly grown on the coatt; and with the ready means of transit found in most European countries, there would be no difficulty in sending the produce inland. The ancienta increased the plant by means of the side-shoota or arckers, which the root freely prodaces.
In the spring, the sarface of the Campanis, covered by enormous Artichoke field, astonithen the traveller, who sees it for the first time with the abuadarce and bearty of the planta. No other vegetable can compete with it in productiveness and value, rivalling Asparagus in flavour and wholesomeness, and in the simplicity of the methode of cultivation. The profits of the Artichoke-grower are enormous, exceeding anything obtnined in France or Germany for vegetables, even auch a good paying crop as Asparagua.
In Italy the plant resta daring July and Augurt, allowing the land to be inter-cropped with nome quick-growing plant. When the heat of the aummer is past, and the antumn rains begin to fall, the plant commences to grow anew; this is the best time to remove the side-nhoota (auckers), and traniplant them. These shoots soon poin roots into the soil, and to grow faat, and may be depended upon to prodace heade the coming jear. In November, the plant being in full growtb, is well dressed with manure. To do this, the leaves are bundled up together, and trenches are made at the side of the plant, and pig-dung-water is poured into them; over this is placed half-rotten stable-dung, and the earth is returned over all in the form of a ridge. In about foar weeks another application of liquid mannre is made, and it does no harm if this be followed by another in January. Tbere are varieties in Italy which produce beads at Christmatide, and some that grow the whole year; but the usual harvest period is from the end of February to the middle and end of Joly; in Sicily earlier, and in northern Italy later. The beade are cut with a atalk and a neighbouring leaf before the parple flowers expand, and tied in bundles for the marlet. Some special varieties are of the aize of a child's head, and some have a epiny calyx, these being the bent flavoured. The plant is of ase to man and animaly from the root apwards, and the dried stem: are oned for fael. Extract from Wiener Illustrirte Garten-Zeitung.

## VEgetables.

pea cannell's english wonder.
Those who have not ae yet grown this Pea should do so. As a d warf-growing Pea it is one of the beat in commerce, and in gardens of limited area, and where stakes are not obtaiabble, as is often the case with amateare in town dietricts, a Pea like this is a boon. In height it is about 1 foot, and requires bat 15 inches apace from row to row. The quantity of pode produced is simply attounding. The advantage of this variety over American Wonder is the excellent way the pode fill. I have before me two pode, a fair anmple of many; one measures barely 24 iaches long without the atalk, and contains seven extra largo Peat. The second pod is jast $2 \frac{1}{2}$ inches long, and has eight Peas closely packed inside. If this Pea contained all these pointe of advantage, and wss of iodifferent fiavoar, I thould not appreciate it even then, regarding, as I do, glayour as being of the firt order. Cannell's Eaglish Wonder has no fault as regard flavour, and it is an acquisition in every respect. Sown on February ${ }^{28}$, it wat ready for uee Jane 7. $L_{C}^{\prime} \boldsymbol{M}$.

## A LIST OF HYBRID CATTLEYAS.

THE following list has been compiled by Mr. Chapman, gardener to R. I. Measures, Esq., in the same manner as was followed in the list of hybrid Cypripediums previously published. Of this latter list, copies can be had on applioation to the Editor, it being understood that the proceeds are given to the two Gardening Charities. This list of hybrid Cattleyas is made up to May 1, 1895.


A LIST OF HYBRID CATTLEYAS-(Continued).


Nursery Notes.
SWISS NURSERY, FARNEAM, SURREY.
Nor in the ordinary acceptation of the term is this a nursery, because it neem to be more generally utilised for the production of seed crops, and in this direction very likely it present some features of intereat that ordinary nurterie lack. The place is nituate on a somewhat barren-looking heath, about $2 \frac{1}{2}$ miles from the famous Hop-town of Farnham. If a matter for congratulation to the local renidente that Mr. S. Mortimer has pitched his tent there, it is all the same a matter of some difficulty to thoas at a distance who find Rose Lodge is not a convenient place to reacb. The site seemed, at the outwet, to have been on thia barren atarved-looking heath, about aupromiaing an one as conld be for a nurwery, but no one can tell the full capacitien of ground until it is fully teated. Now, after a few yeart of deep working and good cultivation, it in found poseible to grow first-class show Dablise in quantity, yet arrounding heath-land looks an if it would be dearly purchaved at 20 s, per acre. Amongat other accompliahments, Mr. Mortimer is a capital Dahlia florist, and he has put out this year of "shows," fancier, pompons, Cactus, seedling", \&c., about 1000 plante. These are in everg case about 4 feet apart each way, are all neatlv ataked, and well mulched with long manure. Tinis latter usefal
article, by the way, hat to be brought about 6 milen, from Alderahot, at a cont of 10 e, per cartload. Even on this apparently dry elevated apot Violas do well, a long row of old plante of the pretty Conntens of Kintore presentiog a charming sight. Still, the soil is far more retentive of moisture than in the long drought could well have been expected. Water is almays found at 6 feet from the nurface, whilst half a mile away a depth of 180 feet has to be dug ere water is found.

The wonderfally pretty Nemenia atrumona Suttoni is found here in great quantity, and blooming freely. The plants were raised under glant, then planted out in various blocks of colour, and these are found to come pretty true. Some of these hue are rich a'most beyond dencription. Within the houses a very fine lot of seedling Coleuse may be seen, atrong plants, in 6 -inch pots, of varying heights. Size of leafage and coloration all are beantifal, some saperlatively so. Who would take the trouble to grow these plants from cattinge and winter them, when from a packet of seed they can obtain wach a wealth of beanty and of variety? These are grown expresoly to produce seed; very tiny in the seed, and the greateat care and patience is needed to collect it. Celosia pyramidalis again forms a very beatifal feature; the plante range from 16 to 24 inches in height, are of perfect form, have many singularly rich colours, and are indeed charmingly effective for ordinary decoration. All the beat worte of Fuchaisa
are grown, bat only as old pot-plante, dwarf bushes, jast to furnish cuttinge, we these, when rooted, are sold in great quantities. They root in shallow boxen, filled with the arface-and from the heath, with remarkable ease.
The chief aubjects of the housen, however, are Tomatos, Melons, and Cacumber ; of these latter, hage crop of seed-fruite have already been taken off from January plantinge, and other plante heve taken their places, to give a second crop. Thene are chiefly grown in wooden trough about 20 inches wide, having open or trellis bottoms, and atand over the hot-water pipes. No plants could do better than thene, none could be healthier. The houves are low spane, and being well down in the ground, alway have a moist atmosphere. Cacumber Marvel, shown recently at the Drill Hall twice, is represented here by younger planta now in full fruit. The sample hanging remarkably handsome, mooth, even, and green in colour, with scarcely any heel, and about 16 inchea long, is as, perfect a variety an can be denired, and is a heavy cropper. Of other varieties grown, Sutton' Prize-winner, Improved Telegrapb, Al, and Rochford's Market, are now in growth or cropping. Success, Lockie's Perfection, and other varieties are aloo grown as needed. The jear's produce of fraits is indeed heary, and the seed crop a great one.

Melons are grown for seed and for trials, Thene are chiefly put up in Orange-bozes filled with soll
the plants being about 2 feet apart; they are, as are the Cacumbers, trained up beneath the roof on wires. Melons and Cucumbers sometime are grown in the same house, getting almont identical treatment. There are juat now, perhaps, thirty or more varieties of Melons being grown. All have good, even-aized, hand momely-netted fruite; none are big, or ungainly, or mall. Every one is prenentable, and they harg thickly. The largeat crop of any one variety is Eclipue, a grean-flesh, of great beauty and of high glavour.

Tomatos of all the best vorta are grown, both as arect or upright plants, and trained to wire under the glass. A fine new 100 -feet house, having plants put out in rown of four on each side, and 3 feet apart, aesma to preaent as admirable a atructure for the purpone as can well be conceived. The sorts are Conqueror, very early ; Perfection, Mitchell's Hybrid, A 1, Ham Green Favourite, Beat of All, Abundance, Frogmore Selected, \&c. There are no unduly large fruits. A good amooth, medium-aized ample, firm, and richly coloured, in mont enteemed. Thin house is very light, has ample ventilation, and the plants are in perfect heath. About 12 cwt . have already been taken from it, and fully 8 cwt . more fruits are maturing now. Tomatos are grown for market, and so far the return for good samples seem to have been most satiafactory. Mr. Mortimer' exhibits at the Drill Hall and elsewhere fully whow that he ia a first-clase cultivetor. A. D.

## Cultural Memoranda.

## PROPAGATION OF RESTIO SUBVERTICILLATUS.

Tex propagation of thin rare Cape plant, I believe, has hitherto been effected by the divieion of the roots and rhizome, and by this method the triala have often been attended by failure. Lately, roota ware noticed about the noden of the stem, apparently apriaging from the base of the young growthe, but only apon stems of not leas than two or three year old. Several stem were taken off and cat ap, learing about a coaple of incher of old stem with the node in the centre; these were put into thumb pote and placed in a handlight where they were shaded from the an in an intermediate temperature. Hers in about a month's time tio plants in some casea begen to root, and when root action is once set up the growth in vigorous. As the plant in a small state would be useful as a decorative plant on account of ith long feathery plame-like ntems, it should soon become more generally known in our gardena. Grown in a cool greenhouse, it soon forms a very large plant if encouraged, and for planting in large structure is always pretty and attractive. R. L. Harrow.

## The Wzek's Work.

## TEE KITCEEN GARDEM.

By Jomor LavsirbT. Gardener. Powis Cante, Webhpool.
HINTS ON WORK IN GENERAL -Owing to the drought, gardeners in most parts of the country will be beavily handicapped in this department, and in some dietricta crop will have been lett uathinged in the hops of rain coming so as to render the work possible. Where rain has fallen and the land is moistened, the thinning should be forthwith completed. Other crops, nuch.as Salafy, Scorzonera, Tarnipm Beetroat, late Onionm, and Canlifowern, wili need heavy application of water at the root and byringings of the foliage. Go over the plantation of Cauliftower at whort intervals of timo. protecting the head by breaking down a leaf or two over them. For how Caulitower I would not recommend thil al general practice, and certainly not in the case of Aatamn Giant, the heads of which rariety are a long time in coming 20 perfection, and breaking down the leavea sometimes lete in the light at the aidea. It is a better method to gather up the leaves near the tops, and tie them loowly together, not eruuhing them. This allowa of on expmination of the head by removing the tie.

Another, but more costly way, is to use two thicknesses of calico which fit close, keep out damp, and the heads readily develop underneath them, and keep perfectly white. Safficient care is, I think, not taken by some cultivators, or we should not see so many badly-coloured Caulifowers in August on exhibition tables. The best way to keep fullgrown heads is to stand them in an erect position in a cool, rather dark ahed or cellar, with the roota in damp noil. Ds not crowd them together. If the roots are plunged in water, as is sometimes advised, the card soon opent. Do not be over-desirous of size in Cauliflowera, but cut or lift them when the curd is firm and white.

BROCCOLI.-Carefully prick out the bent plants from the seed-beds when large enoagh to handle, the plants being more easily looked after in these scasll beds until wo get rain than when planted in the quarters. I do not advise early planting, or on soil that is loone or very rich. It may not be amiss to describe my method of procedura with Broccoli in 10945 , as it was generally a disastrons year for them. Oar hardent frost wan $35^{\circ}$, or $3^{\circ}$ below waro. The seed was sown on May 24 and June 13. The majority of the plants put out were of the June aowing. These plants were planted direct from the need-beds.


CELERY.-The main crop of Celery should now be planted, affording the plants one good watering to settle the moil. Damp them overhead after hot days.

THE SOWING OF BEED8 OF COLEWORT8.-A sowing may now be made of Colewort and earlyhearting Cabbagen for autumn use, making other sowinge of the ame in the course of a fortnight.

HERB8.-The cutting of herbe for drying shoald take place at soon an any kind show flower, if later than this the leaves drop. Parsley should be gathered in quantity for drying whenever it is plentiful. When dried and bottled there is a great saving of green Parsley for flavoaring purposes effected.

## PLANTE UNDAR GLABS.

## By W. H. Sxate, Gardener, West Dean Park, Chichester.

PLANTS IN FRAMES, -By this time of the year Freeria bulbs should be thoroughly ripened, and maj be shaken out of the soil, the large-floweriag ones being put on one side for potting. The smaller bulbi, so as to economise pace, may, when the suitable time for starting them arriven, ba planted in boxes. The Bride (Gladiolus Colvillei) and other varietien of Gladiolus cultivated in pots should be placed in the open air as soon as the Howara have faded or are removed. Afford weak manure-water occasionally to them till the growth begins to die down, when clear water only may be afforded, and then very aparingly.

NERINES should be oxamined, removing decayed leaves, sud cleaning the plants generally. Thone which are showing for flower should be separated from the rest, and the anil afforded a thorough watering. The tock of Nerines should be examined every few day, for no sooner in a flower-spike viaible than the plant needs water at the root.

SALVIAS may be removed from the frames and potted on in their flowering pots. Guod loam and leaf-soil with plenty of well-decayed manure will auit them. After re-potting, place them out-ofdoors on a coal-ash floor, syringing the foliage daily, and affording planty of water at the roots when the pota are permeated with the roots. Lat the plants be provided with neat stakes before they become tall, or damage by wind or heary rain may occur.

MIGNONETTE. - If large pots of Mignonette are required in the early winter months, seed hould now be sown, three or four eed baing placed in a many 60 -potn as may be considered suffizient for the densud. These should be filled with loam, leafsoil, and finely-broken old mortar. Make the eoil - Dery firm before sowing, and cover the seeds to the depth of a quarter of an inch, and place the pots out-of-doors on the north side of a wall, Mignonette
ancceeds if kept partially haded daring the nammer, and the soil never allowed to become dry. A few of the best varieties for winter are golden Qieen, M lles' Hybrid Spiral, Parson's White, Garraway's White, and Matchet, the latter being sown a little later and kept in maller pots; the habit of the plant is very dwarf and bushy.
herbaceous calceolarias.-Sow the seed in hallow pans filled with ifted loam and leaf-noil, previously moistened thoroughly, cattering it thinly on the sarface. Do not cover the seeds at all, but after pressing them into the moil place a bit of glass over the pans, and keep shaded till the seedlings appear, when more light and air should be gradually afforded.
vallota purpurea.-This plant, as soon as the flower-apikes puah up, requires abandance of water at the roots, and a slight top-dressing of Clay's or some other fertiliser. Sickly plants should be shaken out of the soil, the bulbs wahed in water, and repotted in turfy loam, leaf-soil, and wood-ashen or charcoal in the proportion of one hovelfal to one bushel of ail. Rymove the flower-spikes from all weakly bulbs. The plant should be lightly shaded till they are firmly established.

## THE HARDY FRUIT GARDEIT.

By W.Pope, Gxrdmer, Highelere Castle, Newoury.
FURNIBHING BLANK SPACES ON TRAINED TREE8. - It sometimes happens that unaightly blank occur on Peach and other trained treen, owing to bad attacks 0 : blister or mome othar cause. The efmmetry of the tree may be reatored and fresh main brancher secured if deaired by inarching, and the operation should be performed now or daring the next two months, when the young shoots attain the requisite length and firmness. Saitable growing shoots hould be inarched on to the bare portions of the older branches. The method of operation is much the ame as in ordinary budding, but in addition a tranaverse cut has to be made at each end of the longitadinal slit in the bark, which should be on a clean healthy branch; and about $1 \frac{1}{2}$ iach in length. Raise the bark carefully with the handle of a budding-knife, then take a thin alice of bark and wood from the young shoot on the ide to be joined to the atock, and place the growth thas prepared under the bark, alterwarde binding it closely, yet not too tightly, with aft matting, or budding cotton. When the anion is effected, which, under favoarable conditions, will be in the course of a month or two, the young branch should be half cat through below the juaction, and after a further interval of a few weeks, it may be severed entirely.

REMOVING GNAGB FROM PEACH-TREES.-Look over and remove anags of dead wood from Peach Nectarine, and Apricot trees, paring auch off closely and neatly with a sharp knife.so that the wonad will heal over before winter. Young, newly-planted, and other trees that may have been cut back require special attention at this meason in this matter, such snage, in addition to being unsightly, form harbonra for insects later on, and are otherwise injarion.

RABPBERRIES are generally looking well this season, and there is every prospect of a good crop. See that all fraiting canee are properly secured to wires or other supports, and protect from birds by fixing nets well above the planti. which is batt done by erecting a light framework of wood anfficiently high to allow room to walk ander, then stretching net over all. If surface suckers have been removed, and only anficient for next year's requirements have been reserved, this will admit more light and air to the crop of frait now maturing, and it will utrengthen the growth of thome reserved for fature fruiting. If it be desired to form new bod from sarplas suckerm, thene may be atopped at a fort in height, no as not to interfere with permanent canes.
protecting red ano white currantbLose no time ia protecting Red and White Carrants by netting if birds are troublesome. First make are that all are free from caterpillars or aphis. If caterpillars are present, the bent remedy is handpickiag; whilstaphis may be destroyed to a grest extent by first taking off and destroying all infested tops, afterwards thoroughly washing the trees with clean, soft-wster, applied with force from the garden-engiae.

THE FLOWER GARDEN
By Bailez Whids. Gardener, Birdsall Gardens, York.
raising roses from seed. - The cronsfertilisation of Roses is not much understood or practised in this conntry by amatears ; it is, however, a most interesting occupation. In our uncertain climate, the plante operated apon should either be grown ander glass or in a sheltered part. The flowers selected as seed-bearers would require to have the stamens removed with a pair of finelypointed sciasora before the pollen han become matare. General Jacqueminot is a variety which should be
fertilised, or the pollen ased to fertilise otheri, in fertilised, or the pollen used to fertilise others, in
about four hours after expanding; and in determining the time, a good deal of attention in required, for if the pitilis are not nearly matured, they will not be in a condition to be fertilised. The petals are then gently palled off, the stamen cut away, and the pollen applied to the atigma of the seed-bearing flowers by the aid of a camel'shair pencil, or by gently rabbing them with the bloom of the fertilining sort. Very doable flowers do not make auch good seedbearers as the less doable ones, and they posseas less pollen. Atter the operation the fertilised flowers should be enclosed in fine netting to ward off flies, \&c. The ripe seed-podm or hips when gathered should be baried in damp and until the beginning of the year, and then sown in pota or boxes placed in gentle heat. The seedlings appear in a few weeka, and will require carefally potting and planting out when all danger of froti is over.
pleasure arounds - Gras lawns that have become browned by the recent dry weather thould not be mown very clonsly. Raise the knives in the machine well ap, and remove the graas-box, $s 0$ that the cut grans may remain as it is scattered about by the machine; it will then assint in keeping the lawn green. If the lawn has not been mown for some time owing to the drought, it will be well to mow it lightly over with a sharp scy the before the lawnmower is used on it again. Grast-edgings should be kept tidy by clipping with the edging-shearm, and narrow verges of grass in dry situations require to be well watered daring dry weather.

8HRUBBERY BORDERS AND BEDS should be frequently hoed and raked, to give them a tidy appearance. Gravel walk and drives which are made with materials that become very loose during dry weather should be watered and rolled. Keep them clean from weeds by hand-weeding, or by applications of a weed-killer, which is a mach cheaper process in the end than using hoe and rake to them, especially where large gravel is used. The watering of trees and shrubs that were planted late in the season should be continued during dry weather.
rosemary (rosmarinus officinalis).-Seedling plants of this useful sweet-scented undershrub that were raised in the apring thould be planted out into sheltered situations against walls or other places where they are likely to stand well through the winter. They are unable to stand the winter in the north in exposed places, or on cold, wet soil. They may be propagated by cuttinge atruck in gentle heat, or by layering. The present time is a good one to make layers from the old plants into a light, ricb, well-drained soil. There is a great demand in most gardens for this very valuable plant.

LAVENDER (LAVANDULA 8PICA).-This popalar sweet-scented plant requires a warm, light, loamy soil ; it is easily increased by seeds sown in gentle heat in the apricg, or by layers of it pas down now, and planted out in Augunt or September, when it has become well rooted. It should then be planted in rows about 3 feet apart, or it may be planted in shrubbery borders in place where it can get the full saulight, It require well-drained soil, and in northern districts shelter from north and east winds also. The flower-spikes should be cut when the bottom part of the apike begine to tarn brown. If they are long enough, they shaculd be tied tightly just below the flowert, then tarn up the stalks, and tie the ends to form a protection for the flowers, which will last much longer if tied in this way.

PRUITS UNDHR GLABS.
Bu Riciard Pabrer, Gardener, Goodwood. Chichester.
PINES.-As the fraits are cat from the plants, the old foliage may be shortened back to allow the mickers to develop as much as ponsible. Keep the roots in a moint condition, and byringe overhead and
between the pots during bright weather, allowing a little manure-water to collect at the base of each sucker to encourage new roots. Only aufficient shading ahould be afforded to prevent the young foliage being damaged, plenty of light and a fair amount of ventilation being necesary to promote aturdy growth. In the meantime clean some 6 inch pote, and prepare a good heap of compont, ready for potting up the auckera as soon as these are large enough. The compost will be all the better if prepared some Tarn it over well severs times, so that the whole be thoroughly mixed, and let it consist of good tarfy loam, apent Mashroom dung, crushed charcoal, and sharp and, with a alight dasting of soot. Keep the soil covered with mate to prevent it becomiag diry. The poteshould heve one large crock at the bottom, and a few finer one placed over; or what is better, a aprinkling of broken oyater ahells. The house or pit in which the young stock of plant is to be wintered hould be thorougbly cleanned, and the planging material renewed to enare a steady bottom heat of about $85^{\circ}$. Smooth Cayennen ahould be induced to throw ap of few trait in auccestion from now onwards, so as to keep up a regalar sapply during the autumn and winter months. Commence to feed the plants an moon as there is the appearance of frait, and encourage growth by giving plenty of heat and moisture. Frait in different pleace of held stages should be kept in an upright position, as the the crown to grow on one aide.

MELON8.-The hot weather has caused these to turn in quickly; and where naccessional crops are not following clonely, shading ahould be efforded to those changing colour, to retard them as much as ponaible, and as the flavour of the fruit improvea by being allowed to become thoroughly ripened on the plant, it is better to shade the roof-glase than to cat the frait before it ir ripe and atore away in a cool place. Later crops in different atages of growth should be frequently dressed with frenh loam, and well sapplied with moistare at the roots, and the foliage kept regularly as ringed in hot weather. Seed may still be sown to raise plants to supply frait during September and October, but the houses in which these are to be planted must be thoroughly cleanaed and fresh soil afforded, or it is likely they will prove a failure from the attack of red-mpider, and the poorness of the noil that has produced a previous crop.

WINTER TOMATO8.-These were recently potted into mall 60 's and placed on ashes in a cold pit. To ensure plenty of fruit during the winter, the plants must be grown well daring the nummer month. As soon as ready, these plante will be put into $6 \cdot$ inch pota, and again placed in the cold pit, until eatablished, when they will be atood on ashes in a annny position. By the end of the presert month they will be ready for the fruiting-pota, which will be 10 -inch ones. In the final potting a space of several inches should be allowed, so that the plants may receive several top-dressings as the fruit plants may receive severat The plant bould be staked and placed in a sheltered place, but one open to the aun. All side-shoots mast be kept piached, and each plant grown on the cordon as tem. By the end of September the plants will be from 4 to 6 feet higb, wit I clusters of fruit in different atages of growth, the whole length of the tem. Avoid too rich a $\begin{gathered}\text { nil } \\ \text { when potting, as it is }\end{gathered}$ beat to feed the plant alter the fruit is set. Keep the roots well supplied with moistare, but should period of wet weather set in, see that the drainage ifree, and the poss ahould be stood on a couple of bricks.

CUCUMBERs.-A few plants may be raised now to supply fruit during autumn and early winter, and chus asve to a great extent those plants intended to yield fruit from Docember onwarde.

## TER ORCHID EOUSES

By W. H. WHITR, Orchid Grower, Bwrford, Dorking.
CATABETUMB, MORMODES, AND CYCNOCHEB. -Thene singular and interesting Orchids now growing rapidly, enjoy strong heat and a clear light whilat growing ; and a capital place for them in in the East Indian-house, where they may be suspended from the roof with their foliage about an inch or two from the glany. The flowern appear an the bulb get matured, and until the growth is fully madn up mastared, and until the growth is fully man up abandant watering is required by the plants. After
flowering is pat, the plante should be expored to
full annhine, and be plentifully applied with water at the root till the new paeado-balbs are sipe and the leaves fallen. Cyrtopodiam Anderwonii and C. punctatum will require imilar treatment, bat theee flower daring the apring monthe, the apilew appear ing in conjanction with the young break.
brouahtonia, banguinea, etc.-A very atriking Orchid now in bloom is this speciet, which is worth adding to any collection. The colour of ite flowers is deep red, and these last for a long time in good condition. It nucceed when fastened on to in wooden rattor block, with a little sphagnum-mons about it, and suspended from the roof of the Mexicanhouse. The ame kind of treatment as that afforded to the other inmates will suit ite requiremente. Another beautiful pecies which anually doen well in the Mexican-hnuse is (Idnntoglossum citromam. Its flowering season is now over, and the young growthe are on the move. Any plant that require fresh material or more space should be at once attended to. Backeta are preferable to potm for this plant, as when auspended the racemes of blonsom are seen to better advantage. They ahoald have a light position, and water carefully afforded till the new growth have made some progress or decay may realt if the roots are not in full sc tivity. When established, abundance of moistare il necesary, the plants being placed in nearly full and shine, and a good overhead syringing administered at closing-time every day. If the plante mant be grown in the shade, lens water at the root will be required, and syringing may be dispersed with Barkerias require exactly the same kind of treat ment, and now that these plants are in fall growth the young shoote should be frequantly examined for mealy-bug, which if not kept in check will disfgare them.

EPIDENDRUM RADICAN8, which has been in flower for several months, hould have the flower-miket removed, the plants having started into growth. I: is a plant of a scandent habit, and the ahoots should be tied around a few neat stakes, keeping the young growth well up toward the light. I hroughout the growing season, it should be kept moist at the ront, so frequently syringed overhead. E. radican may be easily propagated by taking the offehoot which appear on the old growth and flower-atems, and inserting them thickly around the edge of a flowerpot, in well-drained aphagnum-mont.

EPIDENDRUM BTAMFORDIANUM is DOW starting new growth from the base of the current jear's spikes. It is a species that has baffod numerous cultivatore, and from the information which I have received from Mr. C. Payne, who for a long time succesfully cultivated the aplendid mpecimen exhibited at the recent Temple nhow (see Gardeners' Chronicle, p. 687. with fig.), the principal cause of failure appears to have been through affording it tco much heat and moistare. The plant, when it came ander Mr. Payne's care about a dozen years ago, wa a very little piece, with only a few pseado-bulbe, and he put it into a small uballow pan, affording it plenty of drainage, elevating the plant well above the rim, and using as compost two part of rough fibry peat to one of phagnam-mnes. It was placed in a light moint corner of an intermediate-house, where, with carefal attention as to watering, \&c., the plant soon began to grow luxariantly, and it has continned to grow and bloom well up to the present time. Daring growth, and until the flower-apikes became well adranced, abundance of water was alway afforded, but as the flowers commenced to open lese water wai afforded, and at no period wat the plant allowed to become quite dry. The proper time to re-pot E. Stamfordianam in about the time that growth recommences. I may mention, that according to Mr. Payne's recommendation, I have placed several small plante which for yeara pat bave been gradually deteriorating, in auch a position as above indicated, and they already appear to appreciase the change.

Roses.-365゙6 Rone bloom were ntaged, an wh learn from the ecretary, in competition at the National Rose Society's Southern Show. Tae total sbove given does not inclade the Rover extibited in the section for garden Rowes, and in the decorative clases. With the exception of those at Birmingham in 1890, and Chester in 1892, this wes the largent provincial exhibition that has yet been held by the Society.

## EDITORIAL NOTICES.

## Advertisoments should be sent to the PUBLISERE.

Newspapera,-Correspondenta sending nowspapers should be careful to mark the paragraphs they wish the Editor to see.
Inustrations, -The Editor will thankfully recive and select photographs or drawings, suitable for reproduction in these pages, of gardens, or of remarkable plants, Nowers, trees, ca.; but he camnot be responsible for loss or injury.

## APPOINTMENTS FOR THE ENSUING WEEK

## MEETINGS.

tUEsDAY, JULr $9\left\{\begin{array}{l}\text { Royal Horticultural Society's Com- } \\ \text { maitteees at the Drill Hall, James }\end{array}\right.$ 8treet, Westminator.

SHOWS.
saturday, July of $\left\{\begin{array}{l}\text { National Role Society, at the } \\ \text { Crystal Palace. } \\ \text { London Pansy and Viols gociety }\end{array}\right.$ Condon Pansy and Viola gociety. the Crystal Palace.
tUESDAY, JuLy $9\left\{\begin{array}{l}\text { Wolverhampron Floral Fate (th } \\ \text { daye). } \\ \text { Ipswich Horticultural and Rose. }\end{array}\right.$
(Rose Shows at Chelmaford, Farn-
 Royal Hotanic Society, Evening
Fate.
THUBSDAY, JULY $11\left\{\begin{array}{c}\text { Bath Boge and Begonia, Worksop } \\ \text { Rose, Woodbridge Rose, Helens- }\end{array}\right.$ Rose, Woodbridge Rose, Heleng-
buigh Rose, Great Malvern (Hereford Rose).
SALES.
TUESDAY, JULT $9\left\{\begin{array}{l}\text { Established Orchids at Protheroe \& } \\ \text { Morris' Rooms. }\end{array}\right.$
FRIDAX,
JULY $18\left\{\begin{array}{c}\text { Imported Orchids at Protheroe \& } \\ \text { Morris }\end{array}\right.$

CORRECTED AVERAGE TEMPRRATURE FOR THE ENSUTNG WEEK, DEDUCED FBOM THE OBSERVATIONS OR FOBTY-THRER YRARS, AT OHISWIOK.-63'.3.

Messbs. R. Wallace \& Co., of
Calochortus.
Colchester, send us a box of out flowers of some of their varieties of this lovely genus. Their markings are so delioate and so intricate, their shades of oolour so nively graduated, that a verbal description is more than ever inadequate to conver an idea of their beauty and variety. There are still many who care little for the signifioanoe of all this variety and beauty; to them the flowers are beautiful, and that is enough. But the real plant-lover finds in them an added interest, and is able, in some degree, to invest the material with the spiritual. Taking the flowers before us, it is obvious that all this variety of oolour and spotting is conneoted with the fertilisstion of the flowers by inseots, and we do not doubt but that adaptation to parpose direotly or indireotly governs the whole arrangement. It is curious also to observe how the same end is aooomplished by various means. Thus, in most of the flowers before us there are "eye-spots," and fringes of coloured hairs to attraot and entangle the inseot guent, perchance to bar the passage to undeairable visitors. In all such flowers, so far as we have seen, the stamens and the ovary are pale-coloured and relatively inconspionous, but in one labelled C splendens stroviolacens, the flower is self-coloured, pale lavender, thinly besprinkled with whitish hairs, with no eye-spots or blotohes, and no fringe or pad of densely-oompacted hairs, such as are met with in the other forms. On the other hand, the atamens and the ovary are of a rich purple coloar!

What the insects are which visit thene flowers in their Californian homes, and what precise variations occar in the mechanism of fertilisation, we do not know ; growers might, with advantage, record what take place here, and who are the visitants. This matter is not merely one for the
physiologist or botanist, it is of direot praotical importance also. A curious illustration of this fact is given us by Messrs. Wallace, who find that one particular form, C. venustus var. oitrina is injured by a leaf-outter bee. The insect destroys nearly all the flowers of this variety, and, to a less extent, those of the similarlycoloured C. lateas. Why the insect should thas manifest a preference for yellow, and take no heed of flowers of other coloar, is a mystery to be solved. Messrs. Wallack ask for a remedy, but short of oovering the flowers with a net, which would be very objectionable, we do not see how the enemy is to be oircumvented.

Calochortus differs from Tulips or Lilies, though allied to both. On handling the bulbs for the first time, one marvels most of all at the prodigality of blossoms that keep following each other in rapid sucoession from the tiny bulbs or root-stook. By growing a fair oolleotion of these plants in early, mid-season, and late varieties, these bulbs may be had in succession from April 1 to the ond of July. These bulbs are quite hardy under proper caltural conditions. Planted in oold, wet, or crowded herbaceous borders, where the straggle for life and growth is incessant, and the survival of the strongest only the bitter end of so many brilliant hopes, the Caloohortus might not oome to much. The best plaoe for them is a thoroughly drained, dry border, faoing and also sloping south, and raised 1 foot or so above the surrounding surface. The soil should be compounded of sea-sand, leafmould, and road-grit in about equal proportions. Sandy loam might compensate for the absence of sea-ssand and road-grit, where neither is easily available; but the former is the compost for Calochortus at Colchester.

It is good practioe to take up the bulbs in the month of August, and replant again towards the end of Ootober or the beginning of November. The plants make little foliage, and produoe almost a forest of flowers. They are greatly helped through the blooming season, and espe cially through suoh droughts an we have had this season, by good thorough waterings every alternate day. Many ohoice colleotions of these showy bulbs were exhibited at the Colchester Rose show, containing some of the choicest varieties.

Though most of the earliest had faded at the time of our visit on July 2, the following were among the best in the different sections. Earliest: C. albus, C. amoenus, C. pulohellus. The mid-season bloomers: C. Benthami, C. corruleas elegans, C. lilaoinus, C. Tolmei.

The latest ceotion are the tallest and the most show, the flower-stems rising to a height of 2 feet in some of the varieties, one floweratem showing a dozen or more blooms, some, suoh as one of the largest venustas oculatus being 4 inches across the cup. The following, among others, were beautifully in bloom in Messrs. Wallack's nursery on Jaly 2:-C. lateus, C. I. ooncolor, C. splendens atroviolaceus, venustus ooulatus, v. oitrinus, v. parparasoens, v. rosens, V . vesta,

Messrs. Wallack sam up the cultaral procedures best adapted for these plants as follows: -" Garly planting [in September, Ootober] to a depth of 3 inches in a light porous soil, sunny position, protection from heavy winter-rains, but no ooddling, plenty of water whilat in full growth, and thorough ripening of the balbs either by taking them ap or by placing lights over them." We should be glad to hear the experience of those who have cultivated the plants in pots.

The following notes on the flowers submitted
to us may serve to oonvey some notion of the colouring of the varieties, though nothing but a well-eresuted coloured illustration can suffice to conver any adequate idea of their beauty:-
"C. splendens atroviolaceus."-Flowers upwards of 3 inchea acrom. Sepals linear-lanceolate acuminate; potala pale lavender, with a small purple blotch a the very base, elsewhere self-coloured, thinly beset with white hairs; filamenta deep violet, ovary glancous, pale violet.
"C. citrinus."-Flowers upward of 3 inchen acrosi ; sepal oblong-acuminate aristate, greeniah externally, with a amall eye-spot in the centre of the inner arface; petais canary-yellow, with a median parplish-brown aquarish blotch; claw with numerous fine radiating linear spota, and a central crencentic band of orange hairs pointing downwarde ; stamen yellowish; ovary green.
C. luteus."-Fiowers upwards of $2 \frac{1}{2}$ inchas acrom Sopals oblong, tapering acuminate, green, convex ex ternally, yellowiah internally, with a fow purplish brown atreake and lines ; petala canary-yellow, with no blotch, bat nameroas amall radisting parplish linen in the centre, and a broad crescentic tuft of orange hairs pointing downwards; flamente and ovary yellowiah.
"C. oculatus."-Flowers upwards of 4 inches acronn. Sepale broadly oblong acuminate, greenish internally, with a central purplish-brown apot edged with canaryyellow; petala creamy-yellow with a central blotch as in the sepala, but larger, claw with numerons minute radiating purpliah lines or apote, and provided with a creacentic band of orange-brown haira; atamens cream-coloured; ovary glaucous.
"C. venustus pictus."-Flowers apwards of 4 inches acrone, epaln recurved acaminate, aristate, apoted and blotched on the inner aurface. Petaln creamywhite, blotch irregularly wedge-shaped, reddichbrown, aurrounded by a thin band of pale yellow, claw with reddish-brown apote and hairn, and a central circular pit. Stamens pale pink, Ovary greenith.
"C. Vesta."-Flowers upwarde of 4 incher acroma, sepale broadly oblong, aristate-acuminate, recurved, greenish, finely spotted on the inner surface; petale pale lavender, with a central reddish-brown, square blotch, surrounded by a halo of yellow, claw marked with minute reddish spots, and with a ring of gold and brown hairs midway between the blotch and the bud. Filaments and anthern cream-coloured. Orary glaucoun, pinkish.
"C. roseuss."-Flowers upwards of 3 inches acrom Sepala green, oblong, acuminate, aristate, with s amall purplish blotch within at the base; petall cream-coloured, with two oblong blotches, one above the other in the middle line, the apper pale, the lower rich chentnut-brown; claw with a central aqurish pad of yellowish hairs, and numerous fine reddish-brown radiating atreaks; anthern and ovary pale.

## Prolessor <br> Huxley.

The death of Professor Huxiri most industrions, persevering, and olear-headed students of science and philosophy in our times. His work is remarkable, not only for quantity and diversity but also for excellence. Theseare qualifications which will be best appraised by his colleagues, but his lucidity of exposition, his disinterestedness, directness of purpose, and we are afraid we must say his pugnacity, gained him the ear of the pablic. It is as the great apostle of Darwinism or rather of "evolution," that he is best known. Darwin himself was the most modest and retiring of men, shrinking from publicity, averse from controversy, and considerate to his opponents to a fault. Such a man was considered "fair game" for the wielders of ridicule, and an excellent target for the heavy artil lery of those who, eminent in their own department, considered that they should have the monopoly of orthodory in matters of natursl science also. Understanding nothing of the
subject, except at second - hand, fearful of assaalts that would never have been made, they assailed the athor of the Origin of Species and his book with a virulence and one-sidedness which seem unacoountable to the generation which has grown op since and takes the general principle of evolution as a " working bypothesis" as a matter of course. For the condition of things that existed at the time, Huxlry was just the right man. Generally well read in science, literature, and philosophy, exceptionally familiar with the details of his subject, clear in logic, incisive

DENDROBIUM $\times$ ILLUSTRE (chryeotoxamp. Dalhouaieanam (). - Even so far as can be jadged by its firt inflorescence, secured after something like ten jeart carefal tending, in this showy bybrid we have a remarkable instance of the good work of the hybridist in producing new garden plante. The apecies cronsed are an diasimilar as they can well be, and have little in common, except that they both inhabit Barmese territory. D. Dalhounieanum was first introduced in 18s7. and D. chrysotoxam eome ten years later. The former has tall terete ateme, leafy when young, and the latter clavate pueudo-bulbs, bearing a few leaves at the top, and jet in Mears. Veitcr's bybrid the smalgama-
lip being parple. It is a remarkably interesting and beautifal plant now; when it wat exhibited by Measin. Jas. Veitcre \& Sos at the meeting of the Orchid Committee of the Royal Horticaltaral Society, June 25, it received a Firat-clana Certificate.

Royal horticultural Society.-The next meeting of the Ryal Horticultaral Society will be held in the Drill Hall, Jamee Street, Victoria Street, Weatminajer, on Taeedny, Jaly 9, when a special show of Roses will be an attractive feature. At 3 o'cloct, Mr. Francrs Darwis will deliver a lecture on "The effecte of Darknese on the forme of plants."


Fig. 4.-dendrobitu $\times$ rllustar: flowers yellow; hip purple
in speeoh, he rushed into the fray, and the railers and vituperators soon found they had an antagonist who could, when neoessary, use their own weapons with overpowering efficiency. One may regret that each party did not keep to its own department, and we must deplore the unscientific temper that was manifested, but we must remember the provocation, and bear in mind that the means used were at the time the only ones that could be appreoiated.

HUxley, though a nataralist in the broad sense of the term, contribated little to botanical, and nothing to horticultaral literature. His paper on Gentians, in the Journal of the Linnean Society, is anggeative rather than practioal.
tion of the two in diatinctly traceable, the awollen atems and fleshier leave indicating D. chryootoxum, while the way in which the leaves are borne, and the characteristic light line on the aheath covering the atems, point as concluaively to D. Dalhousieanum. The flowert also in form merge the two parents, and it will not be too much to may that es D. Dalhousieanum often has tea or twolve flowers on a spike, and D. chrytotoxum often two dozen, sufficiently fine inflorescence, wo far at number of flowere go, may be expected from the hybrid on ite gaining atrength. A curioas circumstance in the resemblance in some particulars which D. $x$ illatre bears to D. albo-annguineum, although its flowers are thicker in substance, and of a clear, shining atraw-yellow, the markings on the downy

Floral Decoratione at Windeor CastleAe belte the reaidence of royalty, on the occasion of a visit from a foreign potentate whom Her Majenty wishe to honour, the art of the gardener is nearly alway called in to aid in imparting an appearance of gaiety to the rich appointments and furnishing of the State apartments at the Cattle. And such was the case when, on Her Majenty's reception of the Searzada on Taenday last, we had the pleamare of inspecting the floral decorations. Mr. Owes Thomas, the ruyal gardener, hae a good eye for effect, and whilet not atriving in the least after eccentricity in arrangement, $s$ is the habit of some, he attain very aatiafactory reault by the use of a few apecien of plante and flowern inatend of a maltiplicity, and by the avoidance of any urdue crowding.

The general scheme of arrangement war one precisely adapted, an regarded some parts of it, to the nummer season, namely, to fill up the fireplaces with planta, to flank all doorway with amall groups, and make assemblages of plants in apaces that admit of its being done by their remoteness from the cuatomary lines of traffic through the various aloons. The only departure from these ideat wat that remarked in St. George's Hall, which will be noted farther on. The grand ataircase, with its white marble statae of Gzorge IV., and bronza figures of naiade, wan beautified by a group of tall Palome, atanding apart from, and a little lower than the statae, the foreground being filled in with Codirame (Crotons), which have foliage with yellow coloura predominatiag, anch being conaidered more cheerfal-looking in the balf-light than the richer-coloured varietien. Other plants consisted of pink Hydrangeas, yellowflowered Margueriter, Liliam longiforum, and beaides these a finishing of Adiantam, Panicum variegatum, and the like. Spray of the variegatedleafed Lonicera and Ivies possessing small foliage hang down over the solid, low walls of the staircase; and on the top of them were disposed Hydrangear, Cape Pelargoniams, more yellow-Howered Margaerites, and the seldom-ased Hamea elegana, pro-fasely-flowered spraya or plants of Rona FálicitéPerfétue, clothing the amall pillars, which gave a finish to the head of the atairs. The wall behind was slightly masked by alender Palms, as far as regarded the large bare epaces between the lancetthaped windows. Small groupa were diaposed on either hand a little further on under the arch, beneath which is the aoproach to the ante-room. In this room the large fauteuil was topped with a cluster of gay-coloured Caladiams of moderate nize, surmounted by a nice apecimen of Pandanus Veitchi. A doorway wae here maoked by a fine piece of Alocania metallica, nome Palmar, Codiæums, and Kalonanthen coccinea, with a bordering of Pilea muscona, Ferns, Solaginella denticulata, Isolepis, and other dwarf plants. The veatibule leading from this to the next one-Nelson's room, so called from a white marble buat of the hero perched on a piece of a mast of the Victory, was flanked on each side of the two doorn with Palms, and a few flowering plants of a kind to afficiently light up the rather darkened place. An imposing group, consiating of Liliep, Kalonanthen, Marguerites, and Codixams, filled the fireplace in the Nelvon-room, and a amaller group was arranged on the opposite wide. St. George's Hall is entered from this laut apartment, and is lighted by eleven very high windowa, all on one side. In each window was hung a banket of cut flowers of one variety, the bakets being literally covered in every part with them; and the flower-long apray and apikesconsisted of a white variety of Intermediate Stock (epridg-kown, an Mr. Thowas remarked); Caneia corymbona, the only yellow flowere employed for thia purpone; Sweet Pea Her Majenty, a deep pink, proface-flowering variety, which filled five of the baskets, and the stocks also five. The windowseate were filled up with much the same kind of material as that previouly noted, with the addition of Glozinias, Hydranger paniculata, the white blownom and graceful habit of which render it an almont ideal plant for indoor nae; Spirea Aruncus and 8. Bumalda, Dracenas with coloured leaves, Francon ramona, Gladiolus The Bride, with Fern, Iwolepis, \&c., as a finish, A group of Palmp, Codimams, Dracæoas, and miscellaneous abbjectim made an effective filling for the enormon fire-place, which finds a place on the side of the Hall opposite the windowe. Some tall, slender Palme at a doorway, and fanking the throne, completed the deaign of the decorations. A capital method of showing off the flowering sprays of Bougaiavillea was retoarked, which being new to up, may be denerving of mention. A Kentia or some auch apecies of Palm about 5 feet in height is selected, and into the axil of each leaf a long flowering shoot of Boagainvillea spectabilis is etuck, the whole forming a very pretty hind of floral fountaic.

The Gardeners' Royal Benevolent InstiTUTION. -The fifty-nixth anniverary featival dinner of the Gardeners' Royal Benevolent Intitation took place on the evening of Friday, Jane 28, in the Whitehall Rooms of the Hôtel Métropole. The Dake of FiFB presided, and the nomerous company included Sir Trevor Lawrence, Preaident of the Royal Horticultaral Society; and Mesars. G. A. Dickson, N. N. Sherwood, W. Gibbs, T. Ellis, Ed. Siern, G. J. Brackenridge, David Syme, G. Monro, Jan, Webber, T. F. Peacock, F.S.A; G. W. Dawes, W. J. Jeffries, E. W. Cathie, G. Bighop, \&ce. In proposing the toast of "Continued Saccens to the Inatitution," the Chairman aid that in thene days, in apite of universal depression, enormons sums were apent every year in charity, and last year in London alone there was disbursed by the different societies and agencies which existed for the parpose no less a nam than $£ 5,200,000$, to ay nothing of the very considerable am which coald not be calcalated that flowed along the hidden channels of private benevolence. Bat, nafortanately, these hage sums did not bring about the beneficial reaulta which we all desired, because there was not sufficient concentration in charitable effort, and becanse there were too many mocieties doing the ame or similar work. His remarks, bowever, did not apply to the Gardeners' Benevolent Institation, for it was, he belheved, the only society of its kind in Great Britain. Its principal object was to asaist the aged and infirm by means of pensions, and it incalcated the admirable principle of self-help by giving preference to those who had sabscribed to its funde. Now-adays it seemed as if all parties in the State had agreed to do that which was regarded as tneroughly uasound by the old Whig achool in which be was brought ap, namely, to establish a syatem of Stateaided pensions. But the Gardeners' Bonevolent Iastitution had been doing for many years for the gardeners what the State now proposed to do for everybody. The life of a gardener was not entirely a bed of Rozes. Many had to toil unceasingly at all timen of the year, and in all weathers, and the result of their toil was to provide as with some of Natare's choicest gifts. Bat misfortane sometimes overtook them, and it was to meet cases of this kind that that Institution was eatablished nearly sixty years ago. Since then penaions and grataities had been granted to the amount of $£ 65000$, and at the present moment 156 persons were receiving the zasistance of the Society, 77 of them being men, and 79 women, while there were manay pressing cases on the list waiting for e'ection. The toast, which was heartily received, was reaponded to by Mr. G. A. Drekson of Chester. Mr. W. J. Jeffries of Cirancester gave the toast of "Horticulture," which was acknowledged by Sir Trevja Lawrence. The Sacretary, Mr. G. J. Ingrair, having annoanced sabscriptions amoanting to nver $£ 1900$, including $£ 30$ from the Dake of $\mathrm{Fifg}_{\mathrm{I}} \mathrm{£} 105 \mathrm{from}$ Messis. Rothscmild, 10 guineas from Alfard de Rothschild, Esq.; and $£ 10$ from the Hoo. Walter Rothschild, $\pm$ '2l from N. Sherwood, Enq, and £25 from Mesars. Jamis Veitch \& Soss; the proceedings closed with the toant of "The Chairman," proposed by Mr. N. Surswood. The Dake of Westurnster has increased his annual nabacription to the Iastitation, of which he is President, to $£ 1515 \mathrm{~s}$.

Univergity College, London. - On the evening of the 27 th alt, the President and staff of this Institution gave a largely attended aad brilliant conversazione. The scientific and engineering departmente of the College, and the Slade achool of fine arts were all in gala array. The department of botany was well to the fore, and its exhibits included saperb collections of plants from well-known growers. Mesers. Jaikes Veitch \& Sow eent an interesting collection of infectivorou plante, hybrid Orchide, and other plants. The hybride, being grouped with their parent forms, made a particularly intereating exhibit. Mesert. Wx. Paut \& Son had a fine diplay of Rosen in the soath cloister, the fleshcoloured Clio, Dake of York, Hon. Edith Gifford, and the yellow Medea being particularly admired. A large
collection of Cactaceæ and other ucculent: did fall juatice to Mearrs. Henry Cannell \& Sons; whilat Meaors. B. S. Williams \& Son and Mr. T. S. Warb both sent attractive and well-selected exhibits. In the botanical laboratory was a group of portraits of former members of the botanical staff, including a large crayon portrait of the late Prof. John Lindiky (lent by his an Lord Justice Lindlex), a head in oils of Professor D. Oliver, and photographs of Professor F. O. Bower, Dr. D. H. Scott, the Rev. George Henslow, Profensor F. E. Weiss, and othera. Here also was a selection of old Hower-drawinga by Ehret and Madame Meatan, large photographe of forest vegetation (lent by Dr. D. Morris, Ansiatant Director, Roya! Gardens, Kew), and photographa of plants at Kew, by Mr. F. A. Bridae. Oa the tablen were exhibits of physiological interest, and a few alides of fossil plants from the collection of the late Professor W.C. Wilciamson. Of apecial note were the large models of dividing cell-nuclei exhibited by Profesaor J. B. Fariler; they are likely to be of great help to the stadent of minate cell histology. The laboratory had been very skilfally decorated by the lady atadents of the department, and the banks of flowers which they had arranged, and which were illaminated by the electric light, were singularly effective, as also was a tank of white and yellow Water-Lilies. A neries of living Seaweeds and other aquatic plants, shown as transparencies by this department were much admired, Ulva, Laminaria, Cladophora, and Utricalaria, were perhaps the most beaatiful. Other botanical exhibits incladed phosograph and tables illustrating the fixation of free nitrogen (lent by Sir Henry Gilbert, F.R.S.) plant akeletona, by Mrs. Hodakinson; and artificiallycoloured flowers, by Wm. Brocíbank, Eeq., F.L.S. In the Slade achool we noted an effective combination of flowers, stataary, and Chinese lanterns; and in the phyaical lecture-room, Argon and Heliam, the main output of the chemical department of the college during the session, were on view. The soirée was attended by several thounand gresta, including many well known in literary and scientific circlen.

ROYAL BOTANIC SOCIETY.-At a meeting of the council of this aciety, held on Saturday lant, it was decided to open their gardens in Regent's Park to the pablic on every Monday in July, August, and September, at an admission fee of 18 .

An Outing of the National Amateur Gardeners' Association,--On Saturday, June 22, in response to an invitation from H. Hocks Gibes, Esq., opwards of 150 members of the National Amateur Gardeners' Association paid a visit to Aldenham Honse, Herts, for the purpose of ingpecting the gardens. The headquarters of this Society are in London, and meetinga are held the first Tuesday in every month at the Memorial Hall, Farringdon Street. In order to promote the objecte the Society have at heart, visits are made during the pring and nommer months to various gardens and nurweries. The parent Society number between 400 and 500 members, beaides branches in different parts of the country. The visitora, amung whom were a number of ladies, were met on their arrival by Mr. Beckett, the head gardener at Aldenham, and nomesmateurs resident in the neighbourhood, and conducted by him round the lovely gardens.

Herbaceous Plants.-Now that thene are in full meason, we haaten to announce the pablication of a Hand List of herbaceous plants cultivated in the Royal Gardens, Kew. We must defer further notice, but may mention that it may be obtained at the Royal Gardens, Kgw, at the cost of one willing.

The newcastle-on- Tyne Horticultural SOCIETY. -The sammer nhow of thin society will be held in the Recreation Ground, North Road, on Wedneaday, Thuraday, and Friday, 24th, 2Jth, and 26 th inst. This year additional prizes are offered for groupa, dinner-table, and fireplace decorations, and also for vegetables. The council are also prepared, as we are informed, to give increased facilitien to attractive tráde atands.

The royal Gardeners' osphan Fund.The monthly meeting of the cromitipe took place et the Horticultaral Clab oa tha 27 th alt., W. Marshall, Esq, preaiding. The fo lowing special donations were simouncent: - From the William Thoman Mamorial Fund, $£^{\prime} 5513 \mathrm{~s}$. $2 d$; Mr. J. T. Anderenn, R. I. Mesaure. Esq. proceeds of skle of ebird edition

Cypripediam. Hybrid Species," £T 10.; and Mr. A. Stirton, Wrexham, 5s. A cheque was drawn for the children's quarterly allowances, which now smount to $£ 2 \mathrm{OH} 10 \mathrm{~s}$; and the gardeners about the couatry who do not yet subscribe to the Fand or sapport it in any way should make a note of the face that so large a amo is paid annually to asnist in the mainenance of the orphan children of dead gardegers.

The Oriain of the Cineraria. - We have som, farther remerk to make on this subject, bat defer them for the present. In the meantime, we observe that our colleague The Gardeners Magazine "conclunively prove " [co his own satisfaction] that the evidence in favoar of bybridity will not bear examination. An important statement of fact from Mr. Kelway ia pablished in the ame joarnal, to the pffect that be. Mr. Kelway, raized the florist' Cineraria in 1837 . by election from seedling of C . cruenta. If the records are to be relied on, thil is ten years after Drommond's experimente, but this, of course, doe not inpalidate Mr. Kelway's statement. We shall also have to refer later on to the alleged hybrid that have appeared in the Cambridge Botanic Garded, and in that of $\mathrm{M}_{\mathrm{r}}$. Poer.
M. Rodigas - Sjme of the Bilgian paper givo fall detaile concarning the compliments paid to M . Eurice Rodigas, the Director of the Schoal of Horticulcare at Ghent, on the occasion of his completing thirty-five yeara as a professor. Many of us in this country are also familiap with the unceasing labours of M. Rodigas, his accaracy of perception, his impartiality, his powers as an administrator, and some of us are fortanate enough to reckon him an a personal friand. MM. Borvenice, Pynaert, Rodians, and Van Hucle, conatitute the "four-leaved Trefoil," a body to whose joiat effurt for more than thirty yeara no amall part of the progrese of Balgian horticalture is due. The talk of this foar-leaved anity is Count De Kerceove de Draterahem Floreat semper diuque foreant.

National Horticultural Society of France.-A: the lat meeting of the Orchid Committee of the National Horticultural Society of France, Mr. Jacob, Orchid Foreman to the Baron Ed. de Roxaschild, Armainvilliers, showed a magnificent groap of new hybrid Cattleyas. I noticad amonget them a particalarly interenting plant, Cattleya Armainvillea slba (C. Meadeli $\times C$. Rigas), potals and sepals lurge, pure white; lip broadly opan, crimson; pare gold yellow at the bate. Another plant of the same crom had the divaion slightly flathed with clear row. A pleadid thing is Lax'io-Cittleya Jacobisna (Lalia parpurata $\times$ Cattleya Mandeli), the division of the flower white, tinged with rosy-mave colour; the front lobe of the lip dark crimson-parple, and the base nearly white. A fae Lalio Cattleya Canhamiana, raised from I。. parpurata $\times$ C. Mossiæ, was shown the parentage is certain, and the plant is exsctly the mame as the one obtained at Mesury. Visitci \& Sons Mr. Page, gardener to Mr. Lebsudx, Boagival, exhibited a very hadsome new hybrid Uypripedium; the parents are C . Berizatum and C . Haynaldianum, and the plant which remblem C. Parishii, received the name of C. Labaudyanum: cape with six flowera each having it dorsal wepal emerald-green at the base, vertically atreakpd with brown; petals twitting, pale green at the base, and vinous-parple at their extrenoity; the whitish inferior wepal in very large and arched. Thin plant received a first-class certificate, Georges Truffunt.

The Late M. J. E. Bommer.-We have received a biographical notice by Prof. Leo Eresra of the
late J. E. Bosmer, whose name is well krown in connection with his monographs on Forne. M. Bommer, it will be remembered, was a native of Brumels, and hia death took place last February.

## Home Correspondenoe

THE BTRAWBERRY, SENBATION.-This Strawberry has tarned out well with as thit season. Pisated on a border by the side of Noble, it has ripened it fruit an early an that variety, and the frait is very much fiser in appearance, and of better favour than that variety. What its merits may be for pot-work I cannot say, but I intend to give it a trial nexp seamon. If we coald only get some of the Britioh Queen Glavour in the large early Scrawberrifs, what an acquinition it would be! W. S. Hurlstone.
bamboos and the pabt wintern-Mr. Beani instractive paper on the subject of $B$ amboos and the past wiater, is most interesting. His cooclasions are fully borne out by our experience here. As regard Canon Ellacombe's angeation, that the severe winter has actually been of service to his Bamboos, I ahould rather be of opinion that the great bhoote to which he alludes are due to the wet summer of 1834, which greatly encouraged sootaction, and, consequently, the stem-bud which are formed on the rhizomes. Tasan-chilee, which he mentions an being killed, is not hardy, and woald die in any ordinary Eaglish winter. It is supposed not to be a native Japanese plant, but a degenerate form of one of the giant tropical Bamboos, partially acclimatised in Japan, bat doomed to certain death here. Its position in Japan would be analogous to that of the Japanese and Chinese Bamboo in this country. We can grow them, bat in a dwarfed form; and if they were to be carried to a atill more unfavourable climate, thay would parish altogether. A. T. Fraun Mitford, Batsford Park, Moreton in-

THE CINERARIA. - As anthentic records are wanting apon the early history of the aubject, a few experiment ought to be made with the view of avcertaining the value of the two conjectures. If it originated by the crossing of cruenta and lanata, it was evidently not denigned, and it may be waid that our greenhouse Cinerarias came by chance. A fow plant of Cineraria cruenta when in flower shonld be isolated, 0 at to make nure againat their becoming pollinated with other Cinerarias; seeds should be saved from mach a stock, the need nown, and the plants when in flower carefally examined for variations. Then a few plants of Cineraria craenta might be pollianted with the pollen of Cine. raria lanata, and vice versá, saving the seeds, and raising plants from them, and watching the results. As far as my experience goen, the seede of Cineraria cruenta ars not abortive, as is stated in the Botanical Magazine, for a plant which was in flower in thene gardens a short time ago has prodaced several seedlinge, many having aprung up from the aurface of the soil of the pot in which it was grown, also from the seed. gathered from the plant. And I can endore Mr. Drammond's remark, that "the flower retain their beauty until the very day the seeds are cattered." It may be that oar plant had become pollinated by the floriata' Cinerarias, which were in bloom at the ame time as C. cruenta. These aeedlings from C. cruenta which we bave will be watched with interest, to note whether any variation takes place from the parent plant, and I will send you a note apan the subject in due season. Mr. Duagla: has expressed a wiah for a plant of C. cruenta and C. lanata. I hall be pleased to send him a plant of the latter and two or three seedling of the former for experimenting apon. if he is not already sapplied. Win Harrow, Botanical and Horticultural Society's Garden, Sheffield.
cedar of lebanon at Tapley.-The height of this tree is about 50 feet. It top is large and flat. It was planted in 1825. W. T. T.

RED WATER. - I have in my garden a wall poad of about 500 quare yarde area, with an average depth of about 2 feet. It is contained in a cemented basin, and is applied by means of a hydraulic ram from a deep apring a quarter of a mile diatant, the water of which in enpecially pare and bright. In each spring time for nome yeara pasf the water of this pond han turned a deep blood-red coloar, in

Which atate it remain for some monthe, and then it appear that the colour is dae to namberlest red coloured organiome, which. sccording to Prantl and Vises, are relerable to Hamatococcas. I do not know whetber this red water is often seen and well known, but as it ia very ansightly, I should beextremely obliged to anyone who would tell me if there be any mean of destroying the growth, or of preventiog ite recurrence. S. Courtauld, Bocking Place, Junc 26.

8Quirrels. - The note of 1)r. Morrie regarding the iujury to acariet Chestants by thee aprightly hittle thieves is very interesting. I have known them injure the thoote of the Scotch Fir in the anme way: here they eat the green cones of that tree by handrede, but fortunately they do not iojare the trees. Ineir power of adapting themselven to altered circumatances is m extraordinary. I believe they diaposed of at leat a buehel or two of my Parsnips during the lat winter, and now they eat my Strawberriea by wholesale and bite the nets to pieces. Last aeaon Applen and Plums were annexed in large quantitie. Daring the winter one little fellow came regularly evary morning on to the all of my breakfat-room window. If gave us great pleasure to see him ait and manch up pieces of bread which were provided for him. The mont extraordinary freak I bave ever heard of squirrels in the following: I bave a bell to ammon $m$ workmen, which is hang in a little cage about 15 or 20 feet high. The other day, when the time came for ringing the bell, a squirrel was found sitting by the bell, his mouth full of frayed hemp, and the rope bitten in two. We presume he found the soft hemp suitable for lining his neat, and my bellman bad to climb up to fix another rope. Query: Did the equirsel find the rope frayed, or did he manufacuare a soft wadding from the rope? Charles Noble.

HEAVY THUNDERBTORM.-A thort note of what happened at Edge last week may intereat some of your readers. At 4 P.M. on Jane 26 a thanderatorm suddenly collected in the sky after a brilliant and scorching day. About a thousand flashes of lightning, all within five or mix miles, occurred in an hour, during which I eatimated that nearly 2 inches of rain fell. At one time I counted over thirty flames in a minute. Toirteen large treen-there may be more yet to be discovered-were atrack within about half a mile of my house, twalve Oak and one Ath, aix of thase were within 300 yarde of the house. At five o'clock the torm had all passed over. The next day, June 27 , at balf-pasi twelve, we had another sharp thunderstorm, lasting an hour, e fall of large hail, lasting twenty minutes, completely demolished every open flower in the garden, and many of the plants. The Rhabarb leaver are a curious sight, looking as if they had been used for rifle targete. A few cattle were killed in the neighbourhood, but, a far as I have heard, no human boing*. C. Wolley Dod, Edge Hall, Malpas, June 29.
gTORM IN YOAKBHIRE. -The atorm of Juae 26 was the worst the oldeat man in Mirield could remember. The hail was as big an marbles, and in mogarden of nearly 2 acres in extent, Peas, Beans, Strawberries, Rupberries, and all vegetablef, flowert, and everything else, were completely destroyed, and rearly every pane of glase in the house wan broken. I am by no means the only one who has nuffered, but when man is depending on hi garden. it is a serious thing. D. Brown, Nab Nurseries, Batiyeford, Mirfield.

VICOMTESBE HERICART DE THURY BTRAW BERRY.-The engraving, p. 775, well reprenent this fine variety at ita best. This variety was a favourite with Mr. Wildmith, of Heckfield Place, for early forcing, and none conld he obtain that wai better for ripening in the middle of February-in fact, he regarded it as being the bent Strawbarry for forcing or ont of doors. It fiavour is excellont, and in thi respect it it only second to Britich Queen. It is a aplendid cropper, bat unfitted for market, the berrie being mallioh, and ite favour does not make up for it want of size. About Liverpool the Vicontense way alway a favourite variety, it going there ander the name of Garibaldi. So little is it known out of private gardens that in this dietrict, where at leat 1000 acres are devoted to Strawberry caltare, I do not know a aingle inatance of itw being grown for market. It in a very free grower, and a very hardy planc, with ample foliage, which in chort-atalked, if the bulk of the old leave are removed when fruiting is over. $E_{s} M_{\text {. }}$

OLD AND MEW VAMETIEA OF BTRAWdERRIE There is nothing new to be end as to old a an latrola
 imatation amald tirat
Wundar，rigared ia
March 1：3 shis year



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a number of amall oave，and ta bowes day whan wary． It is diatiact is arowtb，and remarlable for the

 may bo plucud elower boyectimp．Aabither navelby thas I som plosexd wish，ant which peomeen bin become a atandard forcesp，in Riyal Suveremen，wich hat been asultitat longth of that la cu＇bration bo have it qualities teated．It is a groud foremp，and ite rich，briak．Dupm thenar is a strona d mas la ise favoar．This is a varsaby that hat a futare．an 1 I am riad so note the old practice once pary arear of standias the plante ia suncers，of on decayod manare，is littlo practiond．It was the caum of
 dranaye belag as tesoatiol us．free crreulation of air in abcamiay the pmefection of Harous．High shalves in loresa bonase wre sob good places in which to ramed the plante．Alewr April to ous the soil woon gete dry．givinu modity to the Proise and tho sarpounding aplitisy favoer rad opoder Dombetess，it was with the whem of sbocina thew ic． srile that the nacer and loyer of awaure morm thought of．The lece－forcod placto are mach bettor nceomamodaked on a conl hard enol wh bottore．io pite or frames，giving maeh las wroble in reserd to ret－pider and is tho metter of waterteg．Tie oely tronble incurred it in raiviag the buneboe of frait by mans．of cratehes made ons of forked twice．．00 as th briag thexs ap to the light．and to a part where tharw a free curreat of ar．Recaraing so acw rarimbes． masy any harm that I intend to rrow Hoyal sownemea lergely，for boviles being a rood entian frout is pacion grandly：tho ands covering the fruite an completaly that at the ad of a lnog ymaraey by railway tho fraite sppear quite parfiot rion verioty was reowaly， prated by the IPexit Comastemo of the Royal Hinctr－ caltaral suecesy as a lorcer，ond for isa briak daroor and fraithalases．Auecher anvalty io Gaveoc fack
 trio which Mr．Allo pmenely zave us．It asy an s tavour minal Earprew of Iadia，which io the
 withoest inspidity，with nalp that very firm in watare，ad to handwome dark－colournd fruhe in atape beemoer conieal and cockneomb，and a peolifis hatrot．It inay be foreed en at so fraib in March． followina Vicombeas H．do Thury or L．Girnes Sacraso if will surtiaily plean the groump．A nowlity that I have krowa Shis onawn in Mar If rees；
 dithough bwaring a remmblance to sir J．Pastoe io thapt．is mach earlies，of better ilevnur．and larime． It is a fre bearme．and of grod hevour．A oer．
 ＊fow fruth conawhat remonblinie Royal Alovervig Thape sod colow．It is mat in be a croen betomee Nobla，thich twe mothoz bet isa to recomumet it and Labest of All．Ts fet the best rweality in strawbery forevar，espma reacort showld be obleived at awly a poseible from planet thos have boes deprrmed of their tawer－hrumes．G．Wythes．

[^2]
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 Eixig Haw．M M Mes．

## PHILADELPHUN，BいIIE TABARET


 iteoif is a lapbrid botwone f．comenerres and fr miero． phollas fir．i．D．13．The sovers of the append ewro imprognated with palle of a doulb incowed fortit of copocmive，ated the rwalt is．thi dealile． sowared forp with large plite knwop，lavioc the
 ot the lat mantint af ets Hoter Howsuentispol
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## SOCIETIES．

## ROYAL HO日TエOOLTORAL Bciantisc Commistes


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Che variaty Caroline Kuster; Mr. F. CAMT being zad with
Mario Yan Houlte.



coman 2nd
uars were in immannom abuadance
vious experi" ace-far too many. nod for too crowided. The


 Co., Colchester. \&c. In the compo iftion tor tweoty-four buncher, Mf. W. Prichand. Chri , elohurcho was lot. 30 d Mr.


 eetione: Bome limit thould lun pur on thee

Wante gr. to the Hod. Col. Talbor, Eobor. was lat in the




 in ularimet the var.uties ohow b, but both in theo classee and is the cot tageri' action they wero ir ist rate.

## national rose exhibition at GLOUCESTER

## Junir 2\%.-This was a most accenfal meetiog

 In almost all clases the competition was numeroa, and in many it was exceptionally cloes. The Mayor accompanied by the sheriff and weveral of the council, nito the Maror of Cheltenham, opened the show. Good as Windeor was last season, the presentamong these after the most prifeot apecimen, Comtense do Ludre, Was removed. Mr. B. R. Cast, Colchester, was Do Dufferin, Comtese de Nadaillac. 8 . M. Rodocinachi - Ear Williama, Her Majenty, Caroline Testout, La France, Dupuy Jamain, a od Lady Mary Fuzwilliam.
seven competed in a chas for twenty-four singles, Mesart Townshusil \& Sow. Worceater, wianing with a good stand nmong their best flowers being Rubens, Marie Bady. Charles Iufnuvre, and Gugtave Piganneau; the 20d prize ctand, from In marn. Coourxi \& Boxs. Bath, was larger, bat not so well ormed.
The strongest clas was that for twenty-four varieties, three trusees of each, ten competing with remarkably close stands. Messrs. R. H\&Hh NEsh \& Sons were lst, showing in suparb form: Mr. B. K. CaNt, Colchester, was place 1 zad, his lot ubing particalarly bright and clean, but maller.
Mr. B. R. Camt, Colcheater, was well in frost for twelve uingles of any H.-P. Rooe, and etaged - doren beautifal Lady Mary Fitzwilliaza: Mesme. Townsiemd sons, Worcester 2nd, with Mro. J. Laing.

There wat a very utrong and cione competition in an extrin lam for twelve niagle tromes, open to all umateurs irrespec live of the pumber of plant grown. The Rev. J. H. PEM BERTos, Havenigeatte BJwer, waw lit with a rood otand V'Irch Brunser. Gabrielle Luizet. Horace Vernet (a grana liooms), Marre Bumann, Rarl of Dufferin. Gustave Pigameau. Acc. Mr. K. H. Lindmell., Hitchin, a cloee 2nd, had youdger liwern, and in all prombality a couple of hours later in ulding would have seen these iwo redoubtable growerm in reverme pomitons. Some mintun or meventeen lot were staged. A clans 'os twenty-four dinfloct, muklen, wan also pery atrong,
 ia:ned a bloon markel i. cuecter " but ahich way far too noarly ble Marie Raty in every reaper?. Il was a good bloom. Othere that demerve mention were Ionocente Mirol Marie Vierdier, S.-M. Rodocmachi, ant Her Mrjaty. Mr. E. B. LiNIMLLL. Hitchos, wan 20d with remarkably gool example of Comse Rammliaud, whise Hep Mijsty. Ihake of Welliagton. Marie Baumand, and Horace Vernet were also grand.
A clam of enghteen siogle crumes. dintinct, open only to prowers of lem that 2000 plante of reoggaited exhibition "arietion, found Mr. J. Pamere, Hitchin, good let. His bent blooms were La Irames, Gibrielle Luizet, Innocente Pirola, and Ducheme de Vallombrome Mr. K. Kawley. Rerkhameted, wim Ind, and bel Hurace Veraet ia eplendid ondition.
In a clan of mix distibct, three hiom of each, sleven comrelitorn lupded up. Mr. E B Livragels, Hitchía, wan let having very bonghe and cleap flowern. Mr. WALTERENW, Ledbury, made a rood 2my
Twobe sangle trunms, distinct, for grow ors of len than 100) Nirubition loum, Int, Mr. Conwar Jomrk. E Eeslecote; 2ad,
 Hearington. The beat bloom in thi clan wan aplendid Oome de Nedailluc is Mr. Parker's stand, the Innocente Pirola ia Mr. Laverom"s, adt the beatiful Souronir d'Elive
 A class for manteare growing les than 500 plantm-ais ming mo dintinct. weat to Mr. G. Moclus, Hitchis; Mr. H. P. Lavimin, Rrentwood, was and.

An extra clam. operionly to thome entitled to compete in the tw procediag. prodeced sight compettore. Four varietien, three blocmes of ench, were thown here. Mr.O. ©. Okpirn, io clemter, was lity; M. Cosway Jomis, Huocleten, was ind.
For sia bloome of eny hose but a Tea or Noisette, and open th sll amateurs. a wery even and good half-a-dozen of Horace Vernet won for Mr. E. B. Lindonill ; Her Majeaty takieg 2 ed for Mr. W. Dmw.
Is e clean of twelve busches, dietinct. Mp. H. V. MacaIN. Gutetiord Hell. Worksop, was Int with very prelty banches.

## 

Very mildom have we better Tean. Mewre. D. Pmos A Bnws and Mr, $\mathbf{F}$, CAMT's sote were indeed grand
To the premier clam of twenty-four single trumes, dietimet Mewr. D. Paron \& Bor. Colchenter, were let, theit beck row roneseing of Le Bowle dror, Wiplsetom, Ruben, Rubel Brawe
 and Comteme de Nadarllec; middle rew: Soureair d'Kitm Vardon, Marrohnl Niel, Albe romes, Maden Hoote. Souvenit ifun Ami, souverur do \& A. Pince. Madame Cumin abd Int

 Amazone. Mane Guzllet, man Mane Ven Houtte The Ind prize lot of Mr. Feaw Cast monteinet the dalver Malal Tms in Fdith browniow, nad slop evtra good examplen Modate Cume Fith Gifford, Garoline Kouter, aso Oorima
Twelre dintinct minele were well mhown, Mr. L Tamsmence Contiff, heins lut with Cetherise Nermet, The Bride, ad Houle dror, to their bent, Mews? Townwmo a thes Moule dyor, at

## 

Open elew, irmepperive of number of planti, for eichbew distiact, miaple krimen, menes rery ewodient ownoln were put up. Mr. O. G. Omrme. Collh ster, wionien with rred flowere of Cleopatre, Madawe H. Jsmav, Iren ewer Krumor. Madame Cusin, Marchat Niel. Sourenit d'sn Ams, and Madawe de
 Metuan eproghtoa terbery, Ipwich, was but little behind.







In a class of six sing'e, for growers of leas than 500 plants, Mr. G. MovLes, Hitchin, was a capital list; Mr. B. F. Hobes, Worcester, 2nd.
An extra class of six trebles, open to all amatears, was won oy the Rev. A. Foster Melliar. Ippwich; Mr. Conway Joses. Hucleton, was 2nd. Six truses of any Tea or
Noisette, Souvenir d'Elise Vardou woa here for the Rev. Noisette, Souvenir d'Elise Vardou woa here for the Revo
Foster-Meluin ; while 2nd was taken by Edith Gifford, for Foster-Mellilir; while
the Rev. F. R. Buryside.

## Open Classes.

For twelve varieties, three of each, some of the grandest Teas we haviseen were put up. Mr. B. R. CANT, Collehester, being het, with La Boole a'Or, Mada me Cusin, Innocente Pirols, Madame de Watteville, Edith Giftord, and Ernest Metz in particularly good form.
Twelve truses of any Tea or Noisette brought a dozen of Marie Van Houtte in its prettiest form, Messrs. D. Phor \& Sow, colchester, taking lst.

## Gardee roses.

These were not quite so extensively thown as usual. In a clase for nureerymen, of thirty-six bunches, distinct, with not fewer than three, nor more than six trusses to a bunch, Mr. C. TURNEB, Slough, was lst, with very pretty trusess of rugocess Crimson Rambler, Persisn Yellow, Moesee, macrantha, Polyantha, Hébés Lip, and Moschata alba a mong many othera. The amateur's classes of these wera good. For eighteen
bunchea, Mr. A. TaTE, Leatherhead, was ist; Marquis of bunches, Mr. A. TaTE, Leatherhead, was Lst; Marquis of
Salisbury, Hebe's Lip, Crested Moss, Gloire de Resmanee, Salisbury, Hebe's Lip, Crested Moss, Gloir
Rosa Mundi, and macrantha were his best.
For six bunches, not open to the exhibitors in the preceding clasees, the Bev. J. H. Pembertox was a capital lot, having as pecaliarly semi-double form of Polyantha, the old Red Provins or Provenoe, multifora simplex, Rose Mundi, acc. Mr. J. OUGG, Hereford, was 2nd.

## Open Classes.

A display of Roses, not to exceed 6 feet by 3 feet, in which any Rose may be shown and arranged to individual taste, was very pretty, but not so striking as several lots we have seen. Mr. H. Whitehend, Heathville Nursery, Gloucester. was lst, with an arrangement of Rose forming the letters N. R. S., ihe society's ivitials. Edith Gifford, Marie Van Houtte, and Lamarque, formed these letter in lire order, while the whole was surrounded with various other Roses, but too formally arranged. We hope this silly practice will not find favour. A good box of Turner's Crimson Ramblep was ineluded hore.
A good box of Turner's Crimson Rambler was included hore.
Three trusees of any new seedling or distinct sport did not provide s startling novelty, Pride of the Valley whe the only one shown, no award being made. It looked far too mach like a pale indifferent Mrw, Jno. Laing.

## Local Classes.

These were good, but the excellent quality and enormons number from other districts, not to mention the fact that the strongest growers also went into higher clases, considerably strongest growers also went
detracted from their beauty.
Mr. Conwax Jonis, Hucclecote, won the Silver Cup for eighteen distinct single truses; and Mr. T. A. Washeounx, Huccleton, was placed 2ad.
Mr. J. F. Fulford won the gilver Medal for twelve narieties: Mr. Gakbikr Pabry was 2nd.
A Challenge Plate, presented by the Rev. F. R. Buanside, for twelve Teas or Noisettes, went to Mr. T. A. Whshbourn: Mr. R. C. Hoptow being 2nd.
Mr. Conway Jones also won the Silver Medal for six Teas of Noisettes, Mr. T. ThorPE, Hilldrop, near Oloucester, tahing a similar honour for twelve trusaes; while the lat for ix singles was won by Mr. G. Phatt, 39, Park End Road.
The Corporation of Gloucester presented a silver salver for twelve distinct singles, which was won by Mr. Cowwar Jones; the 2nd went to Mr. C. Brown, Saint's Bridge House.
A ailver medal for twelve singlen, grown by cottagers, wa presented by T. THoRPR, EMT., and won by Mr, E. C. Hopros, Hucelecote. Eor nix singlew, Mr. J. MrDDrcotr, Malson: Mr. F. Bincerer, Hucclecote; and Mr. A. Micazli, Coney Hill, woa in like order.
A broaze medal and money was woa by Mr. E. Pooks, Upton, 8t. Leonarde.
Among the cottagers, Mr. F. W. Bolvow had the bent angle
truw in Mrs. Joo. Laing.

## SLlVEB-MDAL ROSES.

The Bilver Modal for the best hybrid perpetual in the nurserymen clasees, whe warded to Mescrs. HinK FEss \& Sows, for Comteme de Ladre; that for Teas or Fioisettee going to Mr. F. Caxt, for Ethel Brownlow.

In the amateurg' clasees, Horace Veroet won, for the Rev J. H. Pembertor; and La Boule d'Or for the Rev. FosterMELKAR。
A mood lot of hybrid Sweet Briars eame frome Mesars. Kerwes, WruinMe ac Co., Salisbury, who etaged all the older hiad except Meg Merrilies. They now had wome that aro nat yet in cousmerce, the bot of which is undoubtedly Jeanmie Deuns, a bright and sexi-double variety.

## DEVON AND EXETER HORTICULTURAL.

Juse 28.-The 1814t exhibition of this Society was held on the above date, the day being wet and nofavourable. The summer exhibition is anaally held in Arguat, and it is fifteen years since the latt
thinga, many of the well-known exhibitors having entered, bat only a amall number pat in an appearsnce. This not only caned grest disappoincment, bat also mach inconvenience. Tae quality was generally fine, Tea Roses being excellent.
In the nurserymen's class, for forty-eight distinct, Mesars Curtis, SANFORD \& Co., Torquay, were 1st; and Messrs. D. Prior \& SoN, Colchester, a good 2nd. In the winning exhibit were Ernest Metz, Jean Ducher, Victor Hugo, Maman Cochet, Captain Christy, Xavier Olibo, Madame Cusin, Star of Waltham, Black Princ e, Alfred Colomb, Marie Baumann, and
Suzanne-M. Rodocanachi, the blooms being distinguished for Suzanne-M. Rodocana fine form and colour.
In the tweaty-four distinct, Mr. Joen Mattock, New Headington, Offord, was 1st; Mesers Robert Veitci \& Son, Exeter, 2ad; and Messrs. Jarman \& Co., Chard, 3rd. In the
twenty-four distinct (three trusses of each), M trsers. D. Prior \& Son were 1st; Messir. Curtis, Sanmord \& Co., 2nd. In the winning collection were Souvenir de S. A. Prince, Her Majesty, A. K. Williams, Marie van Houtte, Horace Vernet, and Madame Gabrielle Luizet. In the 2nd lot were Margaret Dickson, The Bride, Jean Ducher, and Innocente Pirola, all very good indeod.
For the eighteen Teas or Noisettes, Messrs. D. Prior \& Son were 1st; Measrs. Curtis, Sanford \& Co., 2nd; and Mr. Join Mattock, 3rd. Messrs. Paior \& Son had gojd examples of Comtesse de Nadaillac, Madame Hoste. Hon. Edith Gifford, Caroline Kuater, Souvenir d'Elise Vardon, Cleopatra, and Marie Van Houtta. Messrs. Curtis, Sanford \& Co. showed a very fine bloom of Souvenir d'un Ami.

In the open classer, Messrs. Prior * Sor were sgain 1st for twenty-four Teas or Noisettes, Mr. J. MatTock 2ad, and A. Hill Gray. Esq., of Bath, 3rd. The prize exhibit had excellent blooms of Madame Lambird, Madame Bravy. The Bridesmaid. Inoocente Pirola, Catherine Mermet, and Marie Van Houtte. The latter was superb in this and several other classes.
For twelve blooms of any light H.-P.'s, Mesirs. Prior a Son were 1st with Her Majesty, as nearly perfection as it is passible to show them. Mr. Walter Drew, Ledbury, came 2nd with the eame variety, a magnificent lot.
For twelve blooms of any dark $\mathbf{H} .-\mathrm{H} . \mathrm{B}$, Mesars. Curtis, Sanford a Co. were well lat with a grand boz of Marie Baumann. R. N. G. BAKER, Esq., of Heavitree, Exeter, 2nd, with a very fine lot of Ulrich Brunner.
A. Hill Gray was let for twelve Maréchal Niel of magnificent colour; and Prior \& Sor took?promier place for twelve of any other Tea or Noisette, with a good box of Caroline Kuster. For sir buaches of garden Roses Mesors. Prior \& Sor were let, and James Jerman, Esq., The Bungalow, Exeter, 2nd.

In the amateur clases, Mr. WALTER DREW took premier honours with thirty-sis fine blooms, among which were Dingée Conard, Marchiones of Londonderry, Marie Finger, C. Teatout, Ulrich Brunner, Caroline Kuster, Thomas Mills, Her Majeaty, and Etoile de Lyon. In this collection, the bloom of Marchionees of Londonderry was awarded the Medal for the best H.P. in the show. R. N. G. BAKER was a good 2nd.

For the twenty-four blooms, B. E. West, Esq.o of Reigate, was let, with a fiae lot ; and A. Hill Gra Y, 3ad.
For twelve sorts, three truses of each, Mr. WALTER DREW Fas lut.
For twelve Teas or Noisetten, A. Hicl Gray had in his winning lot Reine du Portugal. Souvenir de S. A. Prince, Ernest Metz, and Souv. d'Klise Vardon.
Mr. B. N. G. Baker took premier place for six of any one sort of Tea or Noisette, with is fine atand of Princess of Wales. The class for twelve Teas or Noisettes, distinct, three trusses of each. was won by Mr. A. Hill Gray, with a fine lot.
Mr. N. G. BakHR tool honours for the best Tea or Noisette in the mhow, wilh Comteme de Nadaillac.

## Miscellangous Plants and Flowers

In hurdy herbactous flowers, some excellent bunches were shown, particularly fine being a bunch of Thalictrum squilegifoliun. Pelargonium in truees were good, but Pansies very poor, and the lat prize was withheld. Tuchsias and Pelargoniums in pots were fair, eapecielly the latter.
The groups were not at all up to the usual form at the Rzeter Augrat shows, they sadly wanted colour and rariety. The lst prize group, W. Brock, Req. Parkar's Well, Exete (gro. Mr. W, Rowland), was an ensy lat. The twelve Gloziniae, lat prize tor which was awarded to Mri. A. D. SIM, Knowle, Exeter (Kr., Mr. A. Williams), ware vers good indeed.

## Fsula.

Fruit was indifferently shown in most classes, Grapes were fair, Melons uneven, but 8trawberrie were splendid. For Black Grapes other than Hamburghs, Trentham Black was the winning sart, and in White Grapes, Backland 8weetwater. The let in Gooseberries was Golden Drop, but tho competition in these clases wae not reen. The clas for four competitian in these clames wal not keen. The claw for four
divhe of Strawberries was woa by H. Hammond sprscers, Req., Teignmouth (gr., Mr. Eoster), with Senaation, Watirioo, Commander, and Jumos Veitca, all Eret-rate. The two dishes were won with Sir Joeeph Paxton and Preaident, and the one diah clase by Mien Dax. Kenton, with a grand exhibit of Sir Joseph Puxton. Mra. A. D. 81w mhowed a fine dish of Baby Catic Curranta.

## Vegetableg.

In vegotablew, prexier place wae ggain taken by Sir Jour SEELLEY, Barto, High Sheriff of Devon (ge., Mr. B. Mavit). with grad colleation of eight rarieties, comaisting of Veitch's Model Carrst, Dule of Yorl Potato, Gradum Pea,

Veitch's Midsummer Day Caulifower, Veitch's Red Garden Globe Turnip, Perfection Tomato, Veitch's Exhibition Broad Globe Turnip, Perfection Tomat and Canadian Wonder Dwarf Keans. The 2nd prize Beans, and Canadian Wonder Dwarf Heans. The 2nd prize
collection was alco good. Veitch's Perfection, Voitch's Gem, collection was al:o good. Veitch's Perfection, Voitch's Gem,
and Blendworth Perfection Cucumbers were well shown. and Blendworth Perfection Cucumbers were well shown, Garden Globe 'Turnip, Early Puritan Potato, and Mein's No. 1 Cabbage, were prominent among the winning dithes.

## Trade Exaibits.

In the Nurserymen's exhibits were some very good things. By far the largest exhibit was that of Messrs. Robert Veirch \& Sor, who, in addition to a good general collection, showed \& Soy, who, in addition to a good general collection, showed
some new hybrid Water Lilies, a grand box of Carnations, and a rich collection of alpine and roct plants.
Meesrs. Randill \& Son had a good miscellaneous collection, as also had Mr. W. B. Smale, Torquay, this exhibitor showing good Petunias and Double Shirley Poppies, with three Chrysanthemums. Charles Davis flowering out of season. Mr. W.J. Godfrey, Exmouth, had good Carnations, amongst them being Goldmine, Sunrise, and Primroee League. Four new and well-coloured Coleuses were also in this stand, and a good and well-coloured Coleuses were also in this stand, and a good assortment of cut flowers. Mr. J. Walker. Mount Radiord;
Messrs. Jarman \& Co, Chard; Messrs. Beachr \& Co., King's Kerswell, als, exhibited: as did the Jadoo Company, who had a large stand of well-grown specimens, grown in Jadoo from the conservatories of Colonel Halford Thompson.

## WINDSOR, ETON, AND DISTRICT ROSE AND HORTICULTURAL.

Jons 29.-The annual exhibition of this acciety was held on Satarday last in the private grounde of Windsor Castle. Roses were by far the strongest classes, and in the most important of these the quality of the bloocos was excellent. There was not much competition in the plant clanses, and the three tenta that bad been provided were not more than farnished. We would aggent to the committee that on another occasion the names of the exhibitors should be more plainly written. Conaiderable trouble and error might thus be asved the apectators, while it would also be convenient if the addresses of exhibitors were incladed on the cards.

## Roses.

We have alreadysaid that the quality of the Roses was good, and this was particularly the case in the three first open claeses. Mr. Bend. R. CaNT, Colchester, was lst for thirtysix distinct singlo trasees, and the most notionble is hil stand were Ulrich Brunner, Gustave Pigmaneau, Madame $Q$. Luizet, Marchioness of Downshire, White Lady. Lady Mary Fitzwilliam, March oaes of Dufferin, end A. K. Williams. Meast. Harermes \& Bons, Bodale, Yorks, wurt 2nd. Their blooms were smaller, but they were of capital colour and nice in form; Mesars. Priors \& Sons, Calchester, were 3rd in this clens, but won in that for eighteen Tese or Noisettes, in this cimes, but won in that for eighteen Tees or Noisettos, Which included ver
Sonvenir d'un Ami.
The third open clas-three trusees each of twelve distinct varieties-fell to an amateur, and to win he bad to beat splendid blooms from the trade. The Rev. J. H. PFMbeator. Havering-atte-Bower, Aomford. Reoex, had large full blooms, and of excellent colonr; Mesarn. Habknkss of Sons were 2nd, and Mr, B. R. Cant 3rd. The National Society' Silver Medal for best Rose in the show was awarded to a capitel bloom of Marchioness of Dufferin, exhibited by Mr. Framk Cawt.

Amateurs. -The Rev. J. H. Pemberton was lat for eightees distinct Roses, and a splendid bloom of Mario Baumann grinen the National Society's Silver Medal for best Rose exhibited by an mateur. Others in the stand wore aloo very good. The Rev. J. H. PRMbrator, won, for sim single trusees of one hiad, with Caroline Teatout; and H. V. Mackin, Req., Worksop, for twelve Tees or Noisette, in not fower than eight Warieties; R. E. W EST. Rer., Reigate, was 2nd. The quality varieties; R. E. WRST. Req., Rei
in this clase was not remarkable.
Local Closses. There were six clames opon only to exhibi tors within ten miles of Windsor, and the 1st of these-loe eighteon singlo trusees-was won byN. L. CoHEN, Rerf, Roglo field Green (gr., Mr. A. Sturt); sleo the claws for twelve single trusses. In the lat clsen, A. Grluskat. Req.. 8lough, was 2nd and Mise Bailey Destor, Wingfield, took a similar ponitios in the other. Six single truses were best from Mr. Jokw gon, Manor College Gardens; and Sir Robert Harvlip, Bta was lat for sir single trusses of any H. P. or H. Tes. N. I. CoHEx, Eeq., with Innoconte Piroln, was lot for the same aumber of any Tea or Noisette; and the Dowager Duchen of Sutherland for six Teas or Noisettes in dintinct varietice. Mrs F. Hemeage and Mrs. Inviva wore lot reapectively for basket of Roses, and for six bunches of garden Roees, diotinet open to loonl ladiee oniy.

## OpIEN TO MtMrgens ontr.

Pot Plants, The winner of the 1st prise for an effective group of miscellaneona planto, arranged in a circle 12 fet bl 6 feet, waw gir Robstr Babver, Bart. (gr., Mr. Gillies), whose group, composed wholly of dot plants with a groued work of ferns and Gloxinias, contained soane rether tocommon work of ferns and Gloxinias, contained soase recher tocoman D. Phillips), who had also a tanteful exhibit.

Sir R. Hapver (gr., Mr. A. Gillies), way let for siz specimidy plante and for six plants for table decoration, having fairly sood plante in each esce. The Hon. C. 8. Inst, with cour opecimen Tuchsias, and Mrs. J. Huweacte (aro. Mr. Guttridge) with six zonal Ifelargoinme, we fist in thoee clanort.
F. Riosrdo, Eeq., had lst for sir tuberoun Begonias, and the Hon. O. S. Irby had the best Ferns.
Pruet was of fair quality generally. L. Baker, Req., was 1st for two bunches of black Grapes, with ripe Alicantee; and N. L. Cohen, Esq, with unripe bunches of what we judged to The best Peaches came from Mij Crapes
The beat Peaches came from Major Legge, Fulmer (gr, Mr. J. G. Mowbray), who had Royal George of fine quality
and L. Baker, Req., the best Nectarines. Major LeGGz had also kood Nectarines, showing delicately-coloured Pitmaston Orange. Mrs. Irving (gr., Mr. Elisha), had the best Straw berries, showing Laxton's Latest of All, and Frogmore Late Pine. There were seven entries of Melons for prizes offered by Mesars. Sutton \& Sons, Reading; and Mrs. Burton (gr. Mr. W. WICks), was 1st, with Hero of Lockinge.
Vegetables.-The Hon. C. S. Irby, Taplow, was lst for a collection of Vegetables in six varieties, quality only fair. His Peas, Duchess, were not full. There were also classes for Tomatos, Cucumbers, and a Cottager's class for a collection of our varieties of Vegetables.
For Mesars. J_s. Carter \& Co 's prizes for produce from their seeds, Mr. G. P. Quelch, gr., House of Mercy, Clewor, was
1st; and the Hon. C. S. IRBY was lst with a collection of four inds grown from seeds supplied by Mr, W. H. TITT, Thames Street, Windsor.

## Misoellaneous.

Her Majesty the QuEEN, from the Royal Gardens, Windsor (gr. Mr. O. Thomas), exhibited an excellent group of miscellaneous plants, both foliage and flowering specimens. The plants in his group were well grown, and included large Palms, Crotons, Liliums, Hydrangeas, Spirsea palmata, a capital plant of Calathea (Maranta) zebrina, Gladiolus, Crasoulas, a nice plant of Alocasia Thibantiana, Humea elegans, and other ecorative species.
The trade was well represented at this exhibition. Mesers Wo. Laing a sows, Forest Hill, London, 8 E., were the
exhibitors of a pretty group of miscellaneous plants. There exhibitors of a pretty group of miscellaneous plants. There were choice plants of Caladiums, Crotons, Begonias, \&c.
Messrs. John Peed \& Sons had a group of miscellaneous plants, composed of Caladiums, Dracenas, Glozinias, \&c., containing some nice plants, but the group was too heavily arranged. A collection of hardy herbaceons flowers, and a few Roses, exhibited on two tables, were also from Messrs. Peed.
Mr. Chas. Turner, Royal Nurseries, Slough, had three groups, one large low group upon the grass, consisting of Car nations in pots, and in front a couple of dozen baskets, furished with Rose blooms in sprays, each containing one variety only, and surrounded with Fern. The quality of this exhibit eserves remark
4 amall central group ecoircling one of the tent poles was composed of Lilies and Palms, and Roses in baskets and Pelargoniums were well exhibited in another group.
Hardy herbaceous perennial flowers were capitally ahown by Measrs. Jas. Veitcri \& Sons, Boyal Ezotic Nursery, King's Road, Chelsen. They included a fine lot of Delphiniums in variety, and a representative collection of other species now in flower, beside a collection of Rose blooms.
Meesrs. Wm. CuTbusi \& Sor, nurserymen, Highgate, London, N., exhibited a nice group of Carnations in pots, omposed principally of Souvenir de la Malmaison varieties.
Mr. THos. S. Ware, Hale Farm Nurseries, near Tottenham, had a large double-faced group of Begonias arranged on a contral table, including single and double varieties. Mr. B. LADHAMS, Southampton, had an excollent lot of hardy flowers; and Mesars. Geo. JiCEmin \& Sors, Woking, the same kind of plants in fewer varieties. Mr. H. ECEFORD, Wem, Salop, had one of his elegant exhibits of Sweet Peas, including another batch of new varieties, all pretty, and exhibiting endless variety in colour and considerable variation in form.
Mr. GEO. PHIPPER, Reading, had an attrective stand of florista' productions, \&c.; add Mr. W. H. Fitt, Thames Et., Windior, had a smaller exhibit of a similar character.

## CROYDON HORTICOLTURAL.

Joly 3.-The twenty-eighth nummer exhibition was held on Wednesday last in the grounds of Brickwood Honse, the residence of J. W. Prince, Esq. As unal, the ahow was very comprehensive. Classea for Rosen and plante were numerout and well sustained, non-competitive exhibit forming a maller proportion of the ahow that is becoming common at many place.
Roses were not quite no numerous as last year, and al though the quality was good in lst prize stands, many of the blooms had been damaked by recent rains. The leading class for nurserymen only, fell to Mr. B. R. CANT, Colchester, whose forty-eight distinct blooms were good, but not exceptional. Her Majeaty, Madame Casin, Maréchal Niel, Marchionese of Downshire, Thomas Mills, Gustave Pigannean, Madame Bois, and Baroness Rothschild were among the best blooms in this atand. Mr. Frank Cant, Braiswick Nursery, Colchester, with a younger, brighter, though amaller lot, a very close 2nd. We noticed very pretty blooms of Ethel Brownlow, Marie Baumann, and Madame Gebrielle Luizet The class for twenty-four Roses, distinct, three trussee of ench was also won by Mr. B. R. OANT
Memars. G. and W. H. Burcre, Peterborough, had an excelont lot of Roses in the class for twenty-four blooms dietinct, such as Charles Lefebvre, Duke of Fife, Mrs. Jno. Laing, Earl Dufferin, Marie Baumann, Jeannie Dickson, and Ulrich Brunper, having great substance. Meers. Towssexd es Sows Lower Brond Heath, Worcentar, were and.
Mr. Pruwe Oaxt was eaeily lat for eighteas Teas or Noisettes, including in his collection pretty blooms of Eithel

Brownlow, Catherine Mermet, Corinna, and Madame Cusin. Mr. B. R. CANT was 2nd.
The best dozen of one variety was from Mr. F. CANT, being fair blooms only of Her Majesty; Mr. B. R. Cant. with Gustave Piganneau was 2nd. The best dozen blooms of a Tea were Madame de Watteville, from Mr. Frank Cant

Amateurs' and Gardeners' Classes.-The leading open class, nurserymen excluded, was won by the Rev. J. H. Pemberton, Havering-atto-Bower, Easex, who had thirty-six excellent looms ; and A. Tate, Eeq., Downside, was 2nd.
A. Tate, Esq., was lst for eighteen Tea or Noisettee, but the uality in this class was not remarkab?e
The Rev. J. H. Pemberton won for six Roees, in three trusses of each; and A. TATE, Esq, was 2nd.
The best twelve blooms of one variety were from H. V. Machin, Rsq., Gateford Hill, Worksop, who showed La France: T. B. Haywood, Esq., Woodhatch Lodge, Reigate (gro, Mr. C. J. Salter), was 2nd, with Alfred Colomb. Three lasses were reserved for growers of fewer than 2000 Rose plants, and the first of these was won by Jıs. Barker, Esq. akfield, Hitchin, who had twelve distinct blooms of commendable quality. A bloom of Fisher Holmes in this stand was awarded the National Rose Society's Medal. The same exhibitor had the best twelve Teas, and the best four Roses, three trusses of each. R H. Langton, Esq, Raymead, Hendon, was lat for nine Roses distinct among growers of fewer than 1000 plants, and also for nine Teas or Noisettes.
Groups.-The winner of the class for the best group of plants, arranged for effect, was Mr. C. Lane, gr. to E. H. Coles, Esq., Brentwood, Caterham. He had a prettilyarranged group, bright with many flowering plants, and some well-coloured Crotons. Mr. E. Mills, gr. to Frank Liord, Esq., Coombe House, Croydon, was 2nd. There were six Esq.
In a district amateurs' class for a smaller group. the winner was Mr. J. Galvin, gr, to Mrs. Daties, Purley; while a 2nd prize only was awarded to Mr. G. Rales, gr. to J. Claisher, Esq., Heathfield Road, Croydon, an exhibitor in an open class for amateurs and single-handed gardeners.
Plants. - Jno. Warren, Esq, Handcross Park, Crawley (gr., Mr. Offer), was the exhibitor in a class for nine stove and greenhouse plants, the quality of which was commendable; Boronia elatior, Ixora Fraseri, and Darwinia fuchoioides were his best plants. Johiv Warren, Req., was also let for a specimen plant with oruamontal foliage, showing a capital croton, Queen Victoria. Philip Crownex, Esq. Waddon Croton, Queen Victoria. PHilip Crowlesx, Req.o Waddon
House, Croydon (gr., Mr. J. Harris), had the best flowering House, Croydon (gr., Mr. J. Harris), had the best flowe
specimen, in a good plant of Clerodeadron Balfourianum.
For six ornamental foliage plants (greenhouse), Mr. M. E. Mills, gr. to Franis Lloyd, Esq., Coombe Honse, Croydon, was 18t. He had a good plant of Pritchardia pacifica, Anthurium orystallinum, A. Warocquennum, \&e. Mr. H. G. Filbey, gr. to Mrs. F. Berns, was 2 nd.
The 1st prize for six exotic Ferns was taken by Mr. Horne, gr. to H. TıTE, Heq., Streatham Common, who had capital specimens of Adiantum cuneatum, A. cardiochloena, Microlepia hirta cristata, Marattia fraxinea, and Nephrolepis ensifolia.
Nine ornamental foliage plants were very good from J. Warrew, Eeq., his Croton Williamsii, C. Warreni, Cycas revoluta, and Kentia Belmoreana being very worthy of remark. Philip Crowley, Rsq., was 2nd. Begooias in a
collection of nine were best from Mr. J. Slater, gr. to Mrs collection of nine were best from Mr. J. Slater, gr. to Mrs.
Hulse, Shepley House, Carehalton ; and Mr. J. Knapp, gr, to F.W. Amsden, Esq., Chichester Road, Croydon, was 1st for six plants. Pelargoniums in six plants were won by Mr. E. Perrett, gr. to Mrs. Fuller, Duppas Hill; and Frank Lloyd, Eleq., was lst for six plants of Caladiums.
Selaginellas from Philip Crowley, Ksq., were excellent, particulariy 8. apoda and S. Poulteri. Tae same exhibitor was lat for nine distinct Ferns in 6 -inch pots. Fucheias and Pelargoniums were shown in other clasees, and were of average quality
An uncommon class was that arranged for a collection of succulents. There was only one exhibitor, Mr. C. A. BLoe日, Brighton Road, Oroydon, but his plants were worth notico. Mr. F Bas not shown exteneively, but the quality was good解 tolerably well-coloured bunches of Black Hamburgh ; and $\mathrm{Mr}^{\text {r }}$ E. M. Bethune, Denne Park, Horsham, won in the class for White Grapes, with three bunches of Foster's Seedling. For a collection of fruit in six dishes, a good lot was staged by Mr. J. Munro, gr. to James L. Bricenell, Eeq., Langley Court Beckenham. His black Hamoburgh Grapes, Peaches, and Straw-
berries were remarkable. Mr, E. Mills, gr. to Frank Lloyd, Esq., with Prince Alice, had lat prize for a dish of Straw berries.
Vegetables were of good quality, and table decorations ware attractive and tasteful.
Miscellaneous,-Messis. Jwo, Lanve \& Sows, Forest Hill, London, S.E., had a central and two side groupa at the entrance to the large plant teat. The two smaller groups were com posed of a collection of choice Caladiums, and the ceutre one was made up of double and single-flowered Begrnias of ex ceptional merit. We noted Duchess of Fife as one of the prettiest and most attractive single-flowered varieties we have neen. Mesars. Laine had also cut Roses, cle.
Mr. Jwo. R. Box, nurseryman, West Wickham and Croydon, staged a group of single-flowaring tuberous Begonias, remark able for their bright colours and good form. A group of herbaceous plants and flowers were also shown by this exhibitor.
Meears. J. Chical \& Sons, Crawley, Sussex, exhibited a nice lot of hardy flowers, including some fine Gaillardias, Violas, \&o. Mr. T. W. EDMUNDS, nurseryman, Wecterham, Kent, had hardy 10 swers and Rosee.
Mosers. Curbusir \& Son, Highgste Museries, London, K.,

Mr. E. Chaff, nurseryman, Croydon, exhibited floral arrangements.
Mesers. Jmo. Peed \& Sons, Roupell Park Nurseries, Norwood Road, London, had a tasteful group composed of Crotons, Lilies, Caladiums, Forns, \&c.

## LEE, BLACKEEATH, AND LEWISHAM HORTICULTURAL.

Jour 3-The annual exhibition by this society was held on Tuesday laet in the groande of "The Cedars," Lee. Several tents were well filled, and the diaplay in each was good, Rosen, decorative and flowering planta, cut flowers, fraits, and regetables, were all well reprenented.

## Roses.

The largest class for these is equal in its requirements to that of the National Society at the Crystal Palace. The beat serenty-two blooms were undoubtedly those from Mesars. Harkness \& Sows. Bedale, Yorkshire, and this firm was awarded 1st prize; Messrs. D. Prior \& Sow, Colchester coming 2nd. Later in the day, however, the exhibit from Messre. Harkiress was disqualified, as "not according to schedule," and Messrs. D. Prior \& Eon were placed lst, followed by Mesars. G. \& W. H. Burci, Peterborough. In Messrs. Hark NESs' stand we noticed very fine examples of Her Majeaty Madame V. Verdier, Augusta Rigotand, Captain Haywand Horace Vernet, Mrs. John Laing, Marie Bavmann, and Gustave Pigannean.
In the class for lorty-eight blooms, Messra. Harkness were lst, and Mesars. Prior \& Now 2nd; but positions were reversed in the class for twenty-four blooms, and Mesars. Prio were lst and Mesers. Hareness 2nd. There were a few other minor clasees.

Plamts, \&c.
Mr. F. Foz, gro to Mrs. PEWN, The Cedars, Lee, with six nice Palms, took 1st in this class; and was similarly succoseful with twelve very commendable stove and groenMonee plants. Mr. C. Birch, gr. to R. WhXTE, Keq., Old Road, Lee, who was and in the latter class, included a well flowered specimen of Aristolochia elegans. Mr. Birch wa lst also for gix exotic Ferns, including excollent plants of Davallia fijiensis, and Adiantum scutum roseum; 2nd, Mr C. Nunn. gr. to W. Soames, Ksq., Maize Hill Honse, Greenwich. With a very fine Ixora Pilgrimi, Mp. Birch was lst for a specimen plant in flower: and Mr. Nunn 2ad, with Clerodendron Balfourianum. Mr. Birch was again succossful in the class for sir stove or greanhouse plants, and included capital specimens of Ixora Prince of Orange, Plumbago capensis, and P. C. alba.
Six foliage plants were beet from Mr. J. Lambert. gr. to H. W. Segelcke, Eeq., Herne Hill, who had very commandable specimens. Mr. Lambert was lst for an effective group, and Mr. C. Nunn 2nd, neither exhibits calling for remark.
F. Fonias were fairly good, and lat prizes wetaken by Mr F. Fox, Mr. H. Horton, gr. to Major-General Ashbirnmer, St. John's Park, Blackheath; and Mr. F. Johnson, gr. to S. Brailsford, Eeq., Tudor House, Blackheath Park. Calediums were also of good quality. Mr. Nunn was let for six plants, and Mr. W. Payne, gr. to C. D. ABEL, Esq., Eastcombe Villas, Blactheath, 2nd. Dracænas were well grown as exhibited by Mr. J. Lambert in the class for six plants, and Mr. T. Alley, gr. to R. Kelsex. Esq., Hurst Lodge, Lee, was commendable in a claes for four plants.
Mr. F. Fox took ist honours for a group of plants arranged upon a table; and Mr. C. Nunn iwas Ind. The contrast between the two exhibits was great, Mr. Fox haviag made hie group exceptionally bright by a free use of flowering and variegated plants, while the one from Mr. Nunn was uncom monly dull.
A clam which is almost peouliar to this exhibition, is arranged for twenty-four miscellaneous atove and greenhouse plante. The specimens exhibited are always moderate in size, generally of good quality, but calling for no special remark. Mr. C. Birce was 1st in this class on Tuesday last, and Mr. F. Fox, 2nd.
There were minor clatses for Orchids, Gloxinias, Fuchqias, Pelargoniums, \&c., and for various cut flowers.
Two clasees for spraye of Violas were essily won by 1.J. Rowberry, Eeq., The Crescent, South Woodford, his exhibits in the classes for twelve sprays and for six pprays being superb.

## Frut and Veertables.

This was present in moderate quantity only, Mr. J. YuIFord, Bickley Hall Clardens, was lst for a callection, and included in this a ragaificent dish of British Queen Stramberries. Mr. C. Birce was 2nd. Me. Fulford was also lst for one bunch of black Grapes, showing Gros Maroc, but the clase for three bunches was won by Mr. E. Goadard, gr. to T. M. Whitraker, Eaq., Eltham Road, Lee, with good Black Hamburgh, and the same exhibitor showing Backland Sweetwater, won in the class for three bunches of white Grapes.
Vegetab'es were very excellent in quality. The principal prize winners were Mr. Fulford, Mr. Fox and Mr, Mas Wemeter.

## Mtscenilaneouts.

Mr. H. J. Jowes, Byecroft Noreery, Lawihham, ahowed an excellent group of Begonias tastefully reheved by a roe use of the light varieties of Ferns. Meears. PEED Some, Roupell Park Nurserios. Upper Norwood, had a roup of Caladiums and other ahoice planta. Measrs. H. CAxKELI \& Sonss, Iwanley, Kent, exhibited a group of Begonias and some ipriye of Canos Quow Chariotio. The Agriculteurl
grown from seeds supplied by them; and Mr. Howlind, Vine Nurseries, Lee, exhibited groups of miscellaneous plants

Cottagers' Exhibits.-The produce from cottagers, arranged in ons of the tents, was very satisfactory.

## KEW NOTES.

Philadelphos Libmoinei $\times$,-Of the Mock Orangen now in bloom, there is not one possessing more attractive qualities than this. It is a hybrid, having been raised by Mons. Lemoine of Nancy, by crossing P. coronarias with P. microphyllus. In leaf characters, stature, and size of flower, it is intermediate between ite parente, bat besides being quite diatinct, it is superior as a garden plant to either of ita parente. Whilst it is larger and more showy than P. microphgllus, it has parer white flowers than P. coronarins, and their delicate, almost pine-apple like fragrance is much to be preferred to the heavy perfame of that apecies. A circular bed aboat 14 feet across in the Arboretum at Kew filled with this plant is now in perfect condition, and makes one of the most charming massea of flower to be seen in the garden. The shoots made last year are 2 to $2 \frac{1}{2}$ feet high, each one an erect columnar masa of pure white, fragrant blossom. Mons. Lemoine sent out this hybrid some seven or eight years ago, bat ite exquisite beanty is far from being as generally snown as it deserves to be.

## Rosa multiflora (syn. R. polyantea).

For the past few week thit Asiatic Rose has been the most effective of all the apecies in flower. The blostoms individaslly are mall (acarcely 1 inch acrons), but they are produced in such profusion that their want of aize is no defect, but adde rather to the distinctive character of the specien. A large mass of it is grown in the kose collection at Kew, and it occurs in various other parte of the grounds. Most atrikingly, perhaps, is ita beauty seen in the Bamboo garden, where it in planted on a bank and allowed to clamber over old tree-roote, forming huge mound of white flowers. Its amall flowera, whone fragrance may be detected many yards away, ite cone-nhaped, numerously-flowered truseses, and the fimbriated atipules at the base of the leaf, render the species an eavily recognised one. The long, arching ahoots grow to a length of 8 or 10 feet in one season. It is a native of China, Japan, and Corea, but although the double-flowered variety has been known in England aince the early years of this century, the trae aingle-flowered type was introduced as lately as 1875. A fine specimen in figured in the Gardeners' Chronicle for November 26, 1887, under the name of Roma polyanths.

## Spibea bracteata.

If not one of the verg latest additions to the genue, this is at least one of the mont ancommon of Spirzas in English gardens. It is a very pretty pecies, of compact habit, growing to a height of 2 or 3 teet (perhapa more eventually), with abundant obovate or almost orbicular leaves, which frequently have a few shallow teeth near the apex, and are of a peculiarly rich, lustrous green. The flowers are pare white, and fragrant, and are borne on thort, cone-shaped corymbe. The name bracteata refera to a bract midway on the atalk of the flower ; on the lower ones it is large and leaflike, becoming amaller and amaller towards the terminal flowers of the corgmb. According to Profenaor Sargent, this species is a native of the mountainous regions of the main Island of Japan, and among other places is found on the slopes of Foji-san. It aopears to have beed first introduced to Earope by Von Siebold. A fowering shoot is figured in the Gavdener'' Chronicle for February 28. 1885, as S . media var, rotundifolia alba. It may be increased by means of cuttinge taken as soon as the wood hat become fairly firm. [See alro Hemoley in Gardeners' Chroniele, June 16, 1894, p. 740 . Ed.]

Although a native of Madeira, this beantifal Genista pased through the froste of last February with carcely any injury-a marked contrant to the
behaviour of aeveral other leguminiferous plants, amonget which are natives even of our own country. A good many years ago some acores of plants were put out in the wild semi-wooded part of Kew Gardens nearest Richmond. Although the soil here is the poorest anad, thene plant have aucceeded well, some having grown into large apreading bushes 8 to 10 feet high, and even more across. It is, in fact, the largeat of all the hardy Geniatac. Every July these bushes are crowded with racemes of bright golden yellow flowers, and amidat the arroanding greenery these masses of glowing colour are particularly effective. The leaven are mall, lanceolate, and not divided. It was introduced as long ago as 1777, and was figured by Lindley in his Botanical Register in 1844 , but atill remains quite an ancommon plant. Daring the latt few years it has, however, been planted more extensively. W. J. B.

## COLCHESTER ROSES, 1895.

IT wae with many miagivings that I turned my head towarde Colchenter on the early morning of June 20. I had seen many Roses cut hard by the frost of February, and had many sorry tidings about others. And now the opportanity had come to teat the condition of the Rosea in their great and ever enlarging home in East Anglia. To this end I was to asaitat as jadge at the Colchester Rose, Flower, and Fruit Show. Lanch among the Roses, and with roaarians at Mr. Frank Cant's, and walk through as many Rowe gardens as posible. A glimpse at the Roses in this show was most encouraging.
The Colchester Rose and Horticultural Society was apecially favoured this year by the weather, though a soaking shower passed over the tents about 12 o'clock. It also enjoyed the warm patronage of the ex-Mayor, Henry Goody. Eaq., and of the present Mayor, E. Egerton Green, Erq., the Prenident of the Horticultaral Society, who has been indefatigable in his efforts to make the Rose show one of the chief features of the gear. In this, assisted by the Mayorens, who presented four Medals for the four beat Roses, he has admirably ancceeded, and he crowned the edifice, as it were, of his other gifte by devoting his personal service on the day of the show, and granting the Society the ase of him benatiful grounds at East Hill House, near the Castle.
So far an the trade were concerned, the Colchester growera won and held the field for prizas among them, courteously changing places among themselves, bat resiating the ingress of outaiders. Mr. Benjamin Cant, the veteran grower, and founder of the Rose induatry, was lat for thirty-six, and Mr. Frank Cant and the Mears. Prior \& Sona winning the other chief prizes.
Among amateara there was a wider competition, though a very creditable share of prizes were also won by Colchester growers, such as the present Mayor with the energetic secretary of the aociety, Mr. C. G. Orpen. The winners of the four silver medals presented by the Mayoress were Min Pomberton for a grand bloom of Horace Vernet, Mr, O. G. Orpen for the beat Tea, The Bride, Mr. Frank Cant for a beautiful bloom, La Fraichear an anard rather aeverely criticied. Mr. Wiloon Marriage had the fourth medal for the beat dozen Rones.

Among other fine Roses at Colcheater on the 20th were Maréchal Niel, Madame Canin, Soavenir de S. A. Prince, Catherine Mermet, Jean Dacher, Comtesse de Nadaillac, Belle Lyonnaise, sad Marie Van Hoatte. Among perpetaals, the following, among others, were good for colour, size, form, quality:Horace Vernet, Mra, John Laing, Duchess of Oxford, Dr. Andry, Dapay Jamain, La France, Marie Baumaad, Madame Gabrielle Laizat, General Jacqueminot, Prince Arthar, Joha H.spper, Earl D. 4 ffrin, Senatear Vaise, Dake of Teck, Dake of Ediabargh, A. K. Williams, Charlen Lefebrre, Grandear of Cneshunt, Lady Mary Fitz willism, Marie Rady, \&ce.

And now, after a most auccessfal meeting of ronarians, and a most hoopitable lanch at Brainwick, we are fuce to face with thousands and teas of thousands of Roses, and Briart of all posible sorta
and nizen. Almost the only mart they bear of having passed through a semi-arctic winter is that the majority of the Roses are a week, perhapa two, behind time. Hence, had the show been a fortnight later, Colchester's beat would bave been yet more brilliant and perfect than on Jane 20 .
Without exaggeration, the Colchester Rous were without speck or flaw of any sort. On ex. amining acre after acre, not a sign of mildew nor speck of rast were seen, nor a bud bored, nor a leaf browned, nor barrowed by caterpillars or maggoth, And yet the persistent drought and the ever-preesent north-east winds, are held to be the most potent factor in the prodaction of disease. Neither hat the trade in Colchester the mean nor the will to adopt artificial watering. Bat they fight the drougbt through liberal, deep calture, and a loose surficemalch of frequently-boed soil.
It seems that bat few of the Roses bad had their heads or root protected last winter, and it war marvellous to see sach aurvivals of atandard perpetuals, and dwarf Teas-acre after acre, in wellfilled rows, in robast health and bighest vigour. The Rose grounds in and around Colcheater vary somewhat in character and aupact, and in some portions the atandard Teme were hit very hard, and the dwarfe cut to the ground. Others covered their utandard Tens with Pea-straw, and these were asved; and the enormous brakes of the latter, in robuet health, rashing into bad, were worth a journey of a handred miles to see in these times, when we hear anch depreasing reports of the wholessle slanghter of the innocent Rones in February, and the lingering, enfeebled life of yet larger nambers over since. D. T.F.

## ©bituary.

S. A. WOODB.-We regret to hear, through the Journal of Horticulture, of the death of Mr. Woode of Osberton on the 26 sh alt. from poisoning, It appears that the deceased bas suffered from gout, and from nervoas depression. Oa the morning of his death he was in great trouble about his Grapes, and anked his wifo to go and see them, remarking, "I know I shall go mad." Shortly after this he took a bottle of "Waop Destroyer," which resalted in his death. Mr. Woods, who was fiftyone, has been gardener to the Foljambe family for eighteen jears, and has given great antiofaction.

Alderman Masters.-The death is recorded in the Evesham Standard of this well-known market gardener, at Evesham, st the age of sixty-eight. The deceased gardener was thrice Mayor of hit native borough. A few jears ago he was Secretary to the Fruit Pests Committee, a committee of investigation which made experimente as to the beat methods of destroying frait-pests ; and before the revision of rates, Mr. Masters was one of a depatstion who laid the views of the gardeners before the President of the Board of Trade. In every particular connected with the market gardening induetry the decemaed brought to bear an exceptional degree of intelligence and perseverance. Journal of Borticulture.

Markets.
COVENT GARDRN, July 4.
OUT FLowres.-Averuar Whohiconc Pbiors.

| Arums, per dowen blooms $\qquad$ |  | Pelargoninms, scarlet, per 12 buncheo | d. 2.8 $40-60$ |
| :---: | :---: | :---: | :---: |
| Asters, per bunch... | 26-30 | -12 eprays ... | 06-09 |
| Bouvardias, p. bun. | 06-10 | Orchids :- |  |
| Carnations, 12 blms. | 16-26 | Cattioya, 12 dmes. | $60-120$ |
| Euchana, per dozen | $40-60$ | Odontoglosenm |  |
| Gardenias, per doz. | $30-40$ | crispum, 12 blm . | 30-60 |
| Lapageria, 12 blme. | 10-20 | Pyrethrums, 12 bun. | $20-40$ |
| Lilec (French), per bunch ... | 48 | Rosen, Tea, per doz. | $10-20$ $100-4$ |
| Lilies of the Valley. doz. apraye | 20 | - yellow (Maré- |  |
| Lilium farriai, per dozen | 30 | - red, per dozen | 20 |
| Lilivm Lancifolium, per dozen |  | bunches <br> per dozen |  |
| Maidenhair Tern. por 12 bunches | $60-80$ | Itephanotis, dozen aprays | 6 |
| Marguerites, 12 bma . Mignonetto, 12 bux. | $\begin{aligned} & 10-30 \\ & 20-40 \end{aligned}$ | Tubercees, 12 blizem | - |

Fbutw-Averlae Wholeslle Priogs.
Cherries, Black Figs, White Grapes, per lat qual black, Kngliah, lb - 2nd quality... Muscats Guernsey Melons, each... Pine-spples, st. Mi-

 half-sieve half-sieve trawberries, morn ing gathered, lb - per peotr
 diantum, per doz - apacimen, each. Calcoolaria, por doz. Coleus, per dozon... yperus, per dozen racens, each vergreen shious, doz. in variety, per dozen
Forns, small, doz....
Ferns, various, do Ficus elastica, each Foliage plants, doz.

Vegetables.

> Fuchsias, per doz s. d. s. a. Heliotrope, per doz. Ivdrangeas, p. doz Lobelia, per doz Marguerites, p. doz. Mignonette, p. doz. Palms, various, Pelargoniums, doz Pelargoniums, doz. $40-120$ Schizanthus, per doz. Spirmas, per doz. $\because . .68680-960$


9 0-24 0
ans, Broad, per $s_{0} d_{v} . s . d$
Beans,
sieve
Wholeshare Patome

Beans
Mushrooms, per lb.
Peas, white, p.bash.
Tomatos

| Caulifiowers, p. doz. 2 6-3 | 0 | Tomatos, Home |  |
| :--- | :--- | ---: | ---: |
| Cucumbers. per doz. 2 | $0-3$ | 0 | grown, per doz. lb. |




## New Potatos

French and Channel Islands' arrivals heavy, prices lower. Home-grown now coming in, and selling at $8 s$. to 10 s. per cwt.

Old Potatos.
A few still uncleared. J. B. Thomas.

## SEEDS

Lonnon: July 3.-Messrs. John shaw \& Sons, Seed Merchants, of Great Maze Pond, Borough, London, S.E. write that but few buyers visited to-day's seed market, and Triforequirements were neither large nor numerous. French Trifolium attracts increased attention. For sowing Mustar and Rape seed there is a somewhat improved inquiry. Hari cot Beans being exceedingly scarce, realise full prices Blue Peas are harder in value. Bird-eeeds at this inective period show no fresh feature. Linseed steady. Buckwheat rathe chesper.

## FRUITS AND VEGETABLES

Borovari : July 2.-Quotations:-Peas, 2s. 6d. to 3s. 6d. per bushel; Horseradish, 1s. to 1s. 3d. per bundle: Apples, Tasmanian, 4s. to 8s. per case; Strawberries, $1 s .6 d$, to $2 s .6 d$ per peck; Gooseberries, 1 s . 3 d . to 1 s .9 d . per half-sieve.
SPITALFIELDS: Ju!y 2 -Quatations:-Cabbages, 3s, to 58 per taly: Carrots, French, 2s. 6d. to 3s. per dozen bunches Turnips, 2s. to 3s. 6d. do. ; Peas, best blues, 2s, to 2s. $8 d$ per bushel ; do., bags, 4s. 6d. to $5 s_{.}$; white do., $3 s_{\mathrm{s}} 6 d$. to $43^{2}$ Broad Beans, 2s. to 2s. 6d, per bushel.
STRatrond: July 2.-There has been an excellent supply fall kinds of produce at this market during with a good attendence of buyers, a brist trade wae done; Quotations: Cabbages, 1s. to 3s. partally : Canlifowars, is to 8. 6d. per dozen: Gooseberries, 1s. 9d, to 2s 3d Per half ieve: ditto, 3s. $6 d$. to 4s. per flat: Red Currants, 38 ed to 4s. $6 d$, per half-sieve; black, ditto, 5s. to 5s. $6 d$ per halt ieve; White Cherries, 4s. $6 d$. to 5s. per half-sieve; black, ditto, 4s. to 43. $6 d^{2}$. per half-sieve; Cucumbers, 1s. $6 d^{2}$. to 3s. 6d. per dozen; Green Peas, 3s. 6d. to 5 s . per bag; ditto, s. 9 d . to 2s. 3 d . per sieve; Onions, Egyptian, 100 s. to 120 s. per ton.

FArringdon: Ju'y 4.-Quotations:-Apples, Tasmanian 8. 6d. to 9s. 6d. per case: Strawberriee, 2s. 8d. per peck rooseberries, 3s. 8d. to 48. per half-bushel: Raspberries, 2s. er amall basket; Cherries, 5s. per half-flat; Currants, red, 3s. to $3 s, 6 d$ per half-bushel ; do., blact, 68 . do. ; Pine-apples, 3. 6d. to 3s. each; Tomatos, English, 5s. per docen ( 1 lb .) ucumbers, 2s. to 2s. 6d. per dozen; Lettuce, 9d. per score Cabbage, 48. $6 d$. per tally; Carrote, 1s, per dozen bunches.

## potatos.

Borovgir : July 2.-Quotations: Old, 50 , to 100 s . per ton: New, 4s. to 10s. per ewt
SPMTALFTELDS: July 2--Quotations:-OId, Lincoln Bruce, £110s. to E?; Scotch Bruce, E\& 15s to 2310 s . New, Englieh uritans, \&ib to $\mathbf{E 7}$; Hebrons, $\mathscr{E} 510$ s. to $\mathbb{E}$; Rarly Rose, 25 to ES 10s. Fidneys. es 10s. to \&7 per ton.
ATratyond: Ju'y 2. - Quotations: - Old, prices ranged from 15s. to 80s. per ton. New: Knglish, 120s. to 150s. Jereey 130s. to $150 s^{2}$; Cherbourg, 110 . to 120 s. per ton.
Faratigion: Juy 4. - Quotatione:-Old : best, 70es. to $80 \%$; secondB, 40s. to 60 s . per ton. New: $130 \%$ to $150 \%$ per ton.

London Averages: July 3.-New: Hebrons, 120 s, to 130s. Early Rose, 110s. to 130s.; Jersey Kidneys, 120s. to 140s. Cherbourg, 110s. to 120s. per ton. Old: Magaums, 30s. to 50s. per ton.

## HAY.

Averages.-The following are the averages of the prices at the principal metropolitan markets during the past week:Clover, prime, 90 s. to 115 s : do. inferior, 50 s . to 80 s . ; hay beat, 60 s . to 92 s .6 d . do, inforior, 36 s , to 60 s . mixture, 70 s to 90 s . ; and atraw, 15s. to 34s. per load.

## CORN.

Averages. - Official statement of the average prices of British Corn, imperial measure (qri); for the week ending June 29, and for the corresponding period last year:-1895 Wheat, 26s. 1d. ; Barley, 20s. 3d.; Oats, 16s. 7d.; 1894 Wheat, 24e. 1d.; Barley, 20s. 5d.; Oats. 19s. 2d.

[The term "accumulated temperature" indicates the aggre gate amount, as well as the duration, of dearees o temperature above or below $42^{\circ}$ Fahr. for the peried named: and this combined result is expreesed in Day degrees -a "Day-degree" signifying $1^{\circ}$ oontinued for twenty-four hours, or any other number of degrees for an inversely proportional number of hours. 1

|  | TEMPIMRTURT. |  |  |  |  | Batraty. |  |  | Briget SUn. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 | AOCUKULATED. |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | Daydeg. | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | 10ths Inch. |  | , |  |  |
|  | 3 | 19 | 0 | + 103 | + 262 | 0 aver | 108 | 18.4 | 38 | 32 |
|  | 3 | 113 | 0 | $+$ | + 415 | 2 | 86 | 11* | 48 | 37 |
|  | 3 | 123 | 0 | + 51 | + 271 | $6+$ | 90 | 11.7 | 38 | 34 |
|  | 2 | 130 | 0 | + 12 | + 283 | 3 | 79 | 8.5 | 45 | 39 |
|  |  | 141 | 0 | + 43 | + 372 | 5 + | 70 | 95 | 37 | 37 |
|  | 3 | 141 | 0 | - 24 | +333 | 1 | 67 | 7.8 | 54 | 39 |
|  | $5+$ | 132 | 0 | + 56 | + 364 | 1 | 88 | 116 | 4 | 33 |
|  | $4+$ | 141 | 0 | + 42 | +303 | $4+$ | 78 | $1 \cdot$ | 34 | 38 |
|  | 4 | 141 | 0 | + 15 | + 337 | 0 ave | 72 | 12.5 | 48 | 45 |
|  | $5+$ | 135 | 0 | + 6 | + 275 | 1 | 98 | $12 \cdot 2$ | 33 | 36 |
|  | $4+$ | 138 | 0 | - 40 | + 195 | $3+$ | 81 | $14{ }^{-2}$ | 4 | 38 |
|  | $2+$ | 181 | 0 | - 13 | + 248 | 2 - | 86 | 109 | 59 | 49 |

The districts indicated by number in the first columen are e tollowing:-

0, Scotland, N. Principal Wheat-producing Distriets1, Scotland, E.: 2, England, N.R.; 3, England, E.; 4. Midland Counties; 5 , England, including London, 8 . Princtpal Grazing, Sc., Divtricts-6, Ecotland, W. '7, 10. Ireland. \&. Ohannel friaris.

## THEPA8TWREK

THE following summary record of the weather throughout the British Islands for the week ending June 29, is furnished from the Meteorological Office:-
"The weather was again fine and dry during the earlier part of the period, but later on the conditions became showery and unsettled generally, with thunder and lightning in many places. Over our extreme south-east counties, however, the rain was very slight and local. During a thunderstorm on the 20th the rainfall at Churchatoke was exceedingly heavy.
"The temperature was above the mean, the excess ranging from $2^{\circ}$ in "England, E. and the Channel Istands" to $5^{\circ}$ is "Scotland, W. and Ireland, N.' The highest of the maxima were recorded during the eariy daya of the week, when the thermometer rose to $87^{\circ}$ in 'England, $\mathbf{8 . W}$.' (at Llandovery). to $86^{\circ}$ in the 'Midland Counties' (at Bawtry), and to between $81^{\circ}$ and $83^{\circ}$ in moet other parte of the Kingdom. In thin 'Channel Isiands,' however, the highest readiag wae 790, and in "Scotland, X. and W.," $78^{\circ}$. The lowest of the minima were registered batween the 24th and 20th, and ranged from $37^{\circ}$ in ' Seotiand, Es,' adi $89^{\circ}$ in 'England, E., and the Midland Counties, to $48^{\circ}$ in 'Scotlasd, $\mathrm{W}_{0,}$ ' and to $3 y^{\circ}$ ia the 'Oharatel Islende。
${ }^{5}$ The rainfoll was again less than the mean in 'England, E. and S., and in the Channel Islands, as well as in Scotland, W., but just equalled the normal in "Scotland, N. and England, S.W., while in all other districte there was an axeess. At Churchstoke on the 20th, the abnormally large fall of 4.83 inches was recorded.

The bright sumshine continued very prevalent cenerally. and exceeded the mean in all dietricts. The percentage of the possible duration ranged from 59 in the 'Channel Itlands, and 54 in ' England, S.,' to 34 in 'England, N.W.,' and 33 in 'Ireland, N.'

** Owing to the large increass in our circulation, qos are reluctantly under the necessity of going to press some howrs earlier. Our contributors, who well know what this implies, will kindly aid us by sending their communications as early in the week as possible. Communications should receh us not later than Wednesday.
** Blants, Fruits, ETC., to en Named.-Correspondente sending plants or fruits to be named, or esking questions demanding time and research for their solution, must not expeat to obtain an answer to their enquiries in the current woek. Specimens should be good ones, carefully packed and numbered, nd not more thas sice should be sent at ons time. Loaves only, or lorists varieties cannot, as a rule, be named.

Addendum: MonarceSteawberry, We inadvertently omitted to mention in our report of the last meeting of the Royal Horticultaral Society that a First-clask Certificate was awarded the above variety, thown by Messrt. Lixton Bros. of Bedford.
Annual Importations, etc, of Hardt Feuts: Enquirer, I. W. A oummary is to be found once a month in our columnt. The consumption is not known, and cannot be known in the preaent condition of internal atatistical information. The value of import is usually given in our monthly tablen. Faller information could be obtained from the reports of the Board of Trade. For your fifth question, we mast again refer you to your Chronicle p. 714, isaue for Jane 8 this year.

Black Hamburgh Vines and Muscats: $F$. A. The inarching of an early on a late variety is seldom desirable; beaides, if the Muscat do not succeed you cannot expect that the Black Hamburgh would do any better on the roots of the former. There might be a light trace of Muacat flavour imparted to the fruit by the union, and probably there might reault a diminution of the dark purple colour, and maybe a toughening of the skin of the berriet.
Boors: W. G. S. The Carnation, by E.S. Dodwell, publiuhed at the office of Gardening World 1, Clement's Inn, W.C.-E Trimellin. Borticultural Hand.book and Exhibitors' Guide, mecond edition, published by Blackwood \& Sons, London and Edinburgh,-J. V. 1, The Chemistry of the Farm, R. Warington. Yea, apply to Secretary, King' College, Strand, London; 3, There is no one book that includes all you desire. W. G. Smith's Diseases of Field and Garden Crops (Macmillan). H. Maruhall Ward's Diseases of Plants (Society for Promoting Chriatian Knowledge).
Campanulatr Foxglove: J. B. Many thank. It if of frequent occurrence for several of the topmost flowers to become fased into one regular flower.
Carnations: Constant Reader hould know that the publither has no more to do with ach matters than the editor has with sdvertisemente. Your Carnations sre attacked with eel-worms, Burn the plants, and use fresh oil. No insecticide mould be used on fruitu approaching the ripening state.
Corrnction,-Fior "germinules," on p. 791, read "gemmules." Report of Yoha Gama: Mr. McPherson, of Londenborough Park Gardena, deaires ut to say that it was he who took the 2ad prize for black Grapen, and not Mr. J. Johnson, as wan stated by our reporter.
Cortage: Merton. If the cottage in given you in part payment for services rendered, you will have to quit it when the engagement comes to an end.
Galls on Lime Trabs: $\boldsymbol{H}, \boldsymbol{H}$. The galle are the Fork of a minute midge, Cecidomyia tloricola. The larva will be found in the centre of the gall.
Grapas Rustrio: Ji $\boldsymbol{R}$. The Grapen have been exponed to currente of cold air, or hard firing or the excestive ane of alphar whilet young. Sometimes
touching the berries with the hand, or hair of the head will canse it. There in no remedy, and all rusted berries should be cut out as soon as noticed.

Mildew on Vines: In Trouble. Beyond doing what you have done, you might place aancers about the honse filled with water in which flowers-ofanlphar bave been mixed, which will give off sulphurous fumes inimical to the mildew. The apote on the berries that you remark, are the dead patches of mildew. The skin thas affected has lost its vitality, and cannot expand as the berry grows in size, the consequence being that the skin will be ruptured, and the berry decay. When mildew attacks the frait that is inevitable.
Nabes of Plants: W. T. T. Ideaia polycarpa, Jadan, Bixaceze dicecious, Halesia tetrapteraMarshall. Leaf of Poplar, Popalus monilifera, the Canadian Puplar probably.-G. T.D Hyoscyamus niger, Henbane.-J. A. Roua polyantha-BogCottom. 1. Hs menophyllum tunbridgense ; 2, Aspidinm spinulosom; 3. Eriophorum polystachynm ; 4 Cotyledon umbilicus; 5 , Stellaria graminea.-W. $\boldsymbol{H}$. Magnolia glauce - A. M. 1, Potentilla fruticosa ; 2, Spirma confona; 3, an evergreen Oak; 4 Orchis pyramidalis ; 5, Orchis pyramidalis ; 6, Orchin maculata.-Ribes. 1, Epidendrum oncidioides; 2 Dendrobium Pierardi; 3. Pelargoniam tomentonnm (Peppermint-acented Geranium of gardens); 4 , Sedam Sieboldi; 5 , send in flower; 6, Buagainvillea apectabilis ; 7 , Geanera bulbosa, often called aplendens in gardens.-J. S. U. Kalmia angus-tifolia.-J.A.M. Pendulous tree, Planera Richardi; Roses viridifiora, the green Rone; the other plant not recognined.
Pin: © $\mathbf{A}$. R. B. \& Co. The Parple Podded, a variety of the Marly.
Thensis Lawn: G. G. 39 feet by 36.
Temtmonial: Merton. It belonged to you, and you should not have parted with it. You may claim it, but the dfficulty will lie in obtsining possesnion, if your late employer thould object to give it up.
Toustos: A. W. E. Refer to recent numbera, where vou will find the diveace mentioned under tne head of "sleepy disease."
Vrsus: S. A. The fungua in called Cladouporium viticolum. Burn all infeated leaves, and nex: season apray with a dilute solution of Bordeanx Mixtare at intervala of a fortnight, during the growth of the leaver, G. M.
Vises not Gmowng: :W.W. They will do no good, the Vine being above all things asun-loving plant, and by your own showing the sun cannot shine on the vinery or the border for more than four hours a day. Fancy what that means in cloudy weather. All your endeavours to carry out a proper mode of caltivation will be fraitlens.
Vines and Mealy-bug: N. Z. Having failed to extirpate the peas by means of the old recipes, why do you not give Richards' XI All Vaporiser a trial. It will not do harm to the Grapes or anything eles, and it is deadly to every kind of insect.
Whits-nlowered hona sugosa at Kaw: L. G. G. The plant mentioned is the variety Bianc double de Coubert.

Conmumications Rromived.-W. R.-G. T., Versailles,W. H. X.-F. W. O. - C. W. D.-G. J. I. -J. A.-C. de B.H. H.-G. W. E.-J. W.-8. B. C.-D.-Reseder,-K. C.H. F. E. - A. E. A.-M. M. C.-J. B,-A. P.-W. G. B. R. L. H. - A. D. - E. C. - J. A.-K. J. E.-E. M.-G. H. W. H. D. -T. F.-J. $O^{\prime}$ B. -D. T. F, D. B. O.-P. F. Le Suear.-A. H.-Harrison Weir.-L. de Smet-Duvirier. E. R. de I., Contich (many thank ; well known).

Fhotographs, SPECLMMNS, \&C, RECEIVED, WITE THANES. E. H. J. (out of focus), -R. I. L. - L. L., Brussels.-F. W.B.

CONTINUED INCRRASE in the CIRCULATTON OF THE "GARDENERG Chrontcle."
 fattion of wnowneing that the circulation of the "Gardeners" Chromicle" hase, sinoe the ruduction in the price of the paper,
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Roses at Gloucenter and Rotation of crops
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ease of
Trees and shrube-
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Flower ga den, the
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## SALES By AUCTION.

## Friday Next.

By order of Messrs. W. L. Lewis \& Co. Marvellous Importation of ONCIDIUM TIGRINUM, grandest of all the autumn-flowering O
ONCIDIUM ORISPUM GRANDIFLORUM Yellow and white forms of ODONTOGLOSSUM CITROS MUM, O. INSLEAYI SPLENDENS, in fine condition together with
Also very fine established plants, showing flower of CYPRI PEDIUM CHARLESWORTHII; fine healthy plemes, shawe), and C. NIVEUM, beantifully grown.
Tro healthy plants of CATTLKYA REINECKIANA, healthy plants in sheath, and C. CITRINA.
CYMBIDIUM LOWIANUM VIRILE,
CYMBIDIUM (Seedling), C. gigateum $\times$ C. elegans;

MESSRS. PROTHEROE AND MORRIS will SELL the above by AUCTION, at their Central Sale EXT, July 19, at balf-paest $120^{\circ}$ Clock

July 19, at half-past $120^{\circ}$ Clock
On view morning of Sale, and Catalogues had.

## Friday Next, July 19.

MESSRS. PROTHEROE AND MORRIS will inclade in their ORCBID SALE on FRIDAY NEXT. July 19. Two Plants of CATTLEYA DOWIANA, "ROSITA"," a supposed mutural Hy brid between Dowiana and skine lip, with golden feathering.
golden feathering. CYPRIPEDIUM CAUDATUM WARSCEWICZII, collected on the Chirigui Mountains, on the precise pot where Warscewicz discovered this beautiful form. The flowers are very large. Sepals yellow with orange veins;
petals often 30 inches long. roee purple, the large rounded petals often 30 inches long, rose
abellum rose-parple on the face.
Also a few Plants of an UNDESCRIBED CY PRTPEDIUM, dis covered with the above and a fine lot of EPIDENDRUM PRISMATOCAR
The Rare scarlet LexLIA MONOPHYLLA, collected in a neve locality at 5000 feet.
ODONTOGLOSSUM HALLII LEUCOGLOSSUM and XANTHOGLOSSUM, ODONTOGLOSSUM CIRRHOSUM KLABOCHORUM, EPIDENDRUM BICOBNUTUM, and various other rare species.

On view morning of Sale, and Catalogues had.

## Tueeday Next, July 16.

SPECLAL SALE-HUGH LOW AND CO. have pleasure in

MESSRS. PROTHEROE AND MORRIS, at their Central Sale Rooms, 67 and 68 . Cheapside, E.C., on TUESDA Y NEXT, 18 th inst,, at half-past 12 o'Clock $^{\text {Preciely, }}$ PHALENOPSIS SCHRODERIANUM. without the slightest PHALEENOPSIS SCBRODERIANUM, without the sightest this indiopensable Orchid that has ever yet been imported, and Our Collector has spared neither pains nor expense, only selecting the very best plants.
At the same time will be offered 250 plants of DENDROfrom Mount Kina Ealv, and which has not yet bloomed in England. The flowers are extremely handoome, being pure white, like D. formogum giganteum, but with oranae-red apots instead of yellow. The flowers are very sweet-scented, and leaves and atems are covered with black pubescens. It growa on Magnolia bushes, at at
The Sale will include the lovely and wonderfal suLboPHYLLUM DRARRT, 300 newly-imported plants of CATTLEYA GASKRLLIANA, CYPRIPRDIUM CHABLESWORTHI, all in bud and sheath; 150 importod C. LAWRENCRANUM, CELOGYNE DAYANA, ODONTOGLOSSUM Choice Orchids. By Order of HUGH LOW AND CO.

## Proliminary Notice.

## TWO DAYS' SALE.

The UNSOLD POBTION of the WILSON COLLECTION

M
ESSRS. PROTHEROE AND MORRIS have received instructions to SRLL by AUCCION, at their Central Sale Rooms, 87 and 68 , Cheapeide, London, E.C., on
TUKSDAY and W WDNRSDAY, Auguat 27 and 28,1895 , TVEsDAY ande, the Unsold Portion of the WILSoN COL :ION of ORCBIDS.

WITHOUT RESERVE.

| Saie contains, among other |  |
| :---: | :---: |
| ta) | Lycaste sitimeri alba superbe |
| Schroders |  |
| Reineckiana |  |
| Wagneri Vuylstekem- |  |
|  |  |
| attlega Gaskelliana alba | Odontoglossum de |
| alia elegans |  |
| Scottiana |  |
| pripedium Morganíe | " Bucl |
| gans |  |
|  | mburgkis |
| Meers. Sander and CO. will offer in this Sale, Without |  |
|  |  |
| tre least Reserve, a largo number of grand plants of the very fineat ORCHIDS, including the new white "bellatulum," |  |
| bellatulum albuM, new hybrid Leelio-Cattleyas, |  |
| white flowered Cattleya labiata with crimson labellum. |  |
| AS, CATTLEY 4 , new HYBRID SO |  |
|  |  |

$\mathbf{M}^{\text {ESSRS Exping, Suffolle. }}$ 1 are favoured with instructions from the proprietor, Mr. Thos. Jennings, to offer for SALE by AUCTION, in one lot, at
the Rothsay Houe Auction Rooms, Newmarket, at b. 30 o'Clock in the evening, on MONDAY, July 15, 1895, a Valaable
FREEHOLD ETTATE (Tithe free and Land Tax redeemed), FREEAOLD
consisting of 16 a. 0 r . 31 p ( (more or less) of good Accommoda-
tion Land of gaod soil, in a good state of cultivation, ano now tion Lase Market Garden and Nursery Ground, being well planted with thriving tre es; also a comfortable Dwelling-house, Barn,
Potting-Sheds. Lofts, Stabling, Pump of good Water, and the usual Domestic Offices, and two red brick and elate built Cottages with good accommodation, and separated from the road by a dwart bricik wal. The property, which is wated, at the junction of the Exning and Fordham Roads, is within 2 miles of Newmarket, and is let on a lease expiring on September 29 ,
Robert Graham, at the low annual rental of E76.
Robert Graham, at the low annuar Sale may be obtained of
Particulars and Conditions of Sall Particulars and Conditions of Sale may
Meessrs. A. HND A. RUSTON, Solicitors, Newmarket ; and of the Auctioneers, Rothsay House, Newmarket.

## Southend-on-Sea, Essex

To FLORISTS, NURSERYMEN, MARKET GARDENERS,

I1 ESSRS. TALBOT AND WHITE are favoured with instructions to sell by AUCTION, at July 20, 1895, commencing at 4 0'Clock precisely in the afternoon, the beneficial interest in the LEASE of "BEACH NURSERIES," Southchurch Beach (late Reed's), having an area of about 7 A Acres of Land, well stocked with choice Fruit Trees in full bearing, and showing well for the present season. The Premises include Two capital Dwelliog-houses
(one of which is let oft, and produces e20 per annum); also, a (one of which is let off, and produces $£ 20$ per annum); also, a Worlmans Cottaqe, at present let at 38 . per weel; extensive Vineries, 136 feet in length, planted with choice by 12 feet; heated by hot-water pipes; Peach-house, Greenhouses and Forcing-rouse, Shers and is held upon a Lease (14 years) direct from the Freeholder, at the very moderate rental of $£ 50$ per annum.
This attractive and excellent Nursery Garden has for many years been justly celebrated fcr its choice Grapes and other Fruit, and being within 1 mile of Southend, the demand for it is very great. A conside
Teas and Refreshments.
Printed particulars. With conditions of Sale, can be obtained of A. A. TTMBRELL, Esq., Solicitor, 24, Martin's Lane,
Cannon Street, E.C. ; of Mesers. TIM Cannon Street, E.C.; of Mesars. TMM BRELL AND Wo SON, Sol citors, Town Hall Chambers, Stratiord, Ke \% or of
A uctioneers, Anctioneers' Offices, High Street, Southend.
Hammerswich House, Hammerswich, near Lichfleld, Eam STAFFORDSHIRE.
Large and Important UNRESERVED SALE of GTOVE and MUMS, \&C.
MESSRS. POPE and SONS have received Torquay), to SELL by JUCTION, Fithout the least reserve Torquay), to SELL by AUCTION, without the least reserve,
on the Premises as above, on TUESDAY and W RDNESDAY, July 30 and 31, commencing each day at half-past $110^{\prime} 0^{\prime}$ lock prompt, the whole of the STOVE and GRERNHOUSE PLANTS, including fine specimen Lapagerias, Stephanotis, Maidenhair Ferns, Hoyas, Begonias, Bougainvilleas, Crotons, Asparagus, 100 Cameilias, 80 fine Azaleas, specimen Alla mandas, Dipladenias, zas ; sixteen very fine eppecimen Palm
and Tree Ferns, also Gloxınias, Cyclamen, Euphorbias, Poinand Tree Ferns, also Gloxinias, Cyclamen, Euphorbias, Poin
settias, Geraniunos, Fuchsias, Aloes, Fieus, Dracenas, Yuccas, settias, Geraniumas, Fuchsias, Aloes, Ficus, Dracænas,
\&c.; also a very fine Collention of Orchids, 20 very fine Coelo\&c.; also a very robiums, 70 Odontoglossum Alexandree; also Læuias, Cattleyas, Lycastes, Cypripediums, Oncidiums, Vandas, sc., a arge quantity of Garden Sundries, including Pots and Pans, two Marble Figures. \&c.
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WANTED, PURCHASER for part or whole abont 2000 Aralias 1000 Lilies 20 Ferns, var. spec. Cliveas, 100 Arpidistras. Chesp to clear.

Dden Junetion, Londan. ing Bulbe, on condition that orders be seat The Bulbs are of the very best quality, an
Traes and pacining free on board, Rotterdam, Hyacinthe, thed Tulip Artus, 12s. per 1000 Belle Alliance, 188. do Chrysolore, 24s, do. Duchesse de Parma, 136. do.
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Verboom. 18s. do.
Crocuses, all round 88. do
Apply, by letter, P. V. T.os 41, Wellington $8 t .9$ strand, W.C

## EXHIBITIONS.

SALTERHEBBLE and DISTRICT ROSE 8HOW.-THURSDAY, July 18 . 1895 , Schedales, \&rc
NEWCASTLE-ON-TYNE GREAT SUMWednesdas, Thuradar and Friday. July 24,25 , and 28 。1895 Entres close Juily 17. Por scheoules apply to-
J. J. GILLESPIE, J

Trentham Gardons.
$\Gamma$ HE TRENTHAM and HANFORD HORtictltural society will hold their eiobth ANNUAL EXHIBTTION on July 25.
GBOUP OF PLANTB, for effect-1at. E2o, and Silver Oup


 Hanford, Stoke oon-Trent.

CLAY CROSS HORTICULTURAI THIRTY-ETGETH ANNITAL SHOW, August 13, 1895. PRIZES, $\mathbf{t} 375$. Assistant Secretary, GEORGE LAMB
Clay Crors, near Chesterfield.
$\mathbf{B}^{\text {RADFORD AND DISTRICT CHRYS }}$ B ANTHEMTM SHOW. - FRIDAY and SATURDAY


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$200,0 \subset 0$ TRUM $\uparrow$ ET MAJOR, fine
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We are now lifting our Home-grown NAR CISSUS. We hold immente stocks of the following, amongst other kinds:

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Apecial Prices on Application.
DICKSONS NURSERIES, CHESTER.

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THE

# (bardenters' Clitronidle. 

SATURDAY, JULY 13, 1895.

A GLOUCESTERSHIRE GARDEN.*
SINCE the publication, in these columns, some N twenty years ago, of "A Year in a Lancashire Garden," there has been a succession of similar books. Some of these have been written with literary skill, but little knowledge of plants. Some have been more conspicuous for frothiness or sentimentality than for the advancement of knowledge. Rare, indeed, has been the oombination of an expert's knowledge and the scholar's reading with the fluenoy of a ready writer. Bat this is what the reader will find in the present volume, and having found it, he will assaredly, in Diokensian phrase, make note of it. The work owes its existence to certain papers pablished from time to time in the Guardian. As now colleoted, they form two series, one dealing with the aspeots of the garden in each month of the year, and the other with various categories of plants and misoellaneous cognate subjects. The garden is, of course, that favoured one in a warm corner of Gloncestershire which has been the object of loving attention on the part of two generations of plant-lovers. It is necessary to bear this in mind, for such a happy oombination of circumstanoes is rare.
Few things afford a better illustration of the character and proolivities of a man than does his garden. Tastes differ, opinions vary, natural intelligence and acquired knowledge are possessed in the most diverse degrees, and all these diversities become manifest in the garden. In some cases the plants exist for the sake of the garden, in others it is the garden that is the casket or the setting for the plants. No hard-and-fast line can be drawn between the two oategories as they occasionally blend or overlap. When this does occur, the result is a oombination of beauty and interest than which nothing more desirable can be imagined. The anthor of the present volume recognises this, for he sates at the outset that "every garden has its own special and separate character, which arises partly from the tastes of the owner or his gardener, but atill more from the situation, aspect, and soil of the garden." As a general statement this is, of course, true; but it is equally true in speoial cases; that the tastes and knowledge of the gardener oast their impress on the garden, even when the natural conditions are not propitious. Obatacles do bat serve to bring ont the skill of the gardener. The garden at Bitton is known by repate to so many that some acoount of it from the author's pen will be weloome:-
"It is not a large garden-the whole extent, inclading a good proportion of lawn, being about an acre and e half, and in shape a parallelogram, or double equare. It lies on the west side of the Cotawolds, which rise about half a mile away to the height of 750 feet; and about fifteen miles to the

* In a Gloucenterihire Garder, by Henry N. Ellacombe, M. A. \&e. (Edward Arnoln, 37, Bedford Street.)
nouth are the Mendips. These two ranges of hilla do much to shelter as from the winds, both from the cold north and easterly wind and from the mouthwest winds, which in this part of England are nometimes very violent. I attach great importance to this kindly ahelter from the great atrength of the winds, for plants are like ourselves in many respects, and certainly in this, that they can bear a very great amount of frost if only the air is still, far better than they can bear a less cold if accompanied with a high wind. The garden, then, has this advantage of shelter. It has also the advantage of a good aspect, for though the undalations are very slight, the general alope faces the outh; and it has the farther advantage of a rich and deep alluvial soil, whicb, however, is no impregnated with lime and magnesia, that it is hopeless to attempt Rhododendrons, Azalear, Kalmias, and a host of other thinga. It has the further diadvantage of being only about 70 feet above the sea-level, which makes an inauperable difficulty in the growth of the higher alpines. On the whole, the garden is favourable for the cultivation of flowers, and especially for the cultivation of abrubs, except those which dislike the lime."

This preliminary account is defective ; the acene of operations is brought before un with more or less fidelity, but the warm oolite wall ia not mentioned, nor is the water supply alluded to, and nothing is said as to the hiatory of the garden, although its prement condition can hardly be fully understood without some reference to its gradual progrean in the past. As to the gardeners, the moving spirits, the entire book teatifies to their devotion, their knowledge, their akill, their thankful appreciation. Canon Ellacombe in this volume take us round his garden, chatting pleasantly the while on plants and their way and apparent caprices, on soils and seasons, on the endless literary suggentions afforded by the aubject.

Ae we go on our way with the author, there in no distarbing element, no inclemency of weather, no hurry, no train to be met; bat there are the lawn and the noble trees, and the long series of plants of never-ending interest-there, too, is the genial and cholarly Canon at your elbow, full of garden-lore, botanic knowledge, and apt allation. Hard by in the well-stocked library, where is ample means of "verifying references." Close at band is the noble isteenth-centary charch, bat of this we mast not speak further than to say that it adds additional beauty and interest to the scene. Citation from uch a book is a difficult matter, but to show how observant its author is we may adduce the following pasage:-
"An aoon an it (the piatil of the Hazel) in fertilined vary carious thing happens, of which I know no other instance. The little flower is placed upon last year's wood, and if it were an Apple, or a Peach, or any other fruit tree, the perfect fruit would be there also. But the nut acts otherwise, it at once starts away from the old wood and forms behind itself a thin branch 4 or 5 inchen long, at the end of which it ripens into anot; and as it so travela it carriea with it the bract in which the flower was formed, and which at last becomes the pretty cap in which the not lies."
This fact must be familiar to many, but we do not remember to have seen any record of it. The course of proceedings is aurceptible of a different interpretation, but the fact remain. "Uplifting" and "concrescence" are, of common phenomena in plants. The fertilisation of the Hazel is in many way" precocions. The two red utylen are conspicuous enough at the time when the pollen is shed, but the observer may look in vain at that time for the ovales, or even for the ovary. They are not formed till long afterwards. The point is very carious, at bearing on the question whether or no the pollen does ever exert an influence on the various coveringa of the seed, as well as on the embryogerm encloed withia them.

The teroptation is great to dilate on other suggestive pasage in Canon Ellacombe's book, on the germination of reed, the forces called into play raring growth, the numberless "myateries" that
attract the attention of the observer, and incite him to attempt to explain them. The sources of interest are indeed endlens, and their practical application not to be overlooked either. "From another habit of many plants I get," says the Canon, "another object-lesson, from which I learn that plant-life knows no rent." With the requisite limitations, this is a true atatement of fact, but one generally overlooked by the gardener.
The gardener will find in the present volume numerous hint as to the cultivation of various plants, whilst the plant-lover, turning over it pagen, will come upon pasages which will keenly excite his sympathies. Read this and judge whether it does not express a great truth. Allading to an unweeded garden, wherein "thinga rank and gross in Nature posseas it merely," the author-a gardener, be it remembered, whose competence is above testimony, says:-"But I have almost an affection for weeds, a decided affection for some of them, and I have not much sympathy with those who asy that a garden is not worth looking at unless it is as clean an a newly-swept floor; it in a counsel of perfection which I have no great wibh to reach. A weed is but a good plant in the wrong place; I asy a good plant advisedly, having a full faith that where Nature plants it, it fills a right place." Oh , the lensons to be got from weeds, if we would bat turn them to account!

The pasarge above cited furnishes an illustration of the strengthening faith and cheery optimism which pervades the book, and renderm it so delightful to read. The author finds always something in the garden to "lift him higher;" he owns he is not fond of frost and now, but he recognise that they have their uses, and that we might be the worse without them, and with a thankful spirit he maken the beat even of a garden in December. "To have a garden where natare and the climate do everything, and man is called apon to do little more than scratch the ground and gather the flowers and fruit, might be very pleasant from one point of view, but it would take away all that to me constitutes the real interest of gardening in itm difficultien, and even it disappointment ${ }^{\text {.' }}$

## New or Noteworthy Plants.

## DORYPHORA SASSAFRAS**

THis in a plant (tig. 6, p. 35) that find no place in Nicholson's Dictionary, nor in any garden-list that we have examined, and which we may, therefore, conclude to be rare in cultivation. It was sent to us with a requeat that we would name it , from Mr . Thompnon, gardener to F. A. Newdegate, Eisq., M.P., Weaton-in-Arden, Naneaton. Mr. Thomson also obligingly furnished with the wecimen from which our figure was taken. It forms a highly aromatic ohrub, with opposite, hortly-stalked, coriaceous, ellipticacute, remotely-serrate glabrous leaves. The flowers are shortly-atalked, solitary, or in group of three, the buds surronaded by deciduous boat-shaped bracta. The perianth is about 30 mill. (asy, $1 \frac{1}{4}$ inch) acrome, spreading, with six leathery, whitish, hirute, oblong-acute megments. The stameng are nine in namber, each with a short filament, and two amall rounded gland at the base of the anther. Anther two-celled, connective, prolonged into a long slender awn. In the flowers we examined the pistils were abwent, or very imperfect; but they are described as numerons, free at the bottom of a cap-like receptacle. Each carpel lias a long atyle, and it aingle cell containa a aingle ovale.

The plant, which would require warm-greenhouse treatment, is by no mean nuttractive when in llower, but it chief value convists in it very aromatic fragrance. It is a native of Eantern Australia, New South Wales, and Queensland, closely allied to Atherosperma, and belong to the Monimiacer. M. T. M.

[^4]Dendrobium Imprbatrix, Kränzlin (Reichenboiona, vol. ii., part zii., p. 111, t. 95).*
"This new species is very similar to Dendrobinen Augusta Victoris, Kiänzlin, and is one of the mons stately in growth of all Dendrobiams. The atem reach to a height of 6 or 7 feet. The leaves an comparatively small, although in other Dandrobas leaf of 6 to 7 inches in length by $2 \frac{1}{2}$ or 3 inchen in breadth would be considered as a rather conniderabin one. The flower-spikes rise from the axile of the upper leave of the previous year, and very ofta exceed $2 \frac{1}{5}$ feet in length, carrying from thirty to forty flowers.

It is impossible to do full jurtice to such plants in the apace at our command, but atill the plate illurtrater the charming delicacy of its blossoms better than a long description. The affivitien may b briefly described as follows:-Dendrobiam veratrifoliam, A. Rich, has shorter and broader leavet, is is much amaller, and it racemes very aeldom excead 18 inchen in length; the petals are larger, and the side-lobe of the labellam maller. Dendrobinm Mirbelianum, Gaudich, is also a maller specien, but very closely allied; it has a larger lip, the middo lobe of which is atrictly lanceolate and acaminate, and the little apur is sharply incurved. Dendrobin Augusta Victorim, Kränzlin, the most showy of thr whole section, has petals with amethyst veins; the side-lobes of the lip are very blunt, and the throw creats are frilled and denticulated not only in front, bat on the upper side. The rest of the section is ant of the question for comparison, at their petals exceed the sepals by twice their length, and also bj other essential characteristics.
"Thir fine plant was discovered in German Nor Guinea, at Finchhafen, by Dr. Hollrung, and later on was collected by Mr. Wm. Micholitz, who found it, to use his own words, 'mostly on trees overhangive the beach. Ialand it in only seldom to be fond ;' and, he adda, 'it flowers probably in March-April' The raing eeason is not sharply defined, but it generally raina most from June till October, If should be grown in sharp heat, with plenty of sute light, and after flowering receive a long, dry rett."

## Orchid Notes and gleanimes.

## THE ORCHID HOUSES AT RAMBOUILLET

WHEN visiting the fine establishment of M. Aus Dallemagne, we were remiaded that at that tim more than 150 groupe of Orchide had been trast ferred to the Bordeaux Exhibition, where the were very generally asmired. The arrangement of the houses at Rambonillet compriaen a wilte garden in the fore-part, a large central house with on both sides, and opening into it, four houses o similar size. Thir, in fact, is the plan of the estab lishment started in Brassels by the Horticultart Internationale. In the winter garden a magnificent Kentia australis epringa from a large rock-work, on which various plants are growing. The central houro is full of Catilleya Warocqueana, Lselia purpurata, scm fine plants of unusual vigour; Angracem warquil pedale, and Vanda uavis showed equally ep health.

1st houve: Importations of Cattleya, howing
*Dendrobium imperat' ix ( 9 Antennata), Kränzlin.-Cnni bus aggregatis maximis multi-articulatis late viridibusad 13 . altis ad 25 cent. diametro; foliis oblongis coriacois, 15 , longis, 6 m . latis apice obtasís: racemis maximis multifion 75 cm , longis vel imo longioribas ; bracteis minutis pediod multo longioribus basi incrassatio $5-6 \mathrm{~cm}$. loogis; lateralibus o basi paulo latiore triangulis acutis in calcar minutum curvulum connatis margine undulatie, intur medio lineari modulato acuto; petalis paulo long semitortis linearibus antice paulum dilatatis obtasis lsbea lobis lateralibus rhombeis margine laterali et anteriore cildo culatis, intermedio vix expanso fere orbiculari margine undulato crispo acuto, disco lamellis 3 a basi in mediuces undulato crispo accuto, dasco lamellis a dasi in erectas deantict intermedii decurrentibus ibique in laminas erectas puleiestim latas subito abruptas ductis, lobis lateralibus puic antier venulosis; gynostemii parte libera brevi tridentata plans antiee minute piloeula. Nov, Quinea Oritat.
in Reichenbachia, vol. iz., tab. 95.
masses of bads. One plant of C. Mendeli had an unusually dark lip. 2ad house: C. gigas and aurea, growing aplendidly. 3rd houre: C. Monnix and Triansi adorned the stages, and did admirably. Above the path, at in all the other houses, a triple row of hanging baskets and pots of Orchid was arranged. 4th hoase: Seedling of Cypripediam and Dendrobiam; also Cypripediams, Phalanopris, a fine Cattleya Monizo alba, a plendid specimen of Cattleya Rex and Vanda Sanderiana. 5th house: Odontoglonsums, especially crispam, un-
magne's horticultaral eatablishment. Another and tenth house is full of Cattleyas, and in reserve, in a very cool place, are Odontoglonam criapum, Cattleya and various other Orchid deatined for the approaching Congreas at Bordeanx.

In a special kiok is installed a machine worked by petroleum intended to draw up water for irrigating.

The entire buildinge are surrounded by a fine fruit garden. The property was acquired by M. Dallemagne in 1892 ; in lens than four year he has formed
in apite of the absence of the lip, are by no mean onattractive-indeed, there is an increase of delicacy and refinement reanlting from the absence of strong colour.

> Lelia alauca, Bentham and Hooker, Lindenia, t. cdixv.

The Brassavola glauca of gardena. Flowers 5 inchea acrose, fragrant, roundish in outline, stellate, segments oblong, atraw-coloured lip projecting, white, with a purplish blotch, convolate at the base,


Hig. 6.-DORYPHORA SASSAFRAS. (8RE P. 34. )
unually well cultivated. One Lælia parpurata with an extra dark lip; a very beautiful Odontoglonnum aureum. Remarkable also were the Masdevallias and the namerous examples of Cochlioda Noetzliana which, suspeaded, formed a charming arch of bloom. 6th house: Odontoglossume in excallent henlth. 7 th house : Odontoglossums, among them many excellent varieties. 8th house: atill more of O. criapum, as well as Deporidiam atroparpaream; a remarkable Cymbidiam eburneum ; a gracefal Odontoglosame cirronam, and a flowering canopy of Cochlioda Noetzlisna. In addition to these house groaped together and show. ing the cunning of the master's hand, there is a ninth house which way b3 called the cradle of M. Dalle-
s splendid collection of Orchids, which won him, at Paris last year, the prix d'homelur from the President of the Repablic. Ch. De B.

## Odontoglosstay crispux.

A correapondent sends a spike of this Orchid bearing one perfect flower, whilst four others have the parts arranged in pairs crons-wise, thus the two sepals alternate with two petals and the lip in entirely wantivg.

## Cattlafa Mendeli.

Baron Sir H. Schroder sends fowers of this variety showing the same condition of effairs at in the Odontoglonum jut meritioned. We believe the plant throws similar flowers every year. The flowers,
anterior lobe broadly orate wcute. It in a native of Mexico, and requires to be grown in a cool house as a basket plant. It fiowers in early apring.

Lerlo-Cattleya varjeneveryana, Lindenia, t. cdlxvi.

A hybrid between Laolia grasdis and Cattleys labiata Warneri. Sogmenta roay-lilac, anterior lobe of lip frilled rich carmine. It iv dedicated to a Ruanian nobleman.

## Odontoalossom Halli xawthiwur $\times$, Lindemia,

 t. cdlxvii.A repated hybrid between the two specier named. Introduced frem Ecuador by MM. Linden.

## Cattleya Habdyana $\times$ var, Lindeni, Lindenia,

 t. cdlxviii.A gorgeous variety, with deep rony-lilac segments, lip blotched with golden yellow in the throat, with the anterior lobe alightly frilled, rich carminecoloured.

Cypaipbdium Littleanom $\times$
In the current number of the Orchid Review are given a description and an illastration of a supposed nataral hybrid in the collection of Mr. H. Little between the Bornean C. Lawrenceanam, and perhaps C. Dayanum, sloo Borneav.

## Orchidg at Fair Oax Lodge.

Mr. W. A. Gillett, the owner of Fair Oak, near Eantleigh Junction, on the London and SouthWeatern Railway, is a true connoisear of Orchids, and he has got together an excellent collection of apecien and good varieties of there plants. He finds in hic able and energetic gardener, Mr. Carr, an excellent caltivator. The gardener when he came to him fourteen yeara ago knew nothing of Orchida or their cultivation, and he is at the present time an instance of a man who by perseverance and a good share of common nense has become proficient as an orchidist. It would be diffieult for anyone to find fault with the atate of the plants under his care.
On the occasion of a recent visit to this garden I found in the cool-house numbers of plants of Odontoglossom criapum, one of this apecies having two epikes, 1 yard long, and carrying twenty-five bloome; of Miltonia vexillaria in noteworthy examples, namely, one with three new preado-balbs and ten flower-apikes, carrying altogether seventythree flowers of a large size and fine coloar; O. cordatum, O. Pescatorei, O. maculatum, 0 citromum, O. haotilabium, O. polyxantham, and Phalenopais. The diaplay of Odontozlossum was heightened by flowering examples of Epidendrum vitellinum majua, E. Godeffianum, Zygopetalam crinitam, Sophronitir grandifora, and Mandevallias in variety. Plants of Oncidiam ampliatam majus and C. aphacelatam showed, as grown here, their great usefulneas as decorative nabjects.
There was remarked a capital lot of planta (aixty) of Dendrobium Phalmnopsis Schroderianum, tome of them with very dark-coloured flowera. Dendrobium suaviesimum was observed in quantity, also a flowering plant of the comewhat rare Levlia majalis, Cypripediams Haynaldianam, concolor, Parishii, Lawrencianum, caudatom, Roerlii, calurum, Warnerianum, bellatulum, and a capitsl form of niveum, form part of the collection. A plant of Calanthe Turneri nivalis was making most antisfactory growth, as was also one of C. Veitchii. A specimen of Cattleya gigae imperialis gave promise of some good flowers thortly. Robaut plante which'had been in fine flower this reason were remarked of Vanda suavis, Cattleya Monsiæ, C. Mendeli, and Lalia purparata. E. M.

## Phalezmopsis Lindzni.

From the Journal des Orchidees for Jane 16, we take the following account of Phalænopsis Lindeni, Loher. :-"This new apecies was named in honour of M. J. Linden by the traveller who found it, and who gives the following description of it: 'Folia oblonga, abido-argentea, viridi-maculata; pedunculi purparei, bracteis parvis acatis; perigonii phylla exteriora et interiora subæqualia, obovata sabelavata, obtusa, albida (vernas nervum medium subrosea); labelli tripartiti lobi lateralem nubfalcati, oblongiobtusi, veraus banin interiorem maculis aarantiacis; scutello vel callo bilobo aurantiaco maculato; lobus intermedias cordatas, rotundatus breviter acuminatue, atriis quivques purpureis, bavi albidas, medio superiori amethyutinum.'
"The folinge of this apecien renemblen a little that of $\mathbf{P}$. Schilleriana, but the leave of the former are much narrower, almont eword-haped (Gladiolès); as to the flowers, they clonely renemble those of $\mathbf{P}$. rones, but are much larger-nearly double. Farthermore, they are remarkable for the colouring of the lip, the interior lobe of which in bright smothyst, with the buee pale rose; this division is decidedly
rounded, briefly acuminate, while in $P$. ronea it is
lczenge-shaped. M, Loher noticed that no other Phalanopsic grew in the apot whence this new apecies wat taken."

## PETER COLLINSON.

Linvenus was another of the many intimate frienda and correspondents of Collinson. The great Swedish nataraliat visited England, and a life-long acquaintance between the two men was formed. The Britiah Maseum contains copies of two letters which the English naturalist addressed to Linnman, dated reapectively 1739 and 1767 (2 Add. MSS., 28,545, ff. 140, 140b), the earlier of which runs as follows: "Dear Friend, I could not omit no convenient an opportanity by my worthy friend, Dr. Dillenius, to enquire after your welfare, and give you joy on your marriage. May much happinens attend you in that state. I am glad of this conveyance to express my gratitude for the particular regard ahown me in that carioun, elaborate work, the Hortus Cliffortiamus. Something. I think, was due to me from the Commonwealth of Botany for the great number of planta and seeds I have annually procured from abroad, and you bave been so good as to pay it by giving me a apecies of eternity, botanically speaking ; that is, a name as long as men and books endure." The plant to which Collinson refers is, of coarse, the Collinsonia canadensir, which is figared in the above-mentioned work of Linnæua (Amaterdam, 1737).
The MS. department of the British Maseum contains many handred letters written by and addreased to Collinnon, who appears to have been the gaide, philonopher and friend of nearly all the celebritien, botanical and horticaltaral, of the period. There are many from the Duke of Richmond, who wae living at that time at Goodwood, and who made extenvive alterations in and additions to the gardens there. The sabject of the present sketch was a frequent visitor, and so was his young son Michael. The letters which passed between them were of the mont cordial nature ; one of them, for example, ending thus:"Adien, my dear Peter, this cruel weather [the letter was written February 16, 1747.8], patte me quite out of all patience, butt in frout, or now, wett weather, or fine, I am, honest Peter, sincerely thyne, Richmond." In another letter, his Grace remark, "The amall Magnolias aro confounded dear, butt I munt have them, tho' I believe nobody else will be fool enough to buye any at that price." Collinzon was also a frequent visitor at Holland House, in the early fifties of the laat centary. Henry Fox, the celebrated Lord Holland, father of the even more famoan Charlen James Fox, had not jet been elevated to the peerage; whatever may have been his failinga as a politician-and there can be no quention that he was an adventurer of a very quentionable, and now. happily, obsolete type-his frienduhip for Collinson was genuine. Collinion was frequently at his house; an invitation to dine, in 1750, was backed up with the plea, "Lady Caroline han a thoumand questions to ask you about flowers, and I not much fewer about plants." Another invitation in 1752 ran, "Will you dine here on Satarday? You shall be guarded home," is a very carious and interesting illastration of the dangers which attended foot-paseengers in the auburbe of London at that period-for Holland Honse was not then aurrounded by bricks and mortar, and even Oxford Street and Tottenham Court Road were country fielde.
Peter Collinson's place of basiness was at the Red Lion, in Gracecharch Street. The name of his place suggente to us of to-day a public- house ; but the fashion of numbering houses had not yet come into vogue, and, an a conuequence, all the principal shopa were diatingaished by signe. From a very early age he lived at "Peckham, in Sarrey," a very different place to what it has aince become. It wes here that he formed a very extensive botenical garden. Through his marriage with Mary, daughter of Mr. Buehell, of Mill Hiil, Hendoo, in 1724, he eventaally came into poseestion of this place. The removal from Peckham thence, however, did not take effect antil a quarter of a century, aftewards.

He himself telly ua, under date April 8, 174y, "removed from my houne at Peckham, in Surrey; for tro years was tranaplanting my garden to my house at Mill Hill, called Ridgway House," "ten miles from St, Gilen's Pound, in Holbourn." The gardens \& Peckham and Mill Hill had attained such a high celebrity that a pablication of Collinson's catalogue appears to have been called for by some of the mot diatingaished naturalists of the time; and the remon for this non-compliance with their wishes in tha given in a letter of his, dated May 12, 1756, to Lita neas:-" You mast remember I am a merchank, man of great businens, with many affairs in my head and on my hands. I can never pretend to pablinha catalogue of my garden unless I had one of your ingenious papils to digest or methodize for me."
Collinaon began early to keep an alphabetical register of the plants which he cultivated. At his death in 1768 the catalogue, which had by himself been bound ap with the seventh folio edition of Miller's Dic. tionary, paseed into the possession of his son-inlaw, John Cater, of Beckenham, Kent, and there it remained until 1809, nearly, if not quite, anknown. In the tenth volume of the Linnean Society's Trannec. tions, Lambert gave some account of it. A quarter of centary later, Lambert obtained it, with Collinaon't copies of the sixth and eighth editions of Miller, atadded with notes and memoranda by Collinon. At Lambert's sale after his death, they passed into the posseasion of L. W. Dillwyn, who privately printed, in his Hortus Collinsonianus, 1843, all them notea, \&c., snd from which it appears that Collinaon introduced 119 plants. It would be interesting to know of the whereaboats of these three editions of Miller, annotated by Collinson, although Dillwyn' exceedingly intereating and valuable excerpts doabt less include all of the notes which posenes permanent va'ue.
Collinton atrongly urged the American colonitt to cultivate flax, hemp, ailk, and wine, which led to the cultivation of these industries in several of the States. Collinson was a liberal contributor to the collections of the British Museum ; and, according to the late Robert Hant, it was contemplated to appoint him as curator of the botanical divinion, This was not carried into effect, for what reason it is not now known. Collineon died while on a rinit to Lord Petre in Eseex, and enclosed in his will was a paper importing " that he hoped he should leave behind him a good nama, which be valued more than riches; that he had ondeavoared not to live uselesaly, and that all his daya he constantly aimed to be a friend 50 mankind." Dr. Fothergill wrote a privately-printed account of his friend in 1770, the British Maseam copy of which once belonged to Sir Joseph Banks, which is reprinted in the collected edition of Fothergill's worke, 1781. The original issue of thin biography contains an exceedingly good portrait of Collinson, engraved by J. Miller; and this portrait, reduced from quarto to octavo size, with the detailh alightly altered, was reproduced by Nichols in hit Literary Anecdotes, whence the illustration given at p. 6 is derived. W. Roberts.

## COOMBE COURT, KINGSTON-ON-THAMES.

Tar groundu here (the residence of W. A. Berad Eeq.), are extensive and picturesque. They were laid out tome yeare ago by Mesurn. J. Veitch \& Sont From the terrace in front of the fine red-brick manaion may be obtained some fine landscape riefto embracing a wide atretch of the Surrey hills. Grand masses of Rhododendrone, Azaleas, and othes flowering shrabs are features here, and meen from the terrace when in beanty, they have a wonderfully fine effect. Some fine named varietien of Rhodo. dendrons are grown, apecially noticeable at the time these notea were taken being John Waterer, The Qaeen, Francis Dickson, and Lady Palmertolen. Kalmiak revel in the peaty soil, and the Rhododer: dron beds are edged with them. That handoomenn of the Berberises, B. Darwinii, flourisher here, and the plants become covered with a profuaion of the
nrange-coloured blossoms. Some beds consisting of Ssummia japonica, golden Laurustinus, and Irish H-ath, edged with Euonymus radicans, are quite remartable

Hollies were remarked at growing laxariantly, some fine specimens in front of the house moved two jears ago being specially noticeable. Some good specimens of Abie Douglasii shifed three yeari ago have also done well, making good growth. The various forms of Capresur are attaining good dimensione. Ratino porado not seem to take kindly to the gravelly sub-soil here, and some of the fine S weet Bay: were much cut daring the past severe winter. Cedra Doodara finds a congenial home here, as do the Oake, Elmp, and Piceas. On the lower side of the grounde, abatting on to Coombe Lane, a long line of closelp-trimmed Limet gives an air of noder and geatnera cbaracteriatic of the whole place. A lake bordered by aitable trees is a very pretty and "reatful" feature.

Some bold mixed beds of Abatilons, Colens, Zea japonica, Ricinus, Caraations, \&c., in proximity to

Applea and Peara, principally as pyramide promise good crops, the root-pruning to which the treen were subjected two years ago having had a beneficial effect.

Veitch' Extra-early Forcing Cauliflower is ex. tremely early, and very dwarf. Sown the middle of February, cutting has been going on aince May 28. Pea Veitch's Early Selected was ready for picking on June 3. A fine breadth of 500 plant of that old but good Cabbage, Cattell' Reliance, stood the winter so well; ready irat week in April.

Amongat Potatos, Myatt's Ashleaf is much eateemed here, at is that fine-constitutioned variety, of excellent quality, 8choolmater.

Pea are grown in 100 -feet rowt, as a large family has to be upplied, the principal varieties grown being the old bat finely-flavoared Ne Plu Uitra, Veitch's Perfection, William I., Main Crop, Criterion, and Dachess of Albany.

A concluding note may be found in recording the fact that the whole place is well-managed by the gardener, Mr. Springthorpe. J. B.


Fig T. A COMPOSITE PEACH: PART PEACH, PART NECTARINE.
the manaion will conatitute attractive features a little later. The calture of the usefal and beautuful herbaceon plants is being taken ap. In the conservatory attached to the residence the usual foliage and flowering plant for decorative parposes in such atructures were in remarkably good condition.

In a range of houses 100 feet long in three compartmente, Pine-apple Nectarioe was carrying a good crop. Rowes on a back wall of this division do well in apring, exceptional top-light being obtained.

Black Hambargh and Masat of Alexandria are the favourite Graper grown, und the crop: are all that can be deaired.

Two npan roofed bouses, 130 feet in length, contain some well-fruited trees of Dr. Hogg, Royal Grorge, and Early Lonise Peachep.

The best forcing Surawberry is found in Augaste Nicaise, the picking commencing on April 1. White Ischia and Brown Tarkey Figa in pote give promise of gond fruiting. The favourite Melons are Countess and Frogmore Selected; Tomatof, Ham Green, Frogmore Selected, and Parfection.

In the kitchen garden, a fruit-wall some 300 yard in length, is quite worthy of note. The Cherrytrees on this wall are in the best of health, and reaching to the top of the 9 feet wall, the principal varieties grown being May Dake, mall, but carrying a good crop; Bigarrear Napoleon, Elton, Morello, Frogmore Bigarrean, Black Eigle, Old Bigarreau, and Eurly May, fruite of the latter being gathered early in May. On this wall some of the best varietie of Piams, Peachen, and Peary are also grown. Peart are, however, a carce crop this year.

## EARLY PEAS.

Carmfur, fair, and comparative triale year after year have convinced me that wo have too many varieties of Peas in caltivation. Taking the roundseeded early Peas, auch as Eclipse or Earliest of All (practically the same Pea), Carter's Lightning, Day's Sanaise, and Sangater's No. 1, the two former come in together, and the two latter a week later. If I had room for only one of those named I would grow Eclipse. As regarde the first early dwarf Peas, all of which, by the way, have wrinkled ceed, and are consequently of superior quality, William Harat, Chelsea Gem, and American Wonder come in almont together. The two former, however, having longer and quite as well-filled pods, are preferable to American Wonder. The real difforence between William Harat and Chelsen Gem in that whereas the weed of the former is blue when dry, the latter is white. When growing there is no appreciable difference, and both are firat-rate Peas, particularly uicable for early borders or framen. The early Pea (wriokled variety) that I prefer to all othera is Exonian, and for the reaton that it is remarkably early, coming in with the earlieat wection, is a good cropper, the pods being tightly packed, eight, nine, and ten Peas being a common number of seed in a pod. The Peas are of a dark green colour, and the flavour is excellent. In flavoar, it revembles the varietie Yorkahire Hero and G. F. Wilson. To poseens, as it does, the three attributes of earlinens, pridactivenens, and flavour, atamps it, in my opinion, one of the besto

Coming to second early Peas, two varieties atand out prominently, Gradus and Daisy, the former introdaced by Laxton and the latter by Carter. For earliness, Gradus excels Daisy, and, when true, it is really a grand Pea. It in a good bearer, has fine large pod of the Dake of Albany type, and in of fine flavour. Daisy ( $1 \frac{1}{2}$ to 2 feet) is one of the coming Peas; a wouderfal bearer, the pods coming in pairs, and they are large and well filied; it is, moreover, of compact habit and comen among the first of the aecond-early rection. Dr. Hogg is a good old necond-early Pea, and hold it place pretty well. William I. ia so apt to "sport" that growers are getting tired of checking ite waywardnene, and are inclined to drop ite cultivation. Gradus is alto atid to have this falt, but I do not think that it deserves a bad name. A stock of it sent out this meanon in packets was as full of rogues at it well conld be, but I have seen another atock which wat almost free of them. Meiars. Dickaon, of Chester, have a good early wrinkled Pea in Harbinger, which is somewhat after the atyle of Exonian, but it has not the deep colour of that variety, nor is it eo early by one week. Notwithatanding its pale colour, it is a good Pea.

In a trial of Pean, they must, to arrive at accurate resulty, be all nown on the ame day, on the same plot, and, from the beginning, be treated alike. To sow one variety on a border this year and another variety next year, is no trial at all. It is worse than useless, for often it in misleading. A. $H$.

## VARIATION.

This fascinating aubject receives a curiou illutration in the apecimen here shown (6ig. 7). Mr. Tborne, who kindly sends it, described it as Early Dagmar Peach, with a atripe or band which is that of a Nectarine. Uccationally we see Peachen and Nectarines on the aame bough, and an illatration of such an occurrence was given in our columns in 1891. When this phenomenon wat first observed, the narrative was received with incredality. An illuatration of this is shown in the Kew collection of drawings, where is preserved a coloured drawing, accompanied by a document formally attested by a number of botanical and horticultaral celebrities. Since that time aimilar occarrence has occasionally been noticed, not only in Peacher, but in Applea and other frait. Darwin, in his Animals and Plants under Domestication (1868), vol. i., p. 341, mentione neveral cases of the kind called from borticultaral literature. The earlieat case on record, it appears, is one stated by Peter Collinson, whose life forms the subject of a notice in the present innue; and Sir James Smith in $18: 21$ was the firet to record the occurrence of frait partly Peach, partly Nectarine, in character. Similar amalgamation are met with in Oranges. We have ouraelves seen a fruit half Orange, half Lemon; wee also Darwin, loc. cit, p. 336.

## PLANTS IN FLOWER in the royal botanic garden,

 EDINBURGH.Michelia foscata, perhape better known ander the generic name of Magnolia, is now flowering very freely in the temperate-house, the delightfal fragrance of its flowers being detected as soon as the house is entered. This fragrance should recommend it to a place in every greenhouse. The plant in about 8 feet high, of a shrub-like habit, with plenty of dark evergreen foliage. The axiliary flowers are of a light purple colour, the fienby corolla soon dropping, but they are prodaced for a long pariod of time. It is a native of China, and has long been in cultivation; it is eastly propagated, and growi in rich loamy ail. Young planta flower freely.

Orthosiphon ataminens is a native of India, Malaya, and ame other tropical countries. It flowers are very sttractive, at the present time the mont conopicuous part being the long filament and atyle that p:oject about $\frac{1}{2}$ 'nch beyond the bilabiate cocolla.

The plant is compact in habit，with herbaceous stems some 12 or 18 iaches in height，with ovate deeply toothed lesves；the inflorescence forms crowded racemer，at the apex of the branches． Plants struck in spring form bashy flowering ataff for atove decoration from May onwards，through the summer．（See Gardeners＇Chronicle，1869，p． 941 ）

A plant of Alberta magna in now flowering here for the first time．It is of a atiff erect habit，with opposite，ovate，coriaceous leaves．The inforeacence， which comes in the form of terminal panicles，consiats ci bright crimson flowers，the tube of the corolla being aboat an inch long，and lasts in a perfect condition for wereral weeks，and if the plant can be flowered freely it alould proves welcomeaddition to the greenhonse． After the corolla has dropped，two of the calyx lobes leagthen and form scarlet wings to the fruit．Although it has for several years been in cultivation，the firat record of ite flowering in this country was at Kew in 1893.

Tussacia pulchella is a Gesneraceoun plant，long ago introduced from the West Indien，and is a member of a small genus of four or five apecies，only $t$ wo of which are said to have been introdnced． The apecies under notice in a plant growing to about I foot in height，with a herbaceons atem and large opposite－ovate leaves，the margins of which are irregularly eerrated，and of a light green colour． The showy flower are produced apon axillary inflo－ rencences，which generally bear five flowers．The calyz is red，and about half the length of the corolla，which in light yellow in colour． When at reat，water ahould be aparingly afforded， but not entirely withheld，or the rhizomes may be dried up．They ahould also be wintered in a warm－ house．A figure may be seen in the Botanical Magazine，t． 1146.
Cacti in flower．－Several of thene intereating plants have been daring the past few weeks，and are， flowering at the present time in the succulent－honse． Two very pretty yellow－flowering plants are Echino－ cactue Ostonis，E．tricuspidatua and E．tabularis，thene are particularly bright，the atyle and atigma is of a dark parple coloar．The laat continues in flower for some time，opening in the morning and closing at night．Echinopsie triumphans has a deeply－ridged atem，rather eparsely dotted with apines and large pinky－white flowers，which do not possens a very agreenble perfune．Large numbera of the Mammil－ larian are in bloom，and thene are also attractive when in fruit．There are now in flower，M．Dillenii， M．exeudans，M．Staberi，and M．glanca，all bearing numerous dark red flowers ；M．Wildiana，with ita hooked spines is another desirable species［？］，and bears mach lighter flowera than those mentioned above，while M．glomerata has quite jellow flowers． Although many of these laat cannot be called showr plants when teen in quantity，they are alwaje in－ teresting，and deserve more attention than they get at the present time；while with the Phyllocactas with which so much hat been done in their hybri－ diantion，that none can fail to admire their large and brilliant flowers．R．L．Harrow．

## NOTES ON THE HARDINESS OF SOME OUT－OF－DOORS PLANTS AT BELVOIR CASTLE．

In the following liste of plante the names of those under the headings＂killed＂and＂merionaly injured＂ are given in full，and in the list of survivors only thone are given which are likely to be of interent to readers of the Gardeners＇Chronicle for that reason． Many planta doubtleas escaped irjary owiag to the elevation of the gardens，and the perfect drainage consequent on that elevation．The height varien from 360 to 460 feet above nea－level．The shelter afforded by the wood sarrounding the gardens was alao of great use in protecting the plante，sad eopeci－ ally noticeable was its effect in preserving Portagal Laurels，of which there are large numberi，many of the apecimenn being from 25 to 30 feat high；and Where these are situated in the wood iteelf no injary was done－whereas in exponed places this shrut has
lost most of it leaves，and some fow the tips of the ahoots．Those plants marked ${ }^{*}$ were growing in the Dachess＇Garden，which is situated on the aide of a hill 100 feet in height；this hill has a curved outline，and is open only to the outh－east，much of the sun－heat being therefore retained，and the garden rendered warm during the night．

The greatest amount of frost registered at the kitchen gardens at Belvoir，wa：$-3^{\circ}$ on a Glaisher screen，$-8^{\circ}$ on the grass，on February 8 ；the mean temperature of February was $27^{\circ} .26$ ，the mean of daily maxims in the sun for the ten day， February 5 to 14 ，during which the frost was most severe，was $79^{\circ} .40$ ，and during that period we had 62 hours 30 minutes of sunshine．I have no doubt this helped many of the plants considerably； many dwarf plants alao derived much benefit from the 4 inches of now which covered them daring the time the frost was most aevere－and the advantage derived from this covering wan shown by the Let－ tuces planted along at the foot of aouth walls，where the now had melted，being killed，whilat those on a west aspect，where they were all the time covered with now，survived．The frost penetrated the earth to a depth of 8 inches，and a heap of soil which laid loose above the arface， 18 inches．The ice on the lake wan 8 inches thick．This frout was much more evere than that of the winter $1860 \cdot 61$ ，when the loweat temperatare recorded here was $-1^{\circ}$ on a Glaisher acreen，and $-5^{\circ}$ on the grasi，this wat on Dec．25， 1860.

## Killed．

| Killed． |  |
| :---: | :---: |
| ＊Arundo conspicua（some | Mühlenbeckia］complexa |
| ＊Casuarina tenuifoliaCampanula $\quad$＊Olearia illicifolia（killed to <br> the ground） |  |
|  |  |
| （some plante） | Photinia japoni |
| ＊Dasylirion Bige | Phormium tenax（killed to |
| ＊Elreagnus macrophy | the ground） |
| Fig on south wall（silled | Pislacia Lentie |
| the ground） | Rose Noisette W．A．Richard－ |
| ＊Gynerium argenteum（some | son on south wall（large |
| ＊⿴囗十⿱⿰㇒一大口 | Tecoma radicans |
| Muci Injured． |  |
| ＊Azara microphylla <br> ＊arundu Donax | Lonicera fragrans，flower |
| ＊Arundinaria falcata | unosa |
| Arbutus ITnedo | Magnolia grandiflora |
| Apricot on fouth | ＊0learia Huastii |
| Abelia floribun | Osmanthus illicifolius |
| ${ }^{*}$ Acacia cealbata | Photinia serrulata on |
| D |  |
| Darwinii | Pernettya mucronata |
| mbusa Meta | Preonia Moutan |
| Cratepquspy racantha on north walls | ＊Rhododendron fragrans |
| Cedrus Deodara，where ex－ posed | Rose，$\underset{\substack{\text { Banksian，} \\ \text { south wall }}}{\text { sellow on }}$ |
| Chimovanthus fragrans，th flowers killed | n H．P．and Tea in many varieties |
| Ceanothus Gloire de Ver－ | ＊Ruscus aculeatus Rubus phuenicolasius |
| Deutria scaber | Spirea prunifolia |
| ＊Diplopappus chrysophyllus <br> ＊Escallonia macrontha | Uit $\mathbf{I}$ europeus（killed to the ground） |
| Jasminum Lffici | Vitis vinufera on west wall |
| Sligetly Injured． |  |
| Arbutus Andrachne <br> ＊Androsace lanuginosa <br> ＊Andr meda ovata <br> ＊＂floribunda <br> ＊Acer polymorphum atro－pur－ purtum | ＊Eremurua ro |
|  | ＊Eacry pha pionatifda |
|  | Geniota hispanica |
|  | ＊＊ydragrea hortensia japonics |
|  | ＊Halesian tetrapta |
|  | Iris Kæmpteri（protected |
| Ampelogais japonica | Lavandula officinalis（killed |
| $\because$ Veitemi |  |
|  | Lilium auratum |
| ＊Amygctalus communis | Magnolia conspicua Sout |
| －Berberis stenophyluax | langeana |
| ＊＂，japonica | Punica granatum（on sou |
| ＂Clerocendron trichotomum Clematis montans | ＊Rhododendron Falc |
|  | ＊ferrugineum |
|  | hirsucum |
| ＊Camellias in variety（lost a few leaves，and some of Salisburi |  |
|  |  |
| Cerasus lauroctrasus |  |
| Cerasus iauro－cerasus | ＊staphy |
| －Lusitanica Spartium janc |  |
| Cedrum atlautica ${ }^{\text {a }}$ |  |
|  |  |
| Choisys ternata（bush on＂sk ariefoli |  |
|  |  |
| caped completely） |  |
|  | duum dist |
| ＊hamarops Fortunei（pro－＂sempervirens（injured |  |
|  |  |
| ＊Colutea arborescens |  |
| Cypripediam spectak ile |  |
|  |  |
| ＊ 0 ＂japonies <br> ＊Cunninghamia sinensis <br> －Daphniphyllum glaucescens |  |
|  | Wallfo |
|  | Yueca recars |

－W．H．Divers，Belvoir Castle Gardens，Grantham，

ROTATION OF CROPS．
Plant．food taren up．－At the commencement of this nubject，see May 4，p．550，it was pointed ouk that although many different rotations are adopted， they may for the most part be considered as litth more than local adaptationa of the ayatem of alter nating root－crops and legaminous crops with the cereal grains．Thus there are rotation of five，sing even，or more years．But these variations are，il most canes，only adaptations of the principle variations of soil，altitude，aspect，climate，marketa， and other local conditions，and they consist chiefy in the variation in the description of the root cron and perhaps in the introduction of Potator，in grom． ing a cereal，or it may be more than one cereal consecutively，in the growth of some other legre minous crop than Clover，or the intermixtare with the Clover of Grass seede，and perhaps in the exterb． aion of the period allotted to this element of the rots． tion to two or more years．

It is true，also，that under any specific rotation， there may be deviations from the plan of retaining the whole of the root－crop，the straw of thin grain crops，and the leguminoas fodder crop on the farm，for the production of meat or milt， and，coincidently，for that of manure to be retural to the land．Bat it is also true that，when underth influence of pecial，local，or other demand－proxivity to towns，easy railway or other communication，ad so on－the products which would otherwise be we tained on the farm are exported from it，the impat of town or other manures is generally an enentid condition of auch practice．Indeed，this aystem of free anle very frequently involve foll compenation by purchased manures of some kind．In our om country，anch deviations from the practice of merdy selling grain and meat have been much developed in recent years；and they will doabtlese continue increase under the altered conditions of our agio culture，dependent on very large imports of guitir increasing imports of meat and other products feeding，and very large imports of cattle－food nl other agricultaral produce．Already much men attention is being devoted to dairy prodacts，not only on graas farme，but on those that are mainly arally and there will doubtless be some，bat probably by mo means so great an extention as some suppose，in th production of other amaller articlea required by twin popalations．
It in further true，though the remark applies is very limited degree to our own country，that then are other deviations which have more the charater of exceptions to the general rale of rotations，andil at the introdaction of Flax，Hemp，Tobacco， other so－called induatrial crops．Bat in these curt as with Potatos，the giowth involves apecial + spets diture for manare，instead of conservation of it Indeed，the inducement is the high price of product，rather than the maintenaace，or the 1 is provement，of the condition of the land for fatal crop．

Still，at such deviation from segular rotatiol practice as have been referred to $\mathrm{d} r$ ，as hat bet uaid，generally involve more or lens compensation to manare from external sources，attention is confur for the purposes of illuatration to what mas called the self－apporting ayotem，and to the aisply four－course one which has been selected for invel gation at Rothamsted．
Brief reference only can be given to come of more important mineral constituente foand in different crops of the four－coarse rotation．
Of phomphoric acid，the cereal cropt take ap much as，or more than，any of the other crops of rotation，excepting Clover ；and the greater portiver of what they take ap is lost to the farm in the is is able product－the grain．The remainder，the lef the atraw，at well as that in the roots and the $\log ^{0}$ minout cropt，is apposed to be retained on farm，excepting the nmall amount exported in of and milk．

Of potash，each of the crope take up very more than of phomphoric acid；but mich
potash than phoshoric acid is exported in the cereal grains, moch more being retained in the straw; whilat the other products of the rotatiouthe roots and Lepominonx-which are also supposed to be retained on the farm, contain very much more potah than the cerealr, and comparatively little of it is exported in meat and milk.

Of lime, very little is taken ap by the cereal crope, and by the roots much less than of potash ; more by the Leguminozx than by the other crope, and, by the Clover enpecially, sometimen much more than by all the other crops of the rotation put together. Of the lime of the crops, however, very little goes in the saleable producte of the farm under tha conditions apposed of a self-supporting rota tion. There is, however, frequently a considerable lons of lime in land drainage.

The interpolated cropa of rotation-the roots and the Leguminorm-take up acarcely any silica; but the cereals take up a very large amount of it. Indeed, the large mount of silica taken op by these crops when grown under ordinary conditions, ia at characteristic a chemical phenomenon of rotation as in the very large amount of lime taken ap by Clover and other Leguminosæ. Very little ailica, however, is lost to the land in the anamed saleable prodacts.

Although the eventaal loss to the land of mineral constituent ir , in a self-supporting rotation. comparatively so amall, the very fact that the difforent crope require for their growth, not only very different amount of individual contituente, but require these to be available within the soil in very different conditions, both of combination and of distribution, points to the concluaion that, in any explanation of the benefite of an alternation of crops, the position, and the role of the mineral constituent must not be overlooked; and the less can it be so when their connection with the very important element-the nitrogen of the cropm-is considered.

As to the nitrogen, it has been aeen that, although very characteriatically benefited by nitrogenou manures, the cereal crops take up and retain much less nitrogen than any of the crops alternated with them-in fact, the root crope may coatain two or more times as mach nitrogen as either of the cereals ; and the legaminous crop, especially Clover much more tban the ruot-crops. The greater part of the nitrogen of the cereals is, however, sold off the farm, but parhapn not more than 10 or 15 per cent. of that of either the root-crop, or the Clover, or other forage leguminous crop, is sold off in animal increase or milk. Tane, most of the nitrogen of the atraw of the cereals, and a very large proportion of that of the much more highly nitrogen-yielding crops, returas to the land as manure, for the benefit of fature cereale and other crops. Indeed, it it, at a rule, only a comparatively amall proportion of the very much increased amount of nitrogen obtained in rotation compared with that in continuous cereal cropping (chiefly due to the interpolated crops) that ia lost to the land in the asleable product.

1s to the source of the nitrogen of the so-called restorative crops," it has been shown that certainly in the case of the roote it is not, as has sometimes been asaumed, thet nuch plants take up nitrogen from the air by virtue of their extended leaf-surface Both common experience and direct experiment demonatrate that they are as dependent as any crop bat is grown on available nitrogen within the soil, which is generally supplied by the direct applica tion of nitrogenous manures-natural or artificial Uader such conditions of supply, however, the root crops, gross feeders at they are, and distributing a very large amount of fibrous feeding root within the soil, avail themselves of a much greater quantity of the nitrogen supplied than the cereals would under aimilar circumatances, this result being partly due to their period of accumalation and growth extending even monthe after the period of collection by the ripening cereals has terminated, and at the season when nitrification within the soil a the most active, and the accumulation of nitrates in it is the greatest. Latily, foll supply of both mineral constituent and nitrogen being at command, these crope antimilate a very large amount of
carbon from the atmosphere, and prodace, besides nitrogenous food-prodacts, a very large amount of the carbohydrates-sugar, as respiratory and fatforming food for the live-atock of the farm.

The atill more bighly ditrogenoas leguminous crope, on the other hand, although not characteristically benffited by nitrogenous manurfa, nevertheless contribate much more nitrogen to the total produce of the rofation than ady of the other cropa comprised in it. It is aleo certain that, at any rate, a large proportion of the nitrogen of these crop is obtained from the woil and ab-soil; though recent inventigations beve proved that some of their nitrogen, and sometimes much of it, may be derived indirectly from the free nitrogen of the atmonphere, breught into combination under the influence of micro-organiam within the nodales on the roots of the plante.

Bat independently of the benefite arising from the difference in the requirements and results of growth of tha different crops, of the iocreased amount of manure available, and of the increased aale of highlyvaluable animal products, there are other elemente of advantage of conaiderable importance. For example, with a variety of crops, the mechanical operation of the farm, involving horse and hand labour, are batter distribated over the year, and are therefore more economically performed.

Last, but by no means least, the opportunitien which alternate cropping affords for the cleaning of the land from weed is a prominent element of advantage. J. J. Willis, Harpemilen.

Forestry.
the natural regeneration of WOODS.
Few branchea of Britioh foreatry probably are more neglected than the restocking of mature woodland by means of aelf-aom seedlings. Although it occure more or lest in every seed-bearing wood, yet we seldom, if evar, find any syatematic methods adopted to bring it about in a uniform and antisfactory manner. It requirea, of course, a certain amonat of akill and jadgment on the part of those who regalate the management of the wood previous to, and at the felling of the old crop; bat beyond this, the eatablishment of a healthy crop of young trees by this means is as simple as raising a farm or garden crop by artificial sowing. Jast as a seedbed is prepared in the case of the latter, so mast one exist for the reception of the seed which falle from the parent trees, and this is the requiaite which is chiefly lacking in our woods.

A good forest seed-bed prepared by natural causer, differe with the species which are to occapy it. For the proper development of a seedling into a sapling, the sead mut germinate upon matter which will sapport the plant a'ter ite atock of renerve material (atored up in the cotyledons or endosperm) has given out, and it mast also be exposed to sufficient air and light for its leaves to carry on their work properly. In dense woods, especially when composed of shadebearing species, a thick laver of raw , or partially-decomposed humas, existp, which is not anfisiently compact to retain moisture for any length of time, nor has it auch an intimate connection with the coil beneath which would set up capillaritp. Uader these circumetances, a aeed falling upon the foreat floor may germinate, but invariably perishes from insafficient moistare and natrimant in the course of a few days. To effect the decomposition of this inert matter, the annual leaf-fall mutt bs checked, and an and wind allowed to act upon and hasten the decomposing process. For this reason, the felling of a wood which it is intended to regenerate naturally, is ually performad at two diatinct periods. Two or three yeara before a seed crop is likely to occar, what is known at "preparatory felling" is made, which removee about one-half, more or lenf, of the trees, and greatly reduces the leaf-canopy. This felling has a twolold object-the reduction of the humas-
layer, an already mentioned, and the expoure of the crown of the ramaining trees to the sub, of at induce and farour the formation of flower-bade and thas briag about a plentifal crop of seed. After the latter occars and falls to thaground, a second felliog is made in order to farther lighten the canopy for the benefit of the seedlinge which appear in the following apring. Tae extent of this felling depend upna the requirements and nature of the seedlinga. Ia the care of shade-bearers, wach as Beech or Horabeam. anflisent trees may remain to form a light but fairly regular abade, as the former of thene species is very mencitive to late frosta, and the meedlinga are easily destroyed during the firat year. Where the parent trees posess comparatively light crowns, a Osk or Aah, the ame proportion may remain with out interfering with the seedlinge, for this canopy prevents the drying-up of the ground and baking of the surface, and thas favours the growth of the seedlings. A'ter the satter are fally established, the remaining trees can be gradually removed, and the blanks which occur filled ap by tranoplanting aeedlinge from the thicker parta.

In the case of Conifers of the Pine genay, heavier felling at the time of the eed crop is necenary, at Pine seedlinge require plenty of light, and the preparatory felling is also of importance, as unless the radicles come quickly in contact with the mineral soil, a large proportion perish. With the Scot' Pine, for instance, fifteen to twenty trees per acre are amply sufficient to provide the necessary seed, at the winged form of the latter enablea it to be carried long diatances by the wind. Tae development of this wing upon fine seed furnisher an interesting field of speculation for the evolutionist, and those acquainted with the peculiarities attending the nataral regenerasion of this tree are able to recognise the enormous advantages which this wing confers upon the seed with regard to it distribation and conveysnce te suitable localitien for it germination. Whatever the reason may be, the fact remaint, that both the germination of the seed and the growth of the seedlinge occur most readily on niten which have never, or at least not recently, borne a crop of timber. Oa heathy moors, whether these be wet or dry, peaty or gravelly, this specien quickly entablishes itnelf, proriding a few eeed-bearing trees are within reasonable distance, and the heather is not too long and rank to provent the seed reaching the noil. Bat ander its own shade, or that of other trees, the Scots Pine faila to reproduce itself in a astisfactory manaer; hence the necesaity for mean of locomotion other than those anally provided in the case of mont other tree apecies.

The real necret of anccone in all cases of natura reproduction is the total sappression of undergrowth. Whether this conviate of grase, brambles, or coarse weeds, a regular crop of any kind of seedling is imposnible, and with eome apecie the germination, ander such conditions, of a seed becomes a rare occurrence. This suppression can only be effected by maintaining a clone and unbroken leaf-canopy for several years previous to the preliminary fellinge. With light-demanding apecie a dense canopy is difficalt to obtain, unlest a mixture of some shadebearing tree, usually Beech, is introdaced either at the time the crop is planted or later on, according to circumatances. By auch mean a clear field it left for the weed of the legitimate crop, which are able to germinate and make a fair growth before waed and coarte grasees get posseasion of the soil.
Tae chief obatacle in the way of nataral regeneration, or the adoption of measures for securing it, is game cover. We have never been able to underatand the precise difforence between a crop of young treen from five to twenty yearm of age and a crop of nettles, brambles, bracken, \&cc, so far at their value an game cover for pheasants goes, eapacially when, as in invariably the case, a fair proportion of the latter are mixed in with the former. But this is a matter of which the layman in not qualified to judge, any more than of the character of the hand-reared pheasant. In the eyen of the inexperienced this bird appear to reaemble a rather shy barn-door fowl Fith just eafficient fear of man to keep twenty yards
or so out of bis way. Bat we are given to understand that this bird is so painfally shy that the cracking of a dry stick, or the occasional soand of the axe is sufficient to drive it "out of the cover" (whatever destination that may be), a coarse which it seems loth to adopt before an army of beaters. A. C. Forbes.

## ELMET HALL, LEEDS.

A view of the picturesque rockery and other parts of the garden at Elmet Hall, the property of J. H. Kitson, Esq, was given in the Gardeners' Chronicle, April 28, 189t, and the issue of May 5 contained some account of the pretty and extensive gardens which are managed by Mr. T. Bonsall, the remarks on that occasion relating chiefly to the gardens ontdoors. A recent visit found the eatablishment beantifal as ever, the rockery bright with large tufts of pretty alpinea and other herbaceoas perennials. Some large patches of the lovely dwarf blue Myosotis rupicola, the yellow and purple Arnebia echioides, of blae Gentian, apecies of Edrianthau, Androsace, Lithospermum Gastoni, snd other plants of similar class being specially beantifal, and the herbaceous plant-garden for tall and strong growers formed on the site of the old kitchen-garden, a bewildering mask of varied colours. From the mansion beautiful views of hill and dale open up on all niden, and care is taken to prenerve the continnity of the scenery from the very walls of the house to the raniohing point, the intervening apace of garden and pleanare ground being arranged so an to merge into the diatant landscape, and this object is mainly attained by keeping a large unbroken expanse of green lawn around the house, and making no provision for flower-beds containing Pelargoniums and other thinge aacally denominated bedding plants, which are often allowed to mar what would otherwiee be pretty views.

## The Orchids.

In the glasmoares a collection of Orchids was commenced cme time ago, and under Mr. Bonsall's akilfal management the ventare being nuccenful, and the floweri found opecially adapted for catting for ase indoors, addition have been made, antil now a large number of plants of showy apeciea are remarkably well grown, and occupy places in most of the plant-hcusen, as well an in thone devoted entirely to Orchids. Perhaps the greatest success hae been attained with the cool Orchids, the range used for their cultare being at the present time filled with some handreds of atrong plants of a good strain of Odontoglonsum crispum, chiely establibhed plantu, though there was a batch of importations of the present year, which are making satiafactory progress. Some few other apecies of Odontoglossum were in flower ; bat $U$. critpum, in its various forms, is the favourite here as in mosto other gardens.
The Melon-house, with its good crop of fraits, is utilised for growing Dendrobiam Phalmopopia Schroderianum, of which there are many plants, and other apecies requiring a high temperatare, and some of then were in bloom. Here, too, Calanthe Veitchii and others were being grown in quantity.
In the next, an intermediate-house, there was remarked a fine plant of Coryanthes maculata suspended at the entrance, the two pendent upiken bearing each three of the large fleshy and singularlyformed, light orange-coloured dowers; the plant, which is in a basket, was growing luxariantly. In the same house in flower were fine planta of the bright Oncidiam ampliatam majus, the rose and parple 0 . Lanceanum, O. Cebollete, O. flexuosam, Peristeria elatsthe Dove Orehid, Cypripedium candatam, C. philippinense, C. Lawrenceanum, and other Cypripediama and Utricularia montana. In the apan-roofed range wan a fine show of Lxelia purparata and L. tenebrosa, with a plant or so of the true L. grandis, some Cypripedium bellatalam, well-flowered plante of Dendrobina Bensone, D. Pierardi, and several handsome Odontoglossum citrosmam. Here nome of the plante were noticed to be mandiag on mamall brase tara-table, which have the merit of posseasing
holders for water in the lower division, the upper half on which the plant is placed, and which revolves easily, allowing the plaat to be readily turned round for examination or to alter ita position from time to time as may be found necensary, in order to cause it to grow equally on all sides. The need of some such an arrangement has long been felt by Orchid-growert, and some rather heavy revolving irous atands are in ane; bat these brass ones, invented and patented by Mr. Kitson, are ar long way in advance of former things of the kiud, and apparently difficalt to improve on.
In the next honse, the show of flowers was chielly farnished by Dendrobiam, Cymbidiam, and Masdevallia Harryana. There were in bloom a lot of Lycaste Dappei, some L. aromatica, covered with yellow flowers ; a fer handsomely- flowered plants of Rodriguezia venusta (often called Barlingtonia fragrans), the pretty Phaius Owenianue, Nanodes Medusæ, Maxillaria Sanderiana, 8cc.

## Miscellaneous.

In the large atove, a few Phalænopsis were auspended among the Nepenthes; and of the latter, \& specimen of Nepenthes Curtisii with two stems, displayed a carious diasimilarity in the form and colouring of ite pitchers. The basal ones are of the ordinary form, and profasely blotched with dark red; the apper ones more slender, and perfectly green, without spotting. Some other good specimens of Nepenthes were N. $\times$ Mastersiana, which is undoubtedly the best of the N. sangainea clas, and a favourite everywhere ; N. R\&ffesiana, and N. Morganix. Also in the house were some well-flowered specimens of Clerodendron, Eacharis, Masa Paradisiaca, fruiting; and other showy plants ; and on the roof Aristolochia elegana, Gloriosa superba, and Stephanotis floribunda; at one end being a collection of Stanhopeas which are very healthy and in good condition to flower.
Pasaing through one well-cropped vinery we noted large bushen of Rogieria gratinsima covered with Howers, and a quantity of Streptocarpas yielding a profation of Gloxinia-like blooms. In the Camelliahouse some Lilies were flowering, and in another vinery were Ferna, Palmp, \&ce., and a nice diaplay of Gloxinias. This lofty old-fashioned vinery range has the apper part oncloned, and fitted with ntaging and walk, the apper part being now used for growing decorative flower and foliage plants. Another range had a quantity of Tea Rosea in pots and planted out; and other house were filled with amall Crotons, Dracænas, Ferns, \&cc., such quantities of which are continually in demand that Mr. Bonsall must exercise considerable skill and forethought in preparing the sapplies in different stages, sach as are in the Elmet Hall Garden. J. O'B.

## The Week's Work.

## THE ORCHID HOUGEs.

## By W. H. Watre, Orchid Grower, Burford, Dorking.

PLATYCLINIB FILIFORME AND OTHERB.Amongat plants now in flower, Platyclinim filiforme may be connidered a gem, it alender drooping racemes of small golden-yellow flowers being especially stractive. The flower-atike are produced from the centre of the young breaks, which at this particular time are only partly developed; it is, therefore, necenary that the plant should have copious aupplies of water afforded it antil the pseudobulbs are matured. Overhead ayringing is not advisable while the plant is in flower, but the leave whould be sponged instead. After the flowers fade, the plant should be placed in a hot, moist house, and be thaded from bright anshinel The pring-fowering P. glumacea, and it variety, vallida, flourioh under nimilar treatment, but now that growth is completed, they hould be taken out of the warment house, in which they had been hitherto, and placed in a ahady part of the intermediate-house, there to remain till growth recommences. While at rest anficient water hould be affurded to preserve the bulba and leaver in a plamp condition, frequent ayringing of the wadernides of the foliage to ward off the attack of insect pests, being carried out.

MISCELLANEOUB.-A sweet-scented and preh dwarf-growing Orchid now in flower, is Trichoce. tram tigrinum, whose caltivation is easy when th plant is auspended in a shallow pan on the shady of the hottest house, using a very small quantity peat and sphagnum-moss, for if the roots are mit covered with compost they are apt to quickly deots and the leaves to pot in a similar manner to $O_{\text {is }}$ cidiam Lanceanam. The rare Obcidiam gattaba should be grown under exactly the ame condition both pecies while at reat requiring bat a and quantity of water at the root to keep their ham plamp.

PACHYSTOMA THOMPSONIANUM. - This another lovely little pecies that is now in blom and its flowers, if preserved from damp, will lew considerable time. It is a species that necoul admirably in a shallow pan, hung up close to th roof-glase; and it $r \in q u i r e s$ almost the same kidit treatment as the deciduous Calanthes, bat m chade than those. While in flower very water should be afforded, and when at rat tit plants way be exposed to a good deal of andijt and only juat eufficient water afforded to prem the shrivelling of the pseado-balbs. At all tin jadgment is required in watering the plant, the lidh being very liable to decay. The rare Ealol goinerni is ehould be treated in the same was.

CATTLEYA SPECIOSIB8IMA, C. LAWRENCEMI C. SUPERBA, AND C. SCHILLERIANA, DO mencing to grow, should be placed in more min growing and flowering them, it is necensary, if th apecimens are large, to stand them on inverted poly thus bringing them up towards the light, sull examples being anepended near the roof. Cath apeciosissima should not be repotted at this tul but soon after the flowers fade; but any of the ot varieties named may be repotted. Daring repotim or surfacing, care ahould be taken to make the phen ting material very porous, so that the material, mi the plants are growing, will dry quickly, cow quently stand in need of frequent applicatiom water. When watering any that are in full grom afford enough even to waturate the entire compost, and afford no more till each plant ne becomes properly dry.

## THE KITCHEN GARDET

By Johi Lambert, Gardener, Powis Cancle, Whaty
MU8HROOM BED8.-Horee-droppinge mes again be collected for making Mashroom-bedn in cover. The produce from these beds will follor from the last beds out-of-doors. If Mashroomi plentiful, and likely to be $n 0$, there is no neda for haste in the matter of preparing materiale. stable-litter should have most of the long shaken out of it, and what remains should be nim together and tarned over every fourth day, aprai it out in a layer about 1 foot in thicknest, 10 dinsipate some of its moistore and ranknest. litter from horsen fed with grasm, Vetchea, ? Clover, Furze, \&cc., in considerable quandits is of any use in Mushroom cultare.

BRUBSEL8 8pROUT8.-Another planting of usetal vegetable should now be made. Thete p will not grow oo tall as earlier plantinga, contrary chey will be aturdy and short-legg calcuated to withstand the severity of the A scin later planting may be pat out in abo weeks; these will give the latest pickring apring, and produce amall, very solid aprona.

Broad beans.-The latt sowing for the may be made about this date, preference bell, to early poddera, as Mazagan and Beck Green Gem. All of the earlier sowing ficient of tall growert, should be copp. The ficient pods are ste to form a crop.
Beans for exhibition should be thinned, learin the more promising one ; and syringe the occasionally in the evening with soot-wats ing the atems some kind of apport if they weak to atand erect.

GARLIC AND 8HALLOTS may be lifted tops show signe of decaying, spreading the thinly in the an to dry; and when dried, clean off the woil that adheres to them, them in tore.

LEEK8.-The present is a good time to pla main crop of Leeke. I alway plant two trenches, like thone made for Colery, in a trench. So cultivated, they are
as fine if dropped into holes made on the flat, partly filling up the holes when planting the Leeks with fine soil. Afford the plants a good watering, to settle the woil about the roots. The holes will be quite filled ap as time goes on by the hoeing that the land will receive. Those in trenches will be moulded up on the approach of winter.

PEAB.-The last sowing of dwarf late and early Peas ahould be made at this date ; and then, if no early fronta come to cat them off, a few dibhes of green Peas may be obtained at a very acceptable time. Afford the sowing a sheltered, warm sitaation.

## THE FLOWHR GARDHN.

## By Bailey Wadds. Gardener, Birdsall Gardens, York.

FLOWER BED8 hould be kept neat and clean by removing decayed leaves, and the old fowering truses of Pelargoniame, \&c. Edgings of Cerastium tomentosum, Ivg-leaved and Mangleai Pelargonium, \&i should be nestly pegged out as soon as they require it, so that they may quickly form a good edging. The flower-spikes of these and other variegated varieties ased for edging should be kept pinched off. Calceolariss and Lobelias should be kept thoroughly watered as long as the drought continues ; and conniderable care will be required in watering, ataking, and tying tall-growing ab-tropical plants that are used as backgrounds to clumps. The how varieties of Diblias should have the lateral shoot taken out, and the principal shoots thoroughly secured to sticks. Mulch the bed well with manure, and give liberal supplies of water. Earwige are very troablenome, and quickly deatroy the young growth and foliage if not carefully looked after. A mall pot with a bit of dry hay or moss in it makes a good trap for earwign, and it hould be examined every day. Bedding Dablias should be pegged down as soon as they require it.

PROPAGATION. \& - The layering of Carnations and Picotees should now be proceeded with, especially of varieties that are scarce, and where the blooms are not required for cutting purposes. If large \&)wers are required, take out the lateral buds, and leave only the end bud on each spike, and when the pods start to burat, some protection should be afforded against rain in the way of hand-lights or canvas on tripod. Cattings of Carnations and Pinks may now be taken and patin, six in a 48 -pot, planging them in a pit where there is some amount of bottom heat; orthe cuttings may be pricked out ander hand-lights or in framer, and kept close and shaded till rooted. Cattings atrike beat in candy loam and leaf-soil of about equal proportions. Cattings or slips of Aariculas, Sweet Williame, Pentstemons, Antirrhiniama, Paloxes, herbaceons Pansien, Violas, and Walldowers, may also be atruck in this manner.

ZONAL PELARGONIUMS.-Scarce varieties which may have been kept for propagating uses shnuld now be increased as fast as cuttings can be obtained. Place the cutting-bed on \& anny border. When wellrooted and not before, place them thickly in boxes for storing ander glase whea the time comen for oo doing. Cuttings may be taken as late as Saptember.

SEED GATMERING AND BOWING.-Seed-pod. of Auriculas, Primroses, Polyanthuses, and Pinks should be gathered as soon as ripe, sowing the seed without delay in beds or in drills 1 foot apart. Old plants of the above may now be divided, the roots being shortened somewhet, planting them afresh in mome rich garden mould. They flowering well the next year. Early-raised seedling should be planted out, taking care that they do not lack water in dry weather. Old plante of Pung, Viola, Arabir, Alysuum, Ajuga, Aabrietia, \&c., may now be divided and replanted in moil enricheá with decayed short manure, shading and watering them for a time. Affurd attention to the planting out of seedling Auemones, Aubrietias, and Wallfowern, that will bs required for planting in the autuma in the spring garden. Sow hardy annual for epring flowering, viz, Silene pendula, Escholtzia, Myosotir, \&c., pricking the ueedlinge out as soon as they are large enough to be handled.

## FRUITS UNDER GLAEB.

By Richard Parieer, Gardener, Goodiwood, Chichester.
BTRAWBERRIES in POTS-ODe of the chief matters connected with successfal calture in pots is the securing of early ranners, so that the plants may become completely established in the fruitingpots before the sutumn. It is a naving of labour to layer the runner on the fruiting pot, and
needr much care in affording water, as the soil is apt to become sour before the aeason is over, and then the plant is are to nuffer in health. I have commenced layering different varieties in amsil 60 , and everal thousand are required to cover our wants. The more promising plants will be selected as aoon an they are rooted, potting them at once into 32 ; thou which remain being planted in a well-manared border, and by keeping the flowern picked off thest plante, they will supply atrong early runners another year. Where plant for furnishing runner for forcing have not been so treated, and the gardener has to resort to the fruiting beds, it is desirable to assist the old stools with several application of manare-water, freeing the bed from weeds, and the plants of weakly and cramped growth. The mont promiving rannere should be elected for layering, the pot being stood in each alternate apace. Water bould be affurded with a rose watering-can morning and evening antil the runners are wellrooted, when they may be placed as anon a possible in the fruiting pots. It is not a wise course to starve the young plant in a mall 60 pot. The filling of the mall pote should contain a small quantity of decayed manure as an aid to root action, and to prevent the moil becoming hard. If the layering has to be done on the fruitiag-pots, these should be quite clean, and drainage good, a amall quantity of soot being placed on the tops of crocke to prevent the ingress of worms. A compost of a retentive nature is best for the Strawberry, and very firm potting should be the rule. If the loam used is of a very heavy nature, one-eighth of it balk in spent Mashroom-bed dung may be added, together with a sprinkling of woodashes, bone-meal and soot. Keen's $S$ edling is atill one of the best as a firat early fruiter, and may be followed by Vicomtesse Hé-icart de Thury, which, though mall, is one of the richent-flavoured Strawberries grown. La Groste forces well, and producee fine fruit, but the farour is not first class. Royal Sovereign, a new variety, is an excellent forcer, and will become a favourite in time. President is not grown to such an extent in pots as formerly-it is, however, a useful variety, to follow the earlier ones. Where there is accommodation, a few handreds of British Queen should be grown in pots, as these brought on alowly prodace as fine fruit of the richest flavour about the ame date an, and are preferred to, the first earlies growing on warm bordere out of doors. Jamen Veitch and Augute Nicaise are varietien which produce fruit of large sizs when grown in pots, if not forced too early, and they receive plenty of ventilation.

## PLANTS UNDIER GLAB8.

By W. H. Smith, Gardener, West Dean Park, Chichester.
TABLE PLANT8.-Small plante of various apecies for the decoration of the dinner-table, where thin kind of thing is largely carried out, must not be neglected at this season, for it is now more easy to find suitable houses for them than at some other seasons. Tae present is also a suitable season for propagating and preparing some of them for next winter. Palme deservedly rank high as table plants, and some of the bent are Geonoma gracilip, Cocos Weddelliana, and Areca Verschaffelti. Thete thould be kept in pairs in pote of various sizes, especially 60 s. Taey do well in sandy loam in well-drained deepith pots. Crotons of telling candle-light coloar may have the tips of well-coloured shoots cat off and struck singly in amall pota. Suckers of Pandanua Veitchii may be detached and potted in andy loam and peat. Ferns, in variety from sores, when potted ap, are always useful decorative stuff. Dracæna Cooperi, D. Guilfoylei, D. angugtifolia, D. terminalis, and D. hybrida; Aralia Veitchi, A. V. gracillima, A. elegantiasima, Casaarina ericoides, a particularly lightand gracefal plant, will alss be found of service. Of dowering plants that may be grown on to the flowering stage in 60' are Begoniss Gloire de Sceaux, Gloire de Lorraine, John H *al, Winter Gem, and Adonis, Gesueras in variety should not be forgotten.

LILIUM8. - These plante will require to be topdressed with rich loam, or loam, leaf soil, and dry cow-dung, placing this well up and about the atem. They will also require to be plentifally anpplied with root-mointure, and occasionally with manare-water, asy, twice a week. Place a atout stick to each atem, and on the first appearance of "由y" fumigate the plants. If a few of these are placed out-of-doors, the flowering season will be much lengthened.

CHRYSANTHEMUMB. - In case the final potting has not been done, no time should now be lost in getting the plante potted. Thowe which were cat
down early in Jane will have now grown aufficiently for the gardener to diatinguish which of the ahoote may be left, and which rabbed off; about nix boota should be reserved; pot these lat plants in 9 inch pots, and atand them on a bed of coal-ashen in full nanshine. Plants intended for the production of large flowers should be secured to stout stakes, or horizontally atretched lengths of wire placed a good distance apart. If posts or iron rode are driven into the ground about 15 feet apart, with a wire atrand along the top, the Chryanthemum atake can be tied to this, and injury by the wind effectually prevented.

BOUVENIR DE LA MALMAIBON CARNATION. The joung plants of thi variety, if they were layered as advised on p. 653 of the last volume, will now be ready for potting into 60 pots. Much care will be required in separating the layers from the mother plants, or many of the rootn will be broken off. Pot them rather firmly in a compost of loam, peat, leaf noil, and and, place them in a cold frame, and keep rather close and lightly shaded till they have pushed root into the new soil. Continue to layer shoots as the planta finioh flowering, bat reserve an many an may be required for potting on into large pote for early work.

## TEE HARDY FRUIT GARDEN.

By W.POpe, Gardener, Highclere Castle, Newbury.
PEACHES AND NECTARINEB.-Tae thianing of Peaches and Nectarines abould now be completed. Continue to stop sub-lateral shoot at one leaf, and secure the young wood by tying or nailing it an growth advancer, so ato afford the fruit the full benefit of air and sunshine. Syringe the tress frequently, to prevent red-apider finding a lodgment; an insect apt to be very troublenome under fixed glans copinge, enpecially if the trees do not get a suffi sieacy of water at the roots. Occasional soaking of sewage other liquid-manure will be of great benefit now that the fruit is swelling, but it must not be applied too strong, nor yet in driblet.

BTRAWBERRY PLANTATIONB.-As SOOD as the fruit in gathered from Sirawberry plantations, cmi off all runners not wanted for increase, together with old leaves, \&c., and clear away all straw and other molching material st the ame time. The sarface-soil should be loosened by hoeing, and if a mulching of rotten manure can be applied afterwards it will be of great benefit to the plants, in atrengthening and plamping up the crown for another season. If the beds are to be destroyed, do this without delay, so that the ground may be utilised for winter crope of Broccoli, for which it is generally auitable without any pecial preparation. Three years, or at most four, is a sufficiently long time to allow Sirawberrie to remain on the ame ground. After the third year, an a rule, the fruits deteriorate very much in aize, and consequently in weight. If runner are to be layered in pote for new plantations, they ahould be layered at once, or if not convenient to do this on the ground, very good results may be obtained by taking ranners that may have slightly roosed into the ground, potting into large thumb or amall 60 sizad pots, and putting them at once into a frame; when by keeping them clow after watering, and slightly shading for a few days, they will soon begin rooting freely, and may ba gradaelly hardened off and planted as required; mach planta anwer perfectly for mid-seaton and late forcing if taken in good time. When rooted runners are received by post or otherwise from a dintance, they should be treated in the same manner, for if ever so well-rooted they rarely make a satiofactory start when planted out without preparation. If any plante are to remain in the nureery bede throughout the winter to be planted out in the epring, they may be allowed to root into the aoil between the rows. Take them up with a trowel when rooted, and plant in rows a foot apart, and 6 inches from plant to plant. Water well, and thade alightly for a day or two after planting.

Hedysarum multijuaum.-Namerous corrempondente have written to confirm our doubt at to the identity of the plant sent from the Cambridge Botanic Garden ander the above namp, and figared in our last isaue. Mewars. Barbiers \& Sons obligingly send specimens corresponding with the figure in the Gartenflora. We will endeavour in a aubsequent issue to atcertain the trus atate of the cave.

## EDITORIAL NOTICES.

## Advertisements should be sent to the PUBLISHER.

Newspapers-Correspondents sending newspapers should be averul to mark the paragraphs they wish the Editor to see.
Local News.-Correspondents will greatly oblige by sending to the Editor early intelligence of local events likely to be to the Editor early intelingence of local events withich it it desirable to bring under the notice of horticulturists.
Letters for Publication. - All communications intended tor publication, as well as specimens and plants for naming, thorld be addressed to the Editor, 41, Wellington should be addressed to the Editor, 11 , Welwngtion
Street, Covent Garden, London. Communications Street, Covent Garden, London. Communications
should be WRITTEN ON ONE BIDE ONLT OF THE PAPER, should be WRITTEN ON ONE SIDE ONLY OF THE PAPER, sent as early in the weet as possible, and not be printed, but kept as a guarantee of good faith. The Editor does not undertake to pay for any contributions, or to return unused com munications or illustrations, unless by special arrangement.

APPOINTMENTS FOR THE ENSUING WEEK.
MEETING.
gaturday, July 13-Royal Botanic Society.
SHOWS
aturday, July 13 \{ Wood Green Horticultural, Galashields Horticultural.
WEDNESDAY, JULy $17\left\{\begin{array}{l}\text { National Rose Society, at Derby; } \\ \text { Waterford Horticultaral }\end{array}\right.$ THUBSDAY, July $18\left\{\begin{array}{c}\text { Halifax Rose, Canterbary (Kent) } \\ \text { Hoopital Fête. }\end{array}\right.$

## SALES

tuesday July 16 Imported Orchids, fiom Measrs, Hugh Low \& Co., at Protheroe \& Morrie Rooms.
FRIDAY, JULY $19\left\{\begin{array}{l}\text { Imported and Eatablished Orehids, } \\ \text { at }\end{array}\right.$

CORRECTRD $\triangle V E R A G E$ TEMPRRATURE FOR THE ENSUING WEEK, DEDUCED FROM THE OBSERVATKONS OF FORTY-THRER YEARS. AT CHISWICK.-63.4.

National Rose
Societris Rysis
society's KIh Glousester.

The first of the three exhibitions of the National Rose Society was an unqualified success. For many years the National held two exhibitions, one metropolitan and the other pro-incisl. A few years ago, however, an attempt was nade to hold an earlier show of Teas and Noisettes in conneotion with the Royal Hortioultural Society at the Drill Hall, as it was urged that the best blooms of these classes were past before the Crystal Palace show came on The attempt was not a very successful one, and it was ultimately determined to supersede it, and to have three general exhibitions-Metropolitan, Northern, and Southern. Previons to this, Glonoester had asked for the provincial show to be held there, and the request had been aooeded to. But then came the tempting request from Windsor to hold the first southern show there; and the fact that the show was to be patronised by Royalty, induced the committee to ask Gloncester to waive its claims for another year. It was, perhaps, an advantage to them that they did so; it gave all conoerned more time for maturing their plans. The place was convenient, the tent an admirable one, while the courtesy and kindness of the secretary, and the hospitality of the Mayor and officers of the local Society, made everything move with the atmost harmony.
There are two classes of persons who visit exbibitions of this kind, those who are captivated by the brillianoy of the show who are perhaps ignorant of its real character, and therefore view it with an uncritical eye; to them the Roses are perfection, and they cannot understand how any fault oan be found with them. There are those, on the other hand, who are hardened, so to spealf, by the exhibiting of twenty years or more, and whose judgment is not influenced by what first meets the eye, but by a comparison with the results of former
years; they:may be at timesteracting, as when someone says.that is the finest bloom of Horace Vernet that ever was seen, they quietly add "but don't you think the color $\mathbf{r}$ is a leetle gone?" Beautiful and bright as the Roses were on this occasion, they were perhaps somewhat wanting in size and solidity. There were no exceptionally grand blooms, and when one considers the terrible winter through whioh Rose growers have passed, and the long drought of the last two months which has so disappointed the hopes of gardeners and farmers, it is marvelloas that on such a day blooms of sach freshness could have been shown, more especially when they have had, as in many instances, to make a night journey on such a close and sultry night as that which preceded the show.
There has seldom been a more close contest than that which took place for the 5 -guinea oup presented by the High Sheriff of Gloncester ; and when ultimately the prize fell to Rev. J. H. Pembrrton, no doubt could exist but that it was a hard fought and well won victory. The details of the fight were given in our last issue.
In auch a season it was not at all likely that blooms of surpassing excellenoe should be seen, none oonoerning whioh yon would say to a brother rosarian, "Have you seen Smith's splendid bloom of Marie Baumann, or Jones grand Catherine Mermet?" and hence it happens that peculiar interest attached to the seleotion that would be made for the best bloom in the respective classes. Now, it very often happens that in the great race of the Derby the favourites on whom long odds have been laid are nowhere, while an outsider carries off the ooveted prize Last year at the Crystal Palace, for instance, Marguerite Bodet carried off the silver medal in the amateur's olass for Dr. Budd, and this year an equally little-known rose did the same for Messrs. Harkness in the nurseryman's class, for few poople have heard of the Rose in question, Comtesse Ludre; this is a bright carmine red Rose, which was sent out by Eugenne Vradibr fifteen years ago, but has never, so far as we know, been exhibited before, and yet although there were fine Roses of well-known varieties, the coveted prize was awarded to it.

The curiosity which is always active as to new Roses was not destined to be gratified at Gloucester; there were no seedlings exhibited for oompetition for the gold medal for the best seedling, and amongst new Roses already in commerce there was hardly anything that merited special notice.
A beautiful yellow Rose was exbibited by Messrs. Jeffribiss \& Sons, of Cirencester. it is a seedling between Cloth of Gold and Maréchal Niel, a beautifal soft yellow with good glossy foliage, and stout foot-stalk, more resembling Cloth of Gold than Marechal Niel. The severe winter of last year tried it very muoh, but it is to be hoped that the raiser may be able to bring it forward at some later show; it is of rampant habit, and should it fulfil its present promise will be a valuable addition to what are called our climbing Roses.

Whatever interest may be taken in other exhibitions of Rose Societies throughoat the country, there oan be little question that they are all eolipsed by that taken in the great Metropolitan show held by the National Society at the Crystal Palace. Whatever doubts may have existed as to the saggestions by which amateur exhibits were regulated by the number of plants grown, it is unquestionable that though it may not have realized what some expected, it has given a stimulus to Rose exhibitions.

Everyone must have been struck by the immense improvements which have taken place in the arrangement of the show under the direction of the Garden Superintendent, Mr. W. G. Hrad Instead of the long formal line of bozes stretch ing from end to end of the transept, the exhibition was broken up into groups containing a few olasses, and this, as the bores were mingled with growing plants, no: only gave a pleasanter aspect to the exhibition, but also enabled visitors to move about $m$ rre freely, so that it was possible at any time during the afternoon to gtt a sight of the flowers.
Conjeotures, anticipations, and opinions have been freely indalged in, and as asual some of these were right and some wrong; thas, it wu generally thought that it would not be a firto rate exhibition, and this, we think, notwithstanding the fine blooms exhibited by some growers, was the true state of the case. The flowers in most instances lacked substanoe, and, consequently, staying powers, those that wene groxn on heavy soils atanding best. It was alo expected that, owing to the character of tha season, the northern growers would stand the best chance. It will be seen that this was ab the oase, the ohief prizes both in the nursermen and amateur classes going to soathen growers. In comparing it with the exhibi tion held at Gloucester, the verdiot we think would be that the Teas and Noisettes wer better at the provincial exhibition, and the hybrid perpetuals at the metropolitan. A happens most times at a great show, the amateurs are fully abreast of the norsery. men in the excellence of their exhibits, and in faot the stand of Mr. Lindskil's, in the Trophy Class, would, if there had been such prize, have been awarded that for the best bor in the show; it contained some grand blooms the colour and freshness of which at ssonh season as the present were remarkable. It coontained, moreover. a flower to which the Silver Medal of the National Rose Society for the bat hybrid perpetual in the amstenr classes ns warded; and it is somewhat remarkblil that the award for the same prize in nurseryman's olass was given to the sus flower in Mr. B. R. Cant's stand. No outside this time oame in to carry off the honours, wil it is tolerably olear from the number of bloom erhibited and their excellence wherever shom it must be regarded as "Her M"jesty's" getr One could have anticipated that it would hare been just the year for Comtesse do Nadillec bat it was not so; very few good blooms of it wore staged as far as we could see, and the Tea Rose which seems to have come out mo conspicaously was Madsme Cusin; for whenere shown, it had a richness of oolour quitt ets ceptional, and indeed, in one instance, mbero one of our most experienoed growers had at a grand bloom of it for his box, he would ab sllow it to be staged, becanse he oonsidere it out of character.

It was anticipated that garden Roses would b somewhat deficient, and this proved to be oase. A most beaatiful colleotion which won tix first prize, oame from Bath, and another from Dandee. In the same way, new Roses were m plentiful, and of these none of those from blowit seemed to attract any attention; neither wis ther anything very striking in the absolutely $D$ Del Roses, namely, those which are not in merce, and were exbibited for the Nation Rose Societys Gold Medol. None of was adjudged worthy of the Gold Medsl. two exhibited by Messra. Dresson (one ras similar to The Bride and another a pink were highly commended; Mears. Coorm

Bladna is a large Rose, very fall, somewhat in the style of Merveille de Lyon, but higher in the centre, but the texture of the petals was somewhat thin; this may have been owing in some measare to the season. Mr. Winl Tay-
and East Anglia has claimed the palm in the contest; rarely has greater pleasure been displayed among all classes of Rose growers and Kose exhibitors than when it was announced that the old warrior, Mr. Ben Cant bad again

Mr. F. B. Lindseli carried off the Challenge Trophy with a boy of blooms, which, as has already been said, might be justly termed the best in the exhibition. Mr. O. G. Onrus, from Colchester, carried off the Tea Tropby


Fig. 8.- catagetum tabularb, variety mhinophorom: colouns aremxhe brown. (ant p. 44.)

Lor's was a high-coloured Rose, very sweet and promising, but anfortunately he had not complied with the schedule, thus the two exhibitions of the National Rose Society have passed withont any additions to our Gold Medal Roses.
With regard to the ohief honours of the day, they have followed, as far as nurserymen are concerned, the oourse of the last couple of years,
carried off the Trophy, together with the Gold Medal that acoompanied it; while, as we have already said, the best blooms of H.P. was found in his box, for which be gained the Silver Medal. Mr. Franic Cants flowers were also exceedingly good, while Mesars. Prior \& Son showed that they were determined to huld the place they had of late years aspired to. In the amateur classes,
as well as other pieces of plate. There were upwards of 100 extibitors from all parts of the kingdom, and this it must be remembered is a very different thing from an exhibition of Cbrysunthemums or Dahlias-you may stage both of these the day before in the stands in which they are to be exhibited, and the probability is, that unless some extraordinary mishap overtakes them, they
will be exhibited as they left their owners' garden; but not so the Rose, the long railway journey, or hot nights, may shatter half his blooms, and consequently he mast bring with himia box of what he calls "spares," of ten containing twice the number that he actually requires, and with which he can replenish his bozes on the morning of the show. It is this enthasiasm which tends to keep the National Rose Society alive, and every year to extend its operations.

Catabetum tabulare, Lindl, var. rhinoPHORUM, Rchb.f.-The apecies is one of the most interesting of the carions genus Catssetum, and the interest in it curiously-constructed flowers is still farther heightened by their extreme variability both in form and colour. The type was described by Lindigy in 1840 , and since that several distinct varietie have been recorded by the late Professor Recchenback in the columns of the Gardeners' Chronicle, three of the most distinct being one with greenish flowers, slightly blotched with light parple-brown; C.t. brachyglossum, which bas a shorter lip and mach broader callus than the type; and C. t. rhinophoram (described in the Gardeners' Chronicle, p. 358, Sept. 18, 1880), of which the author eays, "the whole surface of the callas is broken in innumerable, irregular, transverse-toothed lamelle, of white coloar, with spote of 'burnt sienas,' thus making one think of a file-hence the name." The striking feature in Catasetum tabulare is the broad, fleshy table-like callus which occapies the greater part of the lip, the toothed or bristled margin of which is curned up around the raised table, thus forming a gallery which traverse how he may lead the ingect promenader to the setæ, which apring and release the pollinia. The colour of the large raised csllus is asaally white, and its surface is generally mooth, but in the instance illustrated it is rough and like the other parte of the flowern spotted with red-brown of various shaden. The Catasetums are fast increasing in favour in Orchid collectiong, and as a consequence their habite and requirements are more closely observed than formerly, and their caltare in now considered nimple, if they be treated like other Otchids which lose their leaves and require a drier and cooler situation during the resting season. The plant from which our illustration (Gg. 8) was taken was exhibited by Memers. J. Veitch \& Sons, Rayal Ezotic Narsery, Cheisea, on June 25 last, at a meeting of the Rojal Horticaltural Society.

Blanchina, - The annoancement that Mr. Francis Darwin was to lecture at the Royal Horticultural Society aroused much interest. Mr. DABWis was associated with his father in carrying out many of those experiments which have proved so ntimulating and suggentive. Oa this occavion he chose for hil abject the changea in form and atructure connected with blanching or etiolation, and he showed that these changas are not to be conmidered of a pathological nature, but are the resuit of edaptation to adverse cireumatances. The lecture was very clear and concluvive, bat more fitted for the Scientific Cummittee than for the miscellaneons groups that constitute the " 3 o'clock meeting." The pablication of the lecture in the Journal will be
awaited with intereat.

The Royal Gardenerg' Ofphan fund.The unal Rose Fair in aid of the Royal Gardeners Orptan Fund, was held in conuection with the Croydon Horticultural Society's show on Wednesday,
Jaly 3 and the amonnt taken for the alle of flowers Jaly 3 , and the amount taken for the sale of flowera
was $£ 71680 \mathrm{~d}$. Aroong the contributore of bloome were Mesars. F. SANDEse \& Co, Huger Low \& Co., Lateg \& Sons, B. Cant. T. B. Haymood, H. V. Macain, M. Hodason, E M. Betrone, W. Mase, C. J. Saltri, J. Slater, C. Lake and Riv. J. H. Psubburon. Mrs. W. Guwnes again kiadly under-
took the ale of the flowern.
Gardeners' Royal Benevolent ingtitu-
tion -The Wor hipfal Company of Skinnera have
given a donation of $£ 1010$ s, to the funds of the Gardeners' Royal Banevoleat Institution.
"Dictionnaire Pratique d'Horticulture et de Jardinage.-The French translation by M. Mottet, of what has coms to be known as Nicholson's Dictionary, has now reached its 39 .h part, which brings the work up to the letters Met. The tranalator has added to the original text, and enhanced its value. Additional illastrations are alno applied.

Stock-taking: June.-Every day's experience in the matter of actor-taking tends to convince us that Pope, in his "Esasy on Man," hit the mark when he wrote "Man never is, but alwaye to be bleat," for have we not been looking forward, not to a rush, but to a gradual rise in the values of both imports and exports-and have we not been doomed to a partial disappointment? All was going on nicely, when on came the Whitaun holiday! and a parliamentary dislocation, and over go our calculation. Bat the fall this month is not a very large one, $£ 345,095$, or about 1 per cent. as compared with the Retarns for Jane, 1894. Here is our unual extract from the Summary of Imports:

| Tmports. | 1894. | 1895. | Difference. |
| :---: | :---: | :---: | :---: |
| Total value of imports | $\underset{34,229,579}{\ell}$ | $\underset{\substack{\mathcal{L}, 884,584}}{ }$ | $\frac{\boldsymbol{x}}{-345,095}$ |
| $\begin{aligned} & \text { (A.) Articles of food } \\ & \text { and drink }- \text { duty } \\ & \text { fron } \end{aligned}$ | 13,414,987 | 12,585,318 | -829,669 |
| (B.) Articles of food and drink-dutiable | 1,439,023 | 1,551,788 | +112.785 |
|  | 4,390,045 | 5,219,880 | +829,835 |
| Raw materials $\begin{gathered}\text { fundry } \\ \text { and mastries } \\ \text { and manafactures } \\ \text { ind }\end{gathered}$ | 4,383,931 | 3,676,176 | -688,755 |
| (A.) Miscellaneous | 1,110,635 | 1,213,218 | +103,583 |
| (B.) Parcel Post ... | 98.808 | 70,371 | -26,435 |

Wheat has increased by 334240 cwt. over Jane last jear, bat this has had no effect on the price of the loaf other than to raise it : the price of Wheat on the market has gone ap some 6s. in about as many weeks, and it would be intereating to note what the changes (and charges) have been during the past hundred jears, bat space will not permit. Tea shows a rise of £79,000, and $£ 95,000$ in coffee; spirite have gone down by $£ 60,000$. Other food supplies fell off some $£ 830,000$. Oats gained £144000 from Russia; cheese shown a reductionthough the arrivals from Australia bave nearly doubled. Batter from Autrasasia has gone down in quantity - also from France and Denmark. Timber shows a reduction of $£ 780000$-last year' imports for the same period baing exceptionally beavy. Textile materials were $£ \star 30000$ over June, 1894; cotton went up £293.490; while flax increased by $£ 266,405$; wool went up $£ 170,000$. Manufactured articles, mainly ailk stuffs from France, show an increase of £233,153-but leather and woollen manufactures font up for aboui a third. Fruits, \&ce, now claim attention, and here is our uaual excerpt :-

| ImPORTS. | 1894. | 1895. | Difference. |
| :---: | :---: | :---: | :---: |
| Fruits, raw:- |  |  |  |
| Apples .** ...bush. | 38,198 | 50,558 | +12,360 |
| Cherries ... ... | 193,231 | 115,670 | -77,861 |
| Plums .e. .** | 3,731 | 4,660 | + +929 |
| Pears | 157 | 13 | +929 |
| Grapes | 4,006 | . 13 | -144 |
| Unenumeratod | 245,897 | 155451 | -1 |
| Onion* | 328,548 | 318.021 |  |
| Potatos ... ... owt. | 1,251,283 | -8,021 | $-10,527$ |
| Veretables, raw, unenn. | 1,20,203 | 951.735 | $-301,528$ |
| merated ... ... value | $170.5 .50$ | $\stackrel{e}{199,746}$ | $\begin{gathered} e \\ +29,106 \end{gathered}$ |

Soms of these figure are well worth noting. To pase, it may now be agreed that the new Manchaster market is a success ; in one day 300 tone of foreign fruit were put up to auction, aold, and despatched to their final
was done with some 14,000 package of frait, and we are informed that a new line of ateamers-the Gaelph - will be placed on the Australaian line, for the carriage of agricaltaral produce to Manchester.

## The Exports

foot up at $£ 17,800,100$-a decrease of $£ 109,055$, Uader the hesd of " manufactured articles," there is a gain of $£ 485,000$, of which $£ 333,000$ is due to arms and ammunition. Metals went down £245,721, telegraph-wire figaring for nearly all this amount. Cotton goods fell off considersbly, but linens went up -America also baying largely in the woollen and worsted department. Cosls fell off to the amount of £123.729. Manare fell away to the value of nearly £75,106. The exports for the six months anow a loss of $£ 106,117,516$-the decrease being $£ 765,959$. We can only hope for improvement in our next report.
"The Botanical Magazine" for th9 present month contains description and coloured figures of the following plants :-
Senecio Hualtata, Bertero, t. 742. - A noble Senecio from temperate Chili and Argentaria. It is a tall herbaceoas plant, with bold cordate-oblong leaves, somewhat woolly and a branching inflorescence, bearing numerous cream-coloured flower-heads, each about 1 inch in diameter. It is hardy at Kow, and flowered in that establishment in Jane last. It is allied to S. sagittifolius, already figured; the apecific name is an adaptation of the appellation generally given to the plant by the Chilians.
Pyrus C'rateyifolia Targioni, Tozzatti, t. 7423.An Italian apecies, having more the appearance of a Cratman than of a Pyrus. The leaves are like those of P. torminalis, but the inflorescence is lax, and the pedicels long and alender. Kew.

Aristolochia ungulifolia, Mastera, t. 742t.-A curious Burnean species, figured in these pages, 1880, vol. ii., p. 116 . fig. 28.
Newwiedia Griffithii, Reichenbach, t. 7425.- A highly interesting plant, linking Occhids to Irids. The leaven are plicate, and the numeroun white flowers borne in long erect dense spikes.
Rubus lasiostylus, Focke, t. 7426. A Chinese apecies with pinnate leares, nowy-white beneath, the nerves beligg of a pink colour. The flowers are in loose cymes, each about 1 inch in diameter parplish. Hardy at Kow.

Messrs. W. P. Laind \& Sinclair.-The annal outing of the emplojér of thi well-known firm of nurserymen at Dundee, was heid at Glamis Castle, on Wednetday, 3rd inst., 2 very enjoyable day being apent.

Ealing Horticultural Society. - The annual show of this Society took place on the 3rd inat., in the beautifal grounds of Gannerbbury Park. The number of exhibite was not no large as avunlin fact, the showe of this Society do not compare favourably for some reason with its earlier exhibitions. In the principal class for a group of plants arranged for effect, the saccessfal exhibitors wers Mr. W. Roberte, gardener to J. Harris, Eiqq, Braemar ; and Mr. Long, gardener to E. P. Oakshott, Esq., Orchard Dene. For twenty-four diatinct varieties of cut Roses, the 1et prizs (only entry) was awarded to Mr. C. Tarner, Slough. A good competition renulted in the prizas offered for eighteen Roses (not fewer than twelve varieties); lat, Gold Medal of the National Roee Society, Mr. El wards, gr. to W. O wen, Eqq; 2ad, Silver-gilt Medal, $\mathbb{N a t i o n a l}^{\text {Rose }}$ Society, Mr. C. Long; $3 \cdot \mathrm{~d}$, Silver Medal, National Roae S.riety, Mrs. B Boseg; 4;h Bronze Medal of National Rose Society, Mr. S. Lowe。 An excellent dieplay of garden produce wae made bs the cottagers of the district.

Paactical Gardenina in Egypt. - Mr. Waitre Drapirr has been giving a course of lecture: at Ramleh on this mubject. The lectares treated of the following matters : Botanical clasification of plants, climate and soil, trees and Palme, arrangement of a garden, the planting of shrabberies and borders, lawas and flower-beds, climbiag plante, plants for windy and sheltered positions, Rosea,
annuala, hedges, conservatorien, specimen isolated plante, water-gardening and aquatice, potting, balbs, Chrysanthemums, Cactus and succulents, garden economic plants, Vines, fruit-trees, praning, grafting, and propagating. Mr. Deaper, who is an old Kewite, has been appointed director of the government gardens at the Barrage, near Cairo. A book on Gardening in Egypt may shortly be expected from Mr. Draper's pen.

Orchid Hybrids.-We learn that Mr. Hansen's complete list of Orchid hybrids is in the press, and will shortly be issued.

The Cotton Plant ie losing ites popularity as a "safe inventment" in the very heart of the cottongrowing States of America. Time was-some forty years since-such an assertion would have been laughed at. "You cannot do without American cotton" was the article of faith set up by growers and brokers on the other side of the Atlantic; starvation in Lancashire during the cotton famine shook the belief in many minds, and alterations in apinning and weaving machinery broaght ander anbjection cotton of short staple; planters and capitalists took up the caltivation of the plant; and to-day, Lancasbire is no longer dominated by New Orleans or New York. But planters in the Southern States kept on; and in the face of a steady fall in pricen, opened up all over the world a market for cotton seed, cotton oil, and cotton cake. Of course, the same products can be placed on the market wherever cotton is grown, and capital can be utilised. Should it be desired to learn where cotton is grown at the present time, the intelligence can be had from the " market" columns recording sales in any daily paper any morning in the week. And it has come to pass, that it has been determined to reduce considerably the growth of cotton in America. The renalt of the special investigation set on foot by the Federal Goverament's Agricaltural Department in 720 Cotton-growing counties in the United States shows that in eighty-eight there will be little or no change in acreage as compared with 1894 ; five report an increase up to 10 per cent.; two, an increase of from 11 to 20 per cent; three an increase of from 21 to 30 per cent. ; and three an incresse of over 30 per cent. ; 127 show a decrease of 10 per cent. and less ; 250 a decrease of from 11 to 20 per cent.; 158 a decrease of from 21 to 30 per cent. forty-four a decrease of from 31 to 40 per cent.; seven a decrease of from 41 to 50 ; and thirtythree a decreane of more than balf. This decrease in acreage is not confined to any particular locality, but covers a widenpread territory, embracing almost the entire area devoted to Cotton cultare. The extraordinary low price of the ataple gave rise to the agitation as to the necensity for reducing the acreage in $1 \varepsilon 95$; this resalted in a convention this year, and a rise in prices is hoped for. Doabtleat, mach may be done in improving the varieties now grown, and so placing on the market the higheat class of raw material. Meanwhile, the above noted fact are aurely well worth record.

Pelargonium Sport.-Mr. Walker, of Wellfield, Leyland, sends us a truse of a very pretty fleah-coloured or rosy-pink variety of Pelargonium, which originated as a aport from "Mr. Povis." The flowers are very double, no that the aport neems well deserving of propagation.

The international Fruit, Wine and Vegetable Exhibition at Berlin.-This exhibition, as we learn from nin official announcement, which is to form a part of the more permanent one of the National Hygienic Society, will remain open to the public from Jaly 1 to some date in September, It will be held in the old Reichatar buildinge, which have been lent by the Prumian State Government for the purpose. The exhibition has created very general interest both in Germany and other countries. It will not be of the asual kind, as may be gathered from the programme, which farthera neither the interents of the producer nor of the consumer. On the contrary, it is intended to entablish a well-
organised agency, whereby producer, and seller, asd the wholesale bayer will be brought together to their mataal beneit, and that of the German people. Au addition is made to Rale 13, which will make it possible for a visitor to the exhibition to take out the value of his entrance money in exhibited articlep, by which it is hoped that the namber of visitors may be increased at the same time that the extibitor will be enabled to sell his good more freely. Articles which are periabable, and which have not been aold by the exbibitor, will be wold regularly at public auction, for the bentit of the latter. The exhibition will serve, not only as a means of disposing of goods according to sample, bat also an a market where the finer sorts of vegetable, Grapes, and conserved goodp, wine, \&cc., can be ordered from the producera, and the carriage of the ame by railway or post arranged for. Prospectuses and forms of application will be sent, post-free, from the office of the Iaternational Hggienic Exhibition, Berlin, W. Leipzigerstrasse, 4, apon application.

Oxford University: Mathematical Honours.-Many of our readers will be pleased to hear that Mr. J. Hodson's son has just paased the final pablic examination (Greats), taking first-class honoars, thus repeating his anccess of 1893, when he took first-class honours in the first pablic examination (Mods.). He proceeded to his B.A. degree on Saturday last. He holds a scholarship at Jesus College, the said acholarship being renewed for another year, in order that he may take acience as an additional subject.

John Wills.-As we go to press, we hear with great regret of the death of this prominent horticulturist on the 9th inst. Mr. Wills was in his 64 th year, and had been affering from illnens for a long period. In our next insue we ahall allude more at length to his work in horticalture.

Caution.-The following letter telle its own tale:-Dear Mr. Cannell, There is a ratcal going about representing that he travel for you, and is selling to the unsuspecting people awfal rubbish. He called here, of courae after I had gone to town, and perauaded my wife to buy some wonderfal Carnations, \&c. The enclosed is the reanlt, and they are all the name. It in ratter clever to get s lot of label printed, and then state that be represents a man so well known as yourself. H. P. B., Solicitor." One of the labele reada "Malmation, ailvery edge Clove," the other "Turner's Maaterpiece." The specimen encloned was valuelens.

## PLANT PORTRAITS.

AMORPIA Carescens, Mchans' Monthly, June
Cannas.-1, Saraf Hill, zed self; 2, Maurick Mussey, orange-pınk self, Garden, June 22 .
Dendrobium vobile sobilius, Illustration Horticole, June 30.
dipladenia atro-purpurea, Illustration Horticole, t. 33.
Huernia marocarpa, Schwernfurth, Gartenfora, July 1 , . 1418.
LoTUB peliorgincus, Revue Horticole, July
Lupinus arboreus, Gardex, June 8
Rudbeckia maxima, R. Pinnata, Garden, June 13
Sfringa vulgaris Madame Lemoine, double white, Reore de 1 Horticulture Belge, July

Thuybergia grandiflora, Illustration Horticoic, t. 32.

## Home Correspondence.

THE 8LEEPY DISEASE OF TOMATOB.-Dae prominence has been given in your leading columns to the prevalence of the so-called "sleepy disease" in Tomatos, and to the canse thereof. I am a grower of this frait for market of near apon a quarter of a centary's experience, and my daily occapation from early morn till darkness sets in is amongst the plante I therefore claim to have ame little practical knowledge of that particular crop. Moreover, I have been sorely troabled and annoged with the "sleepy disease" in question, hence the article anent the same intarented me greatly. For the past eighteen monthn I have visited many gardenc, collected information
by means of the local prest, and experimented with a viem of finding oat the cause of thit myateriona diseare, and at lant I ventare to think I have solved the problem-at least in my particular case-though I may say not in tha direction of that ett forth by your correspondent in the article on the su' ject in question. I have no heritation in easing that this diesese is not in all casea due to the fungus Fasarium lycopersici', or any other of that natare. I certainly do believe that if sach did really exist in the soll the plants would go sleepy, but in my case after several minute examinations lat year of every pait of the roots, at also the soll, I came to the conclusion that fungus was not at the botsom of it. Moreover, there is no dirculoration of the leaves or stem, no "delicate white bloom;" after a time, in fact, with the exception of the droopiog of the leaver, the characteristics are distimilar to that described in the said article. With a view of howing that fungi were not present in the inatance which have come under my notice, I will just atate that, say two plants planted in a box or put, one will go off, and the other remain healthy and froitful to the last. As recently as last week a large plant in a box with frait of half size showed signs of drooping it was at once pulled up. The soil was worked ap, no fresh aoil being added, and two young healthy plants pat in. $\Lambda$ few days after, the surface was covered with white rootlets. This is but one inatance as I have had many auch, though I generally nae freab soil; but after reading your article, I thought I would teat $i t$, and prove conclasively whether the soil was at fault or not. Well, I really and fally belteve that no more of this eleepy disease will ever trouble me, and to prove the same, I have with my own handa, and on the gyatem which I will a little later on make pablic, planted a a late 90 -feet honse with 300 plants as an experiment. They are now swelligg their first trusee, and if no plante flag or droop by September 1, I shall have the satisfaction of knowing that the investigation I have made have not been in vain. I should say that the house that I have planted had many cases of this "sleepy disease" last year, and the noil is the sama. no this will be a sare teat of the fansue theory. P.F. Le Sveur, Grand Vale, Jersey, June 23.
hYBRID POPPIEB. - In the Gardeners' Chronicle for June 15, Mr. W. Wilke asys he does not believe there has been a true hybrid between a perennial and an annual Poppy, Like him, I heve been trying to crose Poppien, and I have succeeded in crossing the doable- fowered annual Poppy with the orange nadicaule Poppy, which is a perennial. The doubleflowered annual variety was the seed-bearing plant, and I have about twenty seedlinge, but only one has come with foliage and habit very much like nudicanle, and that only has flowered; the flower is the same shape as nudicaule, bat a brick-dust red, quite diatinct from nadicaule. The foliage has the glaucous shade, but not so mach an the annual Poppy. The other aeedinga which retemble the annaal are not yet in flower, but they will open in a few days; they are only about 9 iaches high, and I do not think that they will grow any higher, although they might do so another season, as they have only received two waterings this season, and no rain bas fallen here since she end of March. As I have been crossing flowers and vegetables for several years, I have a fair idea of what a true crons should be. J. Lansdell.
collogyne cribtata in a wire babket.-I enclose herewith a photograph of Coelogyne cristata grown in the connervatory of E. Wells, Esq., Wallingford, which will serve to show how admirably adapted this popular Orchid in for caltivation in wire baskets, and as a hanging plant generally. This apecimen has been two years in a 7 -inch baket, and has borne over 300 blooms this year. Its ivorywhite blonoms were most acceptable early in April and May, and as ite cultivation presents no difficulties, the Coolopyne is a most useful and attractive plant for suspending from the roof of a cool conservatory. Arthur Cooper. [An evidence of very accenfal caltare. Eo ]
young gardeners and whitten characTERS. - f think young men have one great grievance to contend with, and that is being compelled to leave a place without a character, when no reason can be given for refuving to give one. I do not think I can do better than state mpow case, which will help to how what I mean. For the past fifteen monthe I have been employed as a journfyman at a certain place, and I have done my atmont to aphold the good testimonials which I have received from previous employers. This apring I leciderl on making
a move, and asked the hoal gardener if he would yet me into a narsery. His answer was "Nu." Laser on, upon my leaving the place, I asked him tor a character, which ne also refused to give me, With the resait that I had to turn out, and I am now filteen month to the bad. Now, what I wish to know is, if ach a thing ought to be? I think it is acandalous that young gardenere should be oo treated; and was is more trying to anyone than to know that after having done his daty, a "character" is denied him? If gardeners woald only act up to the motto, "D , unto oshers sou would have them do anto you," it would wave a grest deal of needless misery, besiden giving young men much needed eacouragement. H. M. C.

TOO MANY PAN8IE8.--It has been said with some trutb, that we have too many Panier, and too few reully good ones. I have jast opened the catalogua of a noted Scoteh floriat, and I tind is containa 344 ahow varieties, selfs, yellow grounds, and white grounde; sad including ten new varietien offored this season for the first time, enumprates the enormous number of 434 fancy varieties. Really this is smple proc $f$ that there are too many Panaies. An examination of other catalogues would no doub: show that it would be posible to make up a list of 1000 assumed distinct varitien of Pansien. As to how many really good ones could ba aslected from the liata I cannot ventare to eay, and I think it is doubtfal if any abstantial advance has been made in Easligh ahow Panaie during the last twenty ypart. Tae fass is, the ahow Panay is so clonely restricted to a few typea that repatition is inevitable. In the case of the eelf, the colour should be as uniform as possible, whether dark yellow of primrose, or in the case of the white aelf, excepting the central blotch, the absence of colour. The dark eelfa admit of considerable variation from the deepest velvety maroon and velvety black, through bright claret, crimson, pale claret, mulberry, purple, and shades of vio'et to the paleat tint; the yellow salfe vary a little in colour, the pricurose selfs lest, the whites differ in parity. Of courso, thone who are intimate with the varieties see wall difforences which eacape the eye of the casual observer; atill, in nuch numbers there must be conoiderable resemblance. Taicknent of texture, circularity, flatnena, moothness on the edge, and the denaity and symmetry of the blotch, are the leading qualities. In the case of the dark selfs where the blotch is not clearly dofiaed, there is yet a small eye jast above it, and the clearness and vividness of the eye imparts life and light to the fower. Taere is great refiaement in a stand of twelve or twenty-four show Panaies when the blooms are approximately perfect, frenh, bright, even in sizs, displajed well on the stand, and arranged-selfo, yellow grounds and white gruands- 30 a to affurd the most effective contrasts. Mach art and cultirated taste can be displayed in settiag up a stand of show Panies in the beat manner, more, perhapa, than ia the case of any other exhibition florists' flower I am açuainted with. Tuat the Ea,lish sho Pansy has greally declined as a caltivated fower in the southera parts of the country is abundantiv sho wa at the exhibition of the Pansy and Violet Suciety, for very few are seen there, and thone exhibited are brought up by the northern and eapecially by the Scatch floriste. Years ago Hammeramith and other abarbs had their Panay showf, and many grew for competition. There were no fancy Panuies in those days, and the Viola, at we now know it an a bedding plant, wae undreamed of. Then cane that balsful time-more than a generation ago - when a kind of disease infeated the show Panay, and mede it in southern parts extremely difficult to cultirate the sho Pansy for any parpose, and the area of cultivation becme greatly circumacribed, till it has become largely a midland and northera flower. We wat a revival of the show Panay; whether the Pansy and Viola Society will bring it about remaing to be seen. The advent of the fancy Pansy came at an opportung time. Having more tenacity of life, being more vigoras in growth, and hardier in constitution, it moon won ite way into popularity. Untrammelled by the divivions of type which fetter the nhow varieties, it admite of great variation in colour and combinations of coloar; bat aixg of flower, stontness of textare, moothneas, circalarity, harmony in and brillisncy of colours, are all qualities for which the rainert atrive. Bit there is jet a great amount of similarity in atand of twenty blooms of distinct varieties, though there is enough of variation to admit of tharply-
defised distinctive lines, bus yet not to astertire
and welf evident as in the case of the show varieties. But a list of 500 so-called distinct varieties is aomewhat appaliing. Oae-fourth of this number would be more than ample, and yet addition is much more certain than reduction. It is now a good time to sow some seeds of Panaies for ammer and autumn display. Though seed of fias strains of the show varieties is not plentiful, still. with due care, it can be procured. Strains of fice typer of fancy varieties are more plentifal. Syad sown in pase or shallow boxes in light friable soil, soon germinate in a gentle warmth or when kept close in a cold frame. If pricked off iato other boxes, the ssedlings 80 )n grow into sizs for planting oas, and if care'ully movad with som 3 aoil adhering to thair roote, quicklv eatablish themselves. Oue secret in succassfal Pansy and Viola growing daring sammer, is to have a layer of good manure a little way below the roots, and given eppropriate soil and an open apst, the Pansy will atand a chance of bsing seen ats its beat. R. D.

ONIONS.-The growing of Onions to a largn siza is considered by some pardeners as a great achievement, although they are ananimous in stating that big balbs are neither economical in the using, or long keepers. An Oaion that measares 9 inches to 12 inches in circamference will remain longer ia good condition then one of 15 to 16 inches, and the former will be lear ready to start into growth in the spring. At the middle of May this year I had a fine los of Oaions hanging ia a cool-house, which had basn hard frozan for a period of two months. The Oainns of globalar form, viz. Allea Craig, Cranston's Escelsior, and Brown Globs, were rood till the present month. Tu meet all wante, it is my practice to grow Potato-Oaions and Shallots, and to plant a quantity of bulbs which are leas: likely to keep late, early in the spring, on land that is in the shade. B, this mean the supply of green Ohion is kept up all through the early part of the summar, a matter of some importance when the antuma-nown Oaiona are injured or destroyed. I made a new departure this seavon in Oaion mowing, when about the middle of March I found the ground frozan to a depth of 2 feet, except about 9 inch: from the surfac. I pricked up the land, sad sowed the Onion seed in drills. It came ap in first-rate fashion, the drills heving been covered with spens Mashroom-bed manare, bat not trodden at ficas. M. Temple, Carron, N.B.

NEW USE8 FOR JADOO FIBTE.-FArns of many kinda have proved to do so well in this soil, that its great lightness in weight points to its use as very desirable in coveriag the walle of ferneries behind wire-netting, and alsil to mach ligater nettiag boing then necansary. The rapidity with which seedling plants throw on's their roots into this material anggeste the expediency of wrapping a mall quatity 0 it ronad auch plant when they are belug pricked out, especiallv in wach vary dry weather as we havo had lately. W. T., Bishopsteiynton.

## OUR POULTRY

By Harrison Weir. (Copyright.)
(Continued from vol. xvii., p. 781 )
The Indian Gane, an a coloured fowl, comen next, at of much excellence for "table parposes." It is of the Malay type, but with much shorter legg, and of a more aturdy appearance, and is apt, like the Malay, to be rather inclined to rest on the hocke or heel, thus showing in some degree ite past ancestry. The fleah is firm, short in fibre and in quantity, that on the breast being somewhat dry by ecmparison with the old Eaglish Gane, and in some cates is nomewhat hard, owing probably to the almoat entire lack of fat on that portion of the body; which defect, for defect it is, is somewhat atoned by the excess on the back and the abdomen. The feathern are short, hard, and closs, and of varied colouring, wotne being very dark, while others are of a bright intente red, pangled with black, with black and golden hackle; others are of a rich bay colour, each feather being what is termed doubly laced with black. This is connidered by some to be the proper "exhibition" marking, though many, life myaelf, much prefer the old atyle of "pheasant spangle," which given a far brighter appearance. An to length of limb, there is also a
growing tendency toward the Malay tope mich is
much to be regretted, the short lege and thighe being far preferable as a quality for a table fowl. As layers they are very inferior to most other fowls, and incorrigible "sitters." As" fighters" in the poultryyard, they are only sarpased by the Game and Malay:

The Langsban at a table-fowl hav high claims for recogaition as one of the best of our table fowle; in fact, for an "all-roand" variety, it is acarcely equalled, with the excpption of it black lega. Oherwise it is good, and is gaining steadily in the eatimation of the pablic. I am not alluding to the long-legged, gawky, flamingo-typs of birds that is now affected- What are termed Langshan fanciersbat the shorter-legged and far more compact sort. Tuese quare-made bird are more hardy, leas lisble to leg wrakness, are more fleshy, and arrive at maturity much earlier than their "atorky" brethren, and are in every way more deairable.

The breat meat of the Langshan is of the whitest description, and of a rich and excellent davour. When well selected, and compactness of form sought for and obtained, it is often preferred by some to the coarser kind of D rking.
Taey are excellent layer, of fair miz', and of high colour, varying from a deep brown-chocalate to red, and red-tinted pink, and spotted with deep chocolate. Thongh not large, the namber is often surprising, laying often, sa they do, twenty or more consecative days. Taey are good mothers, and the chickens are hardy and eaaily reared, the early hatches withatanding the cold far better than moat fowl.

Tae black-coloured variety is the mot common, though now there are white and blue claiming pablic notice and favour.
( 70 be continued.)

## Trees and Shrubs

## MAGNOLIA WATSONI.

This comparatively new hardy Magaolia has lately been ia bloom at Gunnersbury. The leave are glabrous, obovate-oblanceolate, tapering at the basy into a longish petiole. The flowers, which are produced with the leaves, are 5 inche acrons, of a delicate cream colour, the three oatermost eegmente obovate, spoon-shaped, somewhet feshy, and of dall rosy-pink colour. A fizure is given in the Gardeners' Chronich, vol. xvi, 1894 p. 189.

## SOCIETIES.

## NATIONAL ROSE.

Joly b.-The great annual exhibition of the National Rose Society at the Cryatal Palace wat held on the above date. There have been many despondent forccant this mearon as to the inferior quatity likely to be exhibited at this ahow, owing to the exceptionally inclement season with which growers have had to contend. If the wortit of these forecasts were not falfilled-and we think they were not-at the same time, there was no doubt a falling off in the quality a compared with last year. The extreme trosta in February, about which we have talked so long, had a killing effect in many dictricts, and it was particularly unfortunate that anch an abnormal visitation thould be succeeded by a hot season and long drought. Nevertheless, there were many ntands of excellent $R$ jees at the Pulace ot Saturday last, and individual bloom quit worthy the Suciety's Silver Medals were eavily found, bat unlike the exhibition in the previous week at Glorceater, there were many indifferent collection well.

## NURSERYMEN'S Classes.

Seventy-two distinct Single Trusses. - There were ive com petitors for the coveted Trophy and Gold Modal which ancom pany the 1st prize in this mort important class. Fach com petitor had placed a etased of blooms of the greatest excesllencion possible in such acason, and, sllbeit, there were isferior specimens in every collection; there nevertheles heow
judged worthy of the Silver Meda's were each found in this clase, one of them in Mr. B. R. Cants collection, and the
other in that from Mr. Frank Cant. First-place was awarded to Mr. B. R. CANT, Colchester; and 2nd to Mr. Frank Cant, also of Colchester, who held the trophy during the year just ended. The blooms in the 1st prize ahibit were - Back row: Her Majesty (Silver Medal), Suzanne M. Rodocanachi, Lady Mary Fitzwilliam, Marie Baumann Caroline Testout, Duke of Fife, Marchioness of Dufferin Ulich Brunner, Alfred Colomb, White Lady, Boildieu . Y. Teas, Souvenir d'un Ami, Maurice Bernardin, Marie Finger, Madame Crapelet, Mrs, Jno. Laing, Countess of Oxford, Madame de Watteville, Xavier Olibo, Heinrich Schaltheiss, Earl of Dufferin, Duchesse de Morny, Guatave Pigannean. Centre rove: Marquise de Litts, Beauty of Waltham, Luciole (a pretty bloom, with attractive bronze Wadnam, Lucioce (a pretticult to obtain in such condition), Mrs, Sharman haing, I Bole dor Madome Heari Periere, Chas Iefebre Marchioness of Londonderry, Marie Verdier, Marchioness of Marchioness of Londonderry, Marie Verdier, Marchioness of Downshire, Dupuy Jamain, Innocente Pirola, Duke of Edin-
burgh, Sultan of Zanzibar, Ma dame G. Luizet. V'ictor Hugo burgh, Sultan of Zanzibar, Ma dame G. Luizet. Jeannie Dickson, A. K. Williams, Maréchal Niel, Dr. Sewell
Catherine Mermet, Horace Vernet. Souvenir de S. A. Prince Catherine Mermet, Horace Vernet. Souvenir de S. A. Prince
Dr. Andry. Front row: Ethel Brownlow, Reynolds Hole Merveille de Lyon, Etienne Levet, La Francp, Captain Hay ward, La Fraicheur, Duke of Wellington, Madame Cusin, Jean Soupert. The Bride, Alfred Dumesnil, Marie Van Houtte, Fisher Holmes, Ernest Metz, Crown Prince, Comtesse de Vadaillac, Camille Bernardin, Margaret Boudet, Duke Nadaillac, Camille Bernardin, Margaret Boudet, Dake of Connaught, Countess of Rosebery, Comte
Marguerite de St, amand, and Prince arthur.
Mr. Frank Cant was only a few points behind. In hi tand were good blooms of Comtesse de Nadaillac (Medal) Her M"jesty, Gustave Piganneau, Marie Baumann, Madame de Watteville, Corinna, Victor Hugo, Captain Huyward, Duke of Connaugat, Mrs. Jno. Laing, Horace Vernet, Charles Gater Duke of Albany, Alfred Colomb, Eihel Brownlow, and Earl of Dufferin ; 3rd, Messrs. Harmesess \& Sons, Bedale, Yorks.
Forty distinct varieties, three trusses of each.-The exhibite in this class made a capital display, and the blooms in the lat prize stand from Mr. Frakik Cant were very bright and effec tive. Those which appeared specially good for grouping in trebles were Victor Hugo (excellent colour), Pride of Walcham, Sazanne-Marie Rodocanachi, Duke of Fife, Ulrich Brunner Marie Verdier, Duke of Connaught, Marguerite de St. Amanत Innocente Pirola, Comte de Raimbaud, Baroness Rothschild, Salamander, and Mrs, John Lairg. Mr. B. R. Cant was 2nd, and we noticed in his collection very good trebles of Prince Ar thur, Mrs. Sharman Crawford, Heinrich Schultheiss, Duchess ce Morny, Chas. Lefebrre, Marchioness of Dufferin, A K. Williams, Her Majesty, Mrs. Jno. Laing, and Merveille de Lyon. The 3rd posicion was secured by Mesere. Harkness \& Soxs.
Forty-eight, distinct, single trusses,-Messers. PRIor \& Sows, Co chester, were lst, and their best blooms were Sn-zanne-Marie Rodocanachi, Duchess de Morny, Abel Carriere, Star of Waltham, Marie Baumann, Marie Verdier, Gustave Piganneaui, Horace Vernet, Maréchal Niel, Mrs. John Laing, Countess of Oxford, Bruce Findlay, Français Michelon, Annie Wood, Constantin Petriakıff, and Rrnest Metz. Mr. Hemry Merryweather, Southwell, who was 2nd, showed good specimens of Guatave Piganneau, Comtesse de Ludre, Fisher Holmes, Chas. Darwin, Mrs. Jno. Laing, General Jacqueminot. Mesars. J. Burrell \& CJ., Howe House Nurseries, Cambridge, were 3 rd
Twent; -four distinct single trusses.-The quality in this class for twenty-four blooms reigned very high, especially in the exhibit from Mr. Jwo. Mattock, New Headington, Oxford. Copital were the following: - Dupuy Jamain, Duke of Connaught, A. K. Williams (very pretty and bright), Guatave Piganneau, Her Mr jesty, Horace Vernet, Charles Lefebvre, Comtesee de Nadaillac, Duke of Bedford, and Mrs. J. Laing. The 2nd prize lot came from Wales, and were exhibited by Vre, Stepher Treaeder. Pwlleoch Nursery, Cardiff. The blooms were rather emal', but pretty and bright pevertheless; blooms were rather \&mal', bot pretty and bright Devertheless;
those most attractive were Duchesee de Morny, Alfred Colomb, those most atcractive were Duchesse de Morny, Altred Colozab, Lady Helen Stewart. Courtess of Rosebery. Duke of
Connaught, and Exposition de Brie. 3rd, Mesars. Townsend Connaught, and Exposition de Brie. 3rd
a Sons, Lower Broadheath. Worcester.
Twenty-four dintinct varietier, three trusses of each.- Messers. D. Prior \& Sons, who were 1st, showed excellent trebles of Constantin Petriakoff, Mrs, J. Laing, Heinrich Schultheiss, Alfred Colomb, Fisher Holmes, Duchese de Morny, A. K, Williams, Marie Verdier, Xavier Olibo, Jeannie Dickson, Marie Raumana, and Her Majesty. Mesers. Townsexd \& Sons, Worcester, were 2nd ; and Messra. Geo. Cooline \& Nows, Bath, 3rd.
Eighteen bumches, distinct, oxhibits to be staged in nases or other receptac.es, instead of boxes.-This was an interesting clams, because it afforded a little variation from the usual boxes and flat metbod of showing, and gave a little opportunity to growers to exhibit in a more tasteful manner. Exhibitors were not limited in their ehoice of varietiep, but the space for each collection was not to exceed 6 feet by 3 feet. Messrs. PAUL \& Sows, Cheshunt, who were let, had a pretty group, the sprays of flowera bearing pood healthy foliage, shown in vases. The varieties chosen were General Jacqueminot (I.P.). Etienne Levet (H.P.), Jeannie Dickson (H.t. ), La France (H.T.), François Levet (H.P.), Mrs. Paul (Bourbon), Paul's Cheehunt Scarlet (H.P.), Abel Carriere (B.P), Heinrich Schultheiss(H.P.), Bacchus (a new H. P.), Caro(B.P ), Heinrich Schultheiso(H.P.), Bacchus(a new H. . .), Caro(H.P.). Alfred Colomb (H.P.), Suzanve-Marie Rodocadachi
(H.P.), Countes of Oxford (E, P.), Captain Christy (H.P.), (E.P.), Countess of Oxford (E,P.), Captain Christy (H.P.),
and Juke of Edinburgh (H.P.), Mr. Gko. Mourt, of Canter-

## bury, was 2nd in this class; his best were Fisher Holmes, Marie Baumand, Gabrielle Luizet, and Niphetos.

## Tel and Nolsette Section.

Twenty-four distinct single trusses. The principal prixe in this section was well won by Mr. Frank Cant, who has exhibited Teas very succesefully this season. His collection in this class was of excellent quality, judged by the average merit of the exhibition. The blooms staged were the follow-ing:-Back row: Ernest Metz, Madame do Watterille, The Bride, Niphetos, Madame Cusin, Souvenir d'Elise Vardon, Comtesse de Nadaillac, and Innocente Pirola; Centre row Catherine Mermet, Souvenir de S. A. Prince, Ethel Brownlow, Maréchal Niel, Souvenir d'un Ami, Hon. Editb Gifford, Maman Cochet, and Souvenir de Paul Neyron; Front row Cleopatra, Francisca Kruger, Bridesmaid, Marie Van Houtte, Madame Jacquier, Rubens, Corinna, and Jenn Ducher. Mr. B. R. Cant had blooms of smaller size, but otherwise they were good, being bright and fresh-looking. Madame Cusin was splendid; Devoniensis, Madame de Watteville, Ernest Metz, Innocente Pirola, Bridesmaid, Corinna, and Catherine
Eighteen distinct single trusses. - There were nine entries for this class, and consequently the quality of the prize collections run very close. The 1st position was taken by Mr. Jwo Mattock, New Headington, Oxford. In his stand we noticed as the best specimens, Souvenir d'un $\mathbf{A m i}$, Hon. Ed. Gifford, Adnm, The Bride, Efnest Metz, and Catherine Marmet. Mr. Henry Merryweather took 2nd, and he had good Catherine Mermet, Cleopatra, and Epnest Metz, \&c., smaller in size than the first exhibit; 3rd, J. Burrelt \& Co., Howe House Nurthe first exhibit; Cambridge.
Eighteen distinct, three trusses of each.-There were five colections shown in this class, and of these the best was one from Mr. Frank Cant. The stand contained several very fine trebles, but was nevertheless much marred by a few inferior apecimens, such as those of Francisca Kruger. The best were Madame Cusin (very good), Catherine Mermet, Madame de Watteville, Souvenir d'un Ami, Rubens, Innocente Pirola, The Bride, Ethel Brownlow, Comtesse de Nadaillac, \&c.; Mesers. The Bride, Ethel Brownlow, Comtessede Nadaillac, acc.; Messrs D. Prior \& Sons were 2nd with a fresh collection, bright and
clean, but small, Maréchal Niel, Madame Cusin, Ernest Metz clean, but small, Maréchal Niel, Madame Cusin, E,

## OPEN CLASSES.

Twelve trusses of hybrid Teas, not fewer than nine varieties. -The hybrid Teas are now fully recognised by the Society, and have a special class to themselves. The class is a popular one and there were eight or more entries. The lst prize was won by Mr. Frank Cant, and the names of his varieties were Augustine Guinoiseeau, La France, Viscountess Folkestone Lady Mary Fitzwilliam, Caroline Testout, Kaiserın Augusta Victoria, Duchess of Albany, Grace Darling, Danmarck, Germaine Caillott, and La Fraicheur ; Mr. B. B. Cant was a close 2nd; his La Fraicheur was excellent; Captain Christy and Kaiserin Augusta Victoria were also good. Mr. Geo. Prince Oxford, who was 3rd, included a very fine bloom of Kaiserin Augusta Victoria.
Twelve trusses of any yellow Fose axcept Maréchal Niel.This class was won by Mr. Geo. Prince, Oxford, with a stand of moderatel y -good Comtesse de Nadaillac; Mr. Joen Mıtтock, who was 2nd, sbowed the same vanety; and Mr Erank Cant with Marie Van Houtte, was 3rd.
Twelvs single trusses of any white Rose.-Mr. GEo. Mount won with good specimens of Merv
Twelve single trusses of any crimson Rose. - With very bright, but slightly damaged blooms of A. K. Williams Messrs. Townsend \& Sons were lit, being followed by Mr B. R. Cant, who had Guatave Pigannezu, and Mr. Gro MOUNT, who had good Ulrich Brunner.
Twelve single $t$ usses of any dark velvety crimson var iety. Mr. B. B. Cant and Mr. Geo. Moust were awarded equal lats for two fairly commendeble stands of Fikher Holmes 3rd, Mesers. G. and W. H. Burcir, Peterborough, with Horace Vernet.
Iwe've single trusses of any light Rose.-The 1et prize ex hibit in this class was a stand of twelve blooms of Mrs. Roses in the exhibition. Certainly the brighteat of all th light varieties, it is at the same tiase pretty and attractive in tone. The blooms wera showa by Messra. Alex. Dickson \& Sors, Newtownards, Ireland. 2nd, Messrs. D. and W. Croll Dundee, who had extra nice Mrs. Jno. Laing, and the same variety was showa by Mr. Mrank Cant, who was 3 子d.
Tweivs single $t$ russes of any Rose except a Tea op Noisette. There was coneiderable comperition in this as in a fow other of the ee single rariety classes. Mr. Trank Caxt, who was placed lat, had extra good blwoms of Her Majesty, very full and bright; and Messrs. Paul \& Sory, Chesinunt, were 2nd with the same variecy; while Mr. B. R. Caxt, who had Marchioness the same vaniecy; whit
Twelve single trusses of any Tad ar Noisctifo-Mr. B. R. Cant was 1st, with a dozen nice blooms of the lovely Madame Cusin: Mr. Frank Cant was 2nd, trusting to Madame de Watteville; and Mr. Jas. Matrock obtained 3rd with Erneen Metr.
Twelve single trusses of Marechat Niel.-This clnes was only poorly anstained. Messrs. Pri
Meagrs. Townsern \$ Soxs, 2nd

## NEw Roske

The clasees here were of more interest than last season Mesrs. A. Drcisson \& Sows, of Newtownards, staging a good twolve of Mrs. Sharman Crawford, a Roee of great merit and
useful colour. Mr. F. CANT, Colchenter, was and, wilh
Marchioness of Londonderry; and Messrb, PAUL \& Sun Cheshunt, 3sd, with Jeanme Dickeon. Similar to last season all three winning stands were rased by the Irrsh firm.
Twelve var ieties, distnct. - Messrs. A. Dlekson \& Sons were also lst in this competition, showing Mrs, s. Cran ford, Shamrock, Avoca (a Tea like Frnest Metz, but brighter), Captain Hayward, Marchioness of Downshire, Tom Wood (a pretty Rose, between Madame Cusin and Souvenir de David in colour, but brighter and more full), Lady Moyra Beauclerc, La Fraicheur (good), Marchioness of Londonderry, Helen Keller, Mavour neen, and Muriel Grahame ; the last is a good and promisin Tea, with habit and form midway between Madame Bravy and Catherine Mermet. The colour is almust white, with creamy shading-an undoubtedly promising Rose. Murie Grahame was also staged for the Gold Medal, as was Countese of Caledon. Mr. W. Tailob, Hampton, showed a new Roee called Robin Lyth, which we consider is too near to Fisher Holmes and Harrison Weir. The new Tea, Muriel Grahame, was decidedly the best of those now staged for the first time.

## Garden Rosks

These were not so good as usual, and, as at Gloucenter, the hot season has evidently been too much for them.
Nursertmen: Thirty-six bunches, distinct. - Mersts. G. Cooling \& Sons, Bath, 1st, having L'IC éale, W. A. Richardson, Cooling's Searlet Perpetual, G. Regie, and Pepita being among the best. Messrs. Paut \& ${ }^{2}$ on, Cheshunt, and $F$. Cant, Colchester, were 2nd and $35 i$ with much the same varicties.
Eighteen bunches, distinct.-Messrs. Towxsumex \& Sor, Worcester, and Mesers. D. \& W. Croll. Duadee, were successful. The first-named had Madame Falcot, Madame Charles (good), Celine Forestier, and Isabella Splunt; whale Mears. Croll had a pretty bunch of Madame C. Brunners (Poly antha).
Amateurs:-A siloet cup prosented by the Rit Hon. Lood Penzance for eightsen bunches of Garden Roses, wae won by H. V. Macein, Esq., Worksop, who had very good bunches, but rather too cramped in arrangement. Tho 2nd prize atand from Mr. A. TaTE, Leatherhend, was certainly the most admired and best sat up stand; O. G. ORPEN, Eeq., Colchetter, was a good 3rd.
In an open class for twelve bunches of Roses suitable for button-hole flowers, Mr. J. Mattock, Onford; Mesors. W. Townshend \& Son, Worcenter; and Mr. A. EVANS, Oxford, were succesaful; W. A. Richardson, Madane Falcot, Ma Capucine, L'Idéale, and Madame de Watterille, being the varieties most bhown.

Nine bunchas of Single-flowered Roses. - Mesars. Q. Paut \& Son, Cheshunt, met with no opparition; Moschata alba, Lucida, Rugosa, and Pissardi were the best.
Mr. Mattoce, Oaford, had a very pretty lot in the "di-play of Roses ' (open), and was followed by Menors. Townsemp \& Son, Worcester.

## Medal Roses.

Bennett's Rose, Her Majesty, won the H. P. medale in both Nurserymen and Amateur Classes, and were exceptionally good throughout the show. Mr. B. E. CANT and E. B. Lindselle Kaq., were the winners. A large, bat rather loose, Comtese do Nadaillac was succasoful among Tea and Noisettes, for Mr. F. Cant; and Maséchal Niel for the Rev. A. FosterMelifar. The latter flower was also loose, but had once bee magnaficent.

## amateurs.

The Champion Tiophy Class, thirts-six booms, distinct. This class was open to all amateurs, and the coreted Trophy and Gold Medal went to Mr. E. B. Iivisell, Hitchin, who otaged some good flowers. His back row consisted of Her Majesty. 8.-M. Rodocauachi, Mrs. Faul, Earl of Dufferin Marchiones of Londonderry, Ulirich Brunner, Mrs. J. Lsing A. K. Williams, Merveille de Lyon, Charles Lefebrye, Madame E. Verdier, and Gustave Piganneau; midale row. Duchess o Bedford, Souvenir d'Elise, Dupuy Jamain, Caroline Kuster, Alfred Culomb. Gabrielle Luizer, Duke of Wellington, Duchese de Morny, Fisher Holmes, Comtesse de Nadaillac, Madame Husmann, aud Mrs. Sharman Crawford ; the front row being Catberine Mermet, Louiv Van Hoatte, Innocente Pirola, Prince Catherine Mermet, Louil Van Hoatte, Innocente Pirola, Prince
Arthur, Abel Carriern, Dr. Andry, Pranco's Michelon, Duke of Connaught. Etoile de Lyon, Maurice Bernardin, Marie Ver dier, and Dr. Sewell. Perhaps the worst flower here was Comtesse de Nadaillac, all of the rest being oven better than those in the professional classes. The Rev. J. H. Pembertond Havenng-atte-Bower, was 2nd, his boat being Her Majesty Horace Vernet, Xavier Olibo, Dachees of Bedford, and peculiarly-striped Marie Verdier. T. B Haywood, Eeq, Weculiarly-striped Marie Verdier. I. Bo Haywoon, Esig. collection.
$\triangle$ prece of plate. givan by Mr. Frant Cant for forty-oight singles, also went to Mr. K. B. Lindesli, who put up math the same varieties as in the trophy clase. Alirud Colomb Louis Van Houtte. and Marchioiese of Londonderry wore extra guod. Mr. Walter Drew. Ledbury, mado a elose zad, and was followed by Mr. A. TıTE. L-atherhend.
For trounty-four singles, J. GURaEy Towier Beq, South Woodford, Ensex, was lst, staging good ex mples of The Bride, Dr. Andry, Raynolds Hole, Harrison Weir, and A K Williams among others; Mr. W. Bores, Derby, beating the Rev. A. Foster-Mflliak, Ipswich, for 2nd honours. There was a particularly good Horace Vernet and Prince Arthur in Mr. Boyns's and, and a very full Merveille de Lyon in the Rev. A. F. Mellisa's.
For twenty-four, distinct, sung'e t. usses.-This division was open only to growers of ferer than 2000 plants of exhibition variety, and here W. C. Romarse, Erq., The Priory, Windsor,
-at 1at, the blooms of Mone. G. Laizet, A. K. Williams, The Bride, Horace Vernet, and A. Colomb, being very good; Mr. A. Slaughter, Steyninf, was 2nd, but had rather over-dreseed his blooms: without this, we think it probable the lit would have been awarded to him. The stand contained good blooms of Madame Alfred Vy, Prince Arthur, and Madame Cusin; Rer. H. Beaners, Harkstead Rectory. Ipswich, was a close 3rd, his h. Bet flowers boing Comille Bernardin and Mdlle. Gabrielle Luizet.
Luizet. Fur eighteen, dintinct, sinjle trusses, J. PARRFR, Esq, nakfield. Hitchin, was is front of Mr. E. Mawley, Berkhamsten, Herts; E. M. BetEune. Eeqoo Horsham, Mowl ng. Inocente Pirola, Charles Darwin, Gran Mon Hoatte Baroness Rothschild, Her Majesty, and
were the beest six in the let prize etand.
For nine truses of any Rose not a Tea or Noisette, the Rer H. Bervers, Ipawich, wis lit, with Mrs. John Laing; Mr. A. glaverter coming close with Charles Lefebvre; and E. M Betgusen Eqq., was 3nd, with some good blooms of Captain Chirty.
In an extra cbiss of eight diutinct ourieties. three trusses of
In an extra ch 18s of Ent distchin. was again well in front, the rarieties being Her Majesty, Souvenird'Elise, La Fraace, Earl uf Dufferin, Ulrich Branner, Mrs. J. Laing. Caroline Kuster, and Alfred Colomb; Mr. A. Tate, Leathernead, was 2nd, and had very clean trebles of Charles Lefebrre and A. K. Williams. The Eev. J. H. Pembertoa, Havering atte-Bower, being 3rd ta a very strongly contented class.
Tiotoe Bunches, not more thar sev.n trusses to a bunch.Rev. J. h. Pempertor was 1st, with a pretty lot, which conrained a good bunch of Gloize de Bordeanx, an old Rose not met with olsewhere in the show. H. V. MACHix, Esq., Gatoford Hell, Worksop, was 2ad, Viscountess Folkestone, and M. de Lyon being worthy of epecial notice.

In the division opes to growsers of fewer than 1:00 plants, the class for nine distinct single trusses, was etrong. Mr. J. Bateman, Roee Vale, Archway Road, N., taling 1st, with Charles Lefebvre, Her Majesty, Countess of Rosebery, S.-M. Rodocanachi, and Beauty of Walthom, very kood. The Rev. H. B. Brrox, The Vicarage, Ls mpne, had a plendid Marie
Baumann in his 2ad prize atand; M PAREER, Uld HadingBaumann in his 2od p
ton, Oxford, was 3rd.

Six dist net, three trus es of each. - In this clase, P. G. C. Burvard, Fiq.o Reigate, won with Duke of Edinburgh, M. de Lyon, U. Branner, General Jacqueminot, G. Luizet, and Rarones, Rothechild. M. WHITTLE, Esq., Leicester, and J. Parker. Req.. Oxford, followed. In the ith prize atand. from O. G. OnPEx Eeq Colchester, there were extra good from O. G. OnPEX, Eqq. Colcheater, there
treblee of M. de Lyon and Innocente Pirola.

Nine duthnet single trusses.- A division for growers of lese than 500 plante of exhibition varieties was one of the strongest in the show. H. Posmre, Eeq, Ashford, was lat, having good flowers of abel Carr ere and Duke of Connaught; 2nd, H. P. Langdon, Esq. Brentwood; 3rd, Mr. G. Moules, Hitchin, with grod stands.
Fur rix Sing'es in the same divivion, E. R. Smite, Erq, Mnswell Hill. N., won with a very clean and bright hox; the Rev, G. E. Jeans, I-le of Wight, and W. D. Fresefisid, Req., Reigate, following in the order of their names.
Four distinct varieties, three of each.-A. Evans, Esq, Marston, Oxfo d: W. D. Fresefield, Eaq.. Reigate; and Miss E.B. Denton, Winduor, won in like order, Mp. EVANs having Horace Vernet and Marie Bammann very good.

An extra c'ass of twelv: singles wan made for the Challevge Cup, offered by Memrs. Harkness \& Sont, Bedale, Yorkshire. Ten comperitors staged here, the winner being O.G. ORPEN, Esaq.. Colchester, who staged Merveille de Lyon, Ulrich Branuer, Inoocente Pirola. Dr. Sewell. A. Colomb, The Bride, Envest Motz, Ostherine Mermet, Souvenir d'un Ami, A. K. Williamf, Comtesse de Paniser, and K. Augusta Victoria, the lut two being excaptionally good. P. G. C. Burnard. Esq. Reigate : M. Waitrle. Eqq., Leicester; and Conway Jones Esq. Hueclecote, Gloucester, following in the order of their Est. Hucclecot, Gloucester, following in the order of their names. Thare Was a goo
Mr. Conway Jones' box.
For six trueses of any Rose excopt Tea of Noisette, J. Pareer, Epq., Oxtord, won in this class with Her Majesty; Mr. S. KRXCE, Heanor, Derby, following, with Mrs. J. Laing; and Dr. TuCker. Swanley, taking 3rd, with Ber Majesty.
Six distinct truscer, open on'y to thase who have never won a N. B. S prizs-Tirat prize a piece of plate, given by the Rev. J. W. Merlor, was secured by C. E. SHea, Eiq., Foot's Oray, Keat, who put up Eenateup Vaiser, G. Piganneau, Dr. Andry, Dachesse do Morny, H. Schultheise, and Marie Baumann io good form; but was clocely run by F.W. Cay piow, Eeq, Colley Manor, Reigate, whose box had a purticularly good Prince Arthur; F. Denmisox, Eeq., Handsworth Wood, Burmingham, wa 3rd.
Six singles, open on "y to members who have joined the National Rose society sisce the last Metr politan show, found R. W Bowyer, Rug., Haileybury College, Herta, and L. Parce, Enq. Derby, very close competitors; Mr, R. F. Hobss, Worcester being 3ut.
Six distinct Rises, th bl srown within eight mites of Charing Cross, for s piece of plate given by E. Mawley, E (eq, was Won by K. H. Girford, Req. Streatham, with Pride of Wiltham, G. Pigunneau, Mrs. J, Laing, A. K. Williamm Fisher Holmew, and Charles Lefebvre, the last three being extra bright and good. E, K, EMTTH, R-q., Musmell Hill wis a cloes 3nd; and R. H. Lavarow, Beq., Hendon, Ird.
Tweles distinte, single trusses, to be growow within leve miles of Charing Cross,-The stands shown were also good W. Hodesox, Eeq., Shirley Cottage, Croydon, being Ist, and having Victor Hugo, Prisce Camille de Rohan, Fisher Holmes,

General Jacqueminot, and Dule of Conaught in fine form: A. Beyfus. Esq. Norwood, and Mr. H. W. Dews, Beckenham, were 2ad and 3rd respectively.
Six distinat New Roses, single trusses.-The Rev. J. H. PEMbertor won with La Fraicheur, M. of Londonderry, and M. of Downshire as the best; F. Mawley, Esq. Berkhambeing the best vanieties in this stand.

Eighteen distinct, single trusses, open to all amzeurs, -The Tea and Noisette Trophy, also the Gold Medal, were won by O. G. Orpen, Esq., Colchester ; E. Metz, Innocente Pirola, The Bride, Souvenir d'un Ami. Souvenir de S. A. Prince, Catherine Mermet, Anas Olivier, Madame Hoste, Maréchal Niel, and Marie $\tan$ Houtte, were very clean and good blooms. A capital Made of found in the Rev. A. Foster-Melitar's stand, whose bod w a found in the Rev. A. Foste Mréchal Niel, La Boule d'Or, Etoile de Lyon, and Madame Hoste; the Rev. H. Bervers, Ipowich, a close 3rd, had May Rivers, Souvenir d'Elise, F. Kruiger, and The Bride, good.
Twelve distint singles, open.-O.G. Orpear, Esq., was again to the front with a clean lot of blooms; E. M. Bethune, Esq. Denne Park, Horsham, had good blooms of Madame Cuz in and Innocente Pirola, in his 2ad prize stand; 3rd, Rev. H. Berners. A good Madame de Watteville in Mr. A. TATE: tand is deserving of meation.
Eight treb'es, distinct. - A piece of plate given as a memorial of the late Rev. the Hon. J. Townshend Boscawen, was in this class won by O. G. OpPEN, Req., Innocente Pirola, C. Mermet, Rubens, Souvenir d'un Ami, Alba rosea, Marie van Houtte, The Bride, and Comtesee de Panisee, being the varieties that he showed. The Rev A. Foster-Melliar and H. V. Macein E\&q., Worksop, were respectively 2nd and 3rd.
Nine single trusses of any Tea or Noisette Rose.-O. G. Orpers, Eaq., the Rev. A. Foster-Melciar, and the Rev. H, BERMERS were successful ia the order of their names, $\boldsymbol{F}$. Kiufger C. de Nadaillac, and Madame Hoate being the varieties.

Twalve singles, distinct, open only to thase who grow fewer than 500 plants.-18t, Conway Jones, Esq., who had very good blooms of Niphetos and Ethel Brownlow. Mr. J Moules, Hitchin, and Mr. J. Parker, Old Headington Moules, Hitchin, and Mr. J. Parrer,
Oxford, were placod 2ad and 3rd as named.

Nine singles, distinct.- In the same division, R. H. Lavg ton, Esq, Ryymead, Hendon, wh 1st, the blooms of $k$ Brownlow ani Madame Cuzin being good: Mr. A. Evans, Marston, Oxford, and W. C. Romaine, Rsq., Windsor, were and and 3rd respectively.
Nine distinct single trusses, same division, for growers of fower the th 200 plants.-Mr. J. PaBKER, Old Headington, Oxford, had the beat lot here, Mr. T. A. Washbourne, Gloucester, and W. D. Freshrield, Eaq., Reigate, following. This was a gooj class throughout.
Six singles, sume conditions.-G. W. Cook, Esq., Torriogton Park, North Finchley, was awarded an equal 1st with the Bev. F. B. Burnside, sutton-on-the-Hill, Derby. Mr. Cook's best flower was The Bride; Mr. Burxside's F. Kruger, Madame Hoste, and I. Pirola were very grod; the 3nd wat withheld, and Mr. J. Moules, Hitchin, was 3rd.
In an extra class for four varitties, three of each. Coswar Jones, Eaq., won with E. Metz, I. Pirola, Niphetos, and Cumtosee de Nadaillac; R. H. Langton, Esq., Henjon, and W. Botes, Esq., Derby, being 2ad and 3rd.

Six of any Tes or Noisette Rose.-Mr. A. Evans, Oxford, was let with Marie Van Houtte, Mr. W. D. Freshrield Reigate, 2nd with the same variety, und Mr. R. Mawley 3rd with Souvenir do S. A. Prince.
Nine bunches, distinct.-There was only one exhibit for Messer. Paul \& Sos's prize, Mr. J. Parker, Old Headington, Oxford, being awarded litt.
Six single tmusses, distinct.-This was open only to amateurs who have never wou a prize at the National Rose Soviety's exhibition. 1, At, B. Boyer, Eeq., Hailebury College, Herts, with a pretty lot; Mr. K. H. GIfford, Streatham, and Mr. J. Pegare, Beeston, Noctu, following.

MI3CELLANEOUS EXEIBITS.
Mosars. WM. PAul \& Son, Walthsm Crow, Herts, ataged a large collection of Roses in baskets, incluling about iwenty Farietien raised in the nursery at Waltham Oross. Amongst the latter we noticed the axcellent fiesh-coloured Clio (H.P.), and spenser (E.P.). Folyaniha varieties, Teas, Hybrid Teas H.P.'r, and others were well represented.

Mr. W. Rumsey, Joyning's Narsery. Waltham Crows, was Also an exhibitor of a grod collection of Roses, amongat which Wo noticed nice baskets of L'Idéale, Wm. Allan Richardson Reynolde Hole, to. Mr. Cras. Turaer, Royal Nursery, Slough, had arge tible contaiung profusely-flowered branches of Turner's Crimson Rambler, some of which were 6 and 8 feet high.
Mesare. Wallace \& Co., Colchester, had filled a table with sprays of Lilies and Calochorti.
Mr. W. E. TiDy, Brockhampton Nurneries, made a large exhibit of Sweet Peas and other things,
Two excellent groups were made by Mears. Jwo. Lifwe a Soms, Forent Hil, Landon, 8. R. Mmert. CEEAL LiNG Sons, Lowfield Nursery, Crawley, exhibited a nice collection of hardy herbeceout flowers; and Memrs Jackmar to Soxs had milar exhibit.

ROYAL HORTICULTURAL Jour 9.-The uanal fortnightly meeting of the Society was held on Tuenday lat in the Drill Hall,
numeron, and many of botanical interest were shown. Competitive classes for Roses occapied rather more apace than one of the large tables afford, Plants and flowers in season were shown by several exhibitora, and the Frait Committee had numerou exhibite before them. On the whole, however, the Hall was less full than at several of the preceding meetings.

## Floral Committee.

Present: W. Maraball, Eeq. Chairman; and Mears. Jno. Fiaser, H. Herbst, Geo. Stevena, H. B May, J. Jenningy, J. Barr, E. Beckett, C. Blick, Rev. G. H. Engleheart, J. T. Bennett Pcê, C. J. Salter, and J. Liting.

Messrs. Daniels Bros., of Norwich, exhibited some very strong epraye of a variety of Godetia, named Marchioness of Salisbury, a very free and large fi owerer, being nearly 4 inche across, colour scirlet, margined with white, and white centro (A ward of Merit)
(Award of Merit). bited plants of a Godetia named E. F. Fairbairn, colourscarletcrimson, with lilac centre.
rimson, with lilac centre. Spraye of a good Ivy-leaved Pelargonium, named Queen of
Roses, was shown by Mr. G. Daniells, Lime Tree Rosd, Norwich.
Messrs. SuTron \& Sons, Reading, exhibited in a large box, plants of the South African annual Nemesia strumosa. Variou shades of colou
Mr. Henry Fckford, Wem, Shropshire, exhibited sprayt of varieties of Sweer Peas, shown in about fifty glasses, and in extraordinary variety of colour-Captivation, purple; Countess of Aberdeen, flesh colour, very pretty; Queen Victoria, cream: and Lady Grisel Hamilton, pale bius, an among the best and most distiact of the newer varietie (Silver Banksian Medal).
Messers W. Cutbusf \& Sons, Highgate, London, No, exhio tited two plants in flower of Carnation La Villette, flowen rose and yellow; and Mr. H. Becker Jersey, sent plants and blooms of a border Carnation named Jersey Maid; the flowen are blush-pink, changiog to white, very large, and abondantly free.
Mr. Chas. Turyer, Royal Nurseries, Nlough, exhibited flowers of Carnations and Picotees in variety; tha flower were good in quality, bright, and treeh (8ilver Banksian Medal).
A double Petunia named Laura Minnie Beldam came from Mr. A. BELDam. The Lodge, Acton; and Mr. H. Middet HURST Manchenter Street Liverpool, showed blooms of Chrysanthemum maximnm
Mesors. Jwo. Laing \& Soms, Forest Hill, London, 8. Fion staged a few tuterc $u+$ rooted Begonias, and were recommended an Award of Merit for the variety Mr. F. Bostock, a neat woil formed double flower of excellent crimson-scarlet. Also ton Streptocarpus Laiog's multiflora. The flowers are lerne bluish-purple, with purple-lined throat. There were thirs open flowers borne on the plant in a 5 -inch pot.
Menis. Dobbie \& Co. Rothesay and Orpington, wart recommended Firat-clasa Certificate for Arnebia comuts The plant is an annual of rather straggling habit, and grow apparently about 12 inches high. The flowers are small, yellow in colour, but each petal marked on most of its suriap with velvety purple. The plante blocm very freely, but pot many open at one time.
Mr. Anthony Waterer, Knap Hill Nursery, near Woking exhibited aprays of the dark-coloured variaty of 8. Bumalith known as Anthony Waterer, and also sprays of a very delicets light variety named Margaret.
Meesrs. P. Barr \& Soss, King Street. Covent Gandan, London, itaged a brilliant collection of hardy perennial herbaceous flowera. Bunches of Anthemis tinctoria, Eryagiume Malva moschata alba, Lilium Browni, L. candiducn, L. tent ceum, L. Krmmeri, varieties of Poppies, \&C., were noticul (Silver Bankaian Medal)

## G. A. Furivi Medal)

G. A. Farini, Esq., Perty Vale, Forest Hill, showed a doubly Begonia named Farini'a Striped, the centre petals striped with yellow, reat of the flower scarlet.
Messrs F. Bayder a Co., 8t. Albans, agaia showed play of Dipladenia atro-purpuren in flower, also D . boliviensis, at oxcellent lot of plants of Rriocnems Savderse, and a number of hybrid varieties of Bonerilas, beaide dozen plants d Diones Muscipula.
Me ors Jas. Veltch \& Sons. Royal Exotic Nursery, Chelsath howed apray of Rremurus Bungei, a mpecies growide aboul is feat high ; the colour of the flowers is light bright yellowi It is one of the prettieet of the genus. An Award of Meril was recommended to an excellent plant of Begonis $X$ car minata, a hybrid from B. coccinea $o$ and B. Dregeid". The plant is robust, very tree flowering, and the bloseoms are corn red in colour, and very much lapger iuse than either paresi Memern. Paul gous, Cheahuat, exhibited blooms of the new Boses Bacclas and Alan Cheal, noticed on a previa occasion; and also new H P. Rose named Haylenhury, bright rose-coloured bloom. campact, and of good size, wit petals of metiuse length (A ward of Merit).
Mise MCROWald, Northgate Nursery, Ohichester, whe reoom mended an Award for Caration Mrs. W. Bright, col00 bright jellow, flower of gaod form, and calyx non-splitting most cases.

A collection of Delphinium sprays wat sts-el by Mr. FORBEw, Hawick.

A very interesting exhibit of Lifies and allel flower whs made by Meanre. Waliace \& Co., Cilcheste: In Thin bergiamum is variety, $\mathbf{L}$ 。 dalmaticum, L. pardalin um Beurgell
moet of them of the lerpe-flowered section. Awards of Merit were recommended to Calochortus luteus concolor, a very delicato and pretty jellow variety; and to C. macrocarpus, a very large flower of mauve purple with yellow hairs
at bese. The greatest povelty, however, was a spray of flowers of a species of Hemerocallis, at present under the name of H. aurantiaca. Apparently the plant
grows mbout 2 feet high, and bears numerons bloseoms of grows about 2 feet high, and bears numerons blossoms of 1 inch wide, and the flower probably 8 inches across. A Firstclass Certificate was recommended to this acquisition, and a Silver Flora Medal for the group.
Mr. Jas Dovglas. Edenside Nursery, Great Bookham, had few blooms of Carnations: Mise Addyy, primerose yellow Haye's Scarlet, Lady Ridley, white; and Grace Dariing.

## ROSES.

Competitive classes for Roses were regarded as the principel feature of Tuesday's meetinc, but the Vational society's Crystal Palaoe exhibition haring previously been held there was not the amount of interest exhibited as at carlier shows. The
blooma must be deecribed in similar terms to those wave already used in regard to those shown at the Palace. Many of them were worthy all praise, but a good number wore inferior and on the whole they were not remarkable for high quality. though it may be added. they are far better than we could have expected in the face of di
to overcome this season.
The lst class for twenty-four sincle trusees (amateurs), not more than two of any one variety, was won by E. B. Limpsell. Eeq., Bearten, Hitchin, he had firet-class hlooms of Earl Dufferin. Marie Baumann, Ulrich Brunner, Duke of Wellington, and E. Y. Teas. T. B. HAYwood, Eeq., Woodhatch, Rejgate (gr., Mr. C. J. Balter), was 2ad, with pmaller, younger, and
pretty blooms.
Twenty-four single trueser, distinct (op n).-Mr. FRANE Cant, Braiswick Nursery, Colchester, was lst in this clase, and his stand contained mome very good blooms, notably Suzanne-M. Rodocanachi, Mrs. J. Laine, Marchioness of Londonderty, and Victor Hugo; 2nd, Mr. B. R. Cavr. Colcbester. Twelve single trusses, distinct (amateurs).-J. GUBNET Fowler. Esq., Glebelands, South Woodford (Gro, Mr. J.
Davis), was the winner here, and of the blooms ahown we mavis), was the winner here, and of the blooms shown we Orper. Feq.. Hill Side, West Bergholt, Colchester, was 2nd.
Twelve single trusses, distinct (open).-Mr. B. R. Cant was the beat exhibitor, and had noticeable blooms of Gustave and prize was taken by Mr. GEo. Mount, Canterbury, who had a very equal lot of fair quality.
Six single trusses, dietinct (amateurs), was won by R. H. Lanaton, Esq., Baymead, Hendod, N.W. His blooms were fairly good. They were Ulrich Brunner, Her Majeaty, La France, Gustave Pignnneau, Merveille de Lyon, and A. K Williams. 2nd, R. H. Gifrord, Eeq. Holyrood, Streatham.
Six sungle trusses of one variety.-A. K. Williams was shown in good cordition by T. B. HAYWOOD, E\&q., who was : and alao by the Bev. J. H. Pemberton
Twelve distinct, three trusses of each. - This clasp, for twelve trebles, was awarded to Mr. B. R. CANT, who had blooms of con siderable quality: but Mr. Geo. Mount's Canterbury exhibit Was very fine, and the blooms exceedingly even. In our opinion Mr. Mount's was the better collection.
Troelve single trusces of any one variety (oprn),-Mr. B. R. Cant showed well here, having Gustave Pigannenu; and Mr
Geo. Moukr, with Fiaher Holmes, was Ind.

Teas and Noisettes.
Twenty four single trusses, not fower than twolve varieties, or more than three trusses of any one variety (amateurs). O. G. Orpen, Eeq., was lst, but his blooms were not extre good; E. V. Mıcein. Eeq., Gateford Eill, Worksop, was 2nd. Six single trusses, not less than four varietien. -Thim claes was won by R. H. LANGTON, Esq. with nice blooms; Com-
tes-c de Nadaillac and Princess of Wales were noticeable. Esq., was the wianer in this clasy (amateners).-R. H. Langton, Pirols: O. G. ORPER, Esq., being 2nd, with indifferent Souvenir d'un Ami.

Twenty-foup distinct single trusses (open)-Mr. FBANK Cantis lat prize exhibit whs of fair quality. The collection contained a large but not particularly pretty bloom of Brideomaid. Mr. B. R. CANT was 2nd.
Tweloe distinct, three trusses of each. -Mr. FRank Cant was the winner for twelve irebles, and Mr. B. R. CaNt and ncluding in this collection for twive distinct single trusuen Ernest Metz.

## Orchid Oommittee.

Present: Henry J. Veitch, Esq., in the chair ; and Mensrg. Jas. O'Brien (eecretary), T. B. Haywood, Dr. M. T. Mastery, Sydney Courtauld, Dr. B. CrawShay, E. Hill, H. J. Chapman, W. Cobb, W. H. White, J. Doaglas, C. Pilcher, and H. Williame.
A number of Orchids of exceptional botanical interest appeared at this meeting, the showy species being in the mainority, as witness the fact that not one was selected for a Firsit-clase Certificate, while only four, three of which were Rell-kwown old plants, received Awards of Merit.
Rich in interesting and beautiful botanical plants was the small group staged by Bir Trutor Lawreace, Barto, the President of the Society (gro, Mr. W. H. White). Aroong theee was a plant of Luddemannia Pescatorai, prith twog of the
pendent inflorecences thickly clad with orange-coloured flowers of singular structure. The flower-apikes are asid to attain at times a length of 3 feet. When thoroughly ostablished, it will form a very handsome plant (Botanical Certificate). Trichocentrum bymenanthum, the pretty little
Masderallia guttata, and the roee and parple Oncidium olivaceum Lawrenceanum, Schm., also each received a Botanical Certificate; and in the grourp were the pretty Zambesian Polyetachya. P. Lawrenceana. which has an aecending apray of whitish flowers with pinll lip; the singular-looking Aefrided Roeblingianum, Pleurothallis Grobyii and P. macroblepharis covered with pretty flowers of amall size; large plants of Masderallia Reichenbachiana, M. Peristeria, and M. $\times$ Stella and some pretty specimens of the dark purple-flowered M Rol'esas and M. calura, the handsome Miltonia vexillaria superba, a fine specimen of Epidendrum (Nanodes) Medusee, a aingular hybrid Oypripedium (Selligeram majus 9 . Sanderianum ${ }^{\circ}$ ), which will develop into a distinct novelty, and a pretty bright yellow Oncidium, and curions emall-flowered Maxillaria, both unknown.
No lesm interesting were sjme plants sent by the Hon. W AlTER Roteschiln, from his collection of rare botanical Orchids in Lord Rothechild's ardens at Tring Parls, Tring (RT., Mr. E. Hill). Of these, the singular Polycyenis mus cifera. Which bore three stout rpikes, one of which had
numerous large insect-like blooms fully expanded. The curious flowers were of pale-yellow colour, with red-brown spots: the arehed column very slender, and the lip furnished with hairs (Botanical Certificate). Another pretty species Was Zygopetalum stapelioides (known formerly as Maxillaris crimeon colour, and a purpla lip of a velvety texture (Botanical Certificate); and Oncidium olivaceum Lawrenceanum Lehm, also received a Botanical Certificato.
Mesore. F. SANDER © Co., St. Albans, were awarded a Silvel Banksian Medal for a five group of Orehids, in which plants of Cattleya Rex, C. Gankelliana, the C-G. variety virgmalis, and the handsome C.-G. Madouriana: C. Etdorado Wallisif, and other fine Cattleyas made a great dieplay. Amone them appeared Cattleya $\times$ Miss Mensures (Luddemanniana $\times$ velutina), a remarkable hybrid, with yellowish-salmon flowers veined with roee, and a lip in which the side lobes form, as it were, a narrow tabe over the columv, and the front lobe is broadly expanded. The lip is of a red-brows tint at the base, yellow-tinted beneath the column. and the front lobe in lilac with purple veins. Adother still more handsome hybrid 9 Leelio-Cattleya D. S. Brown (C. Trisnæi $\times$ LerlioCattleya Schilleriana), which in richnees of its purplieh crimson colour, bore a resemblance to L. - C. Arnoldiana,
but the flowers were rather fmaller than in that varipty Some of the pseudo-bulbe bare a striking resemblance to thope of L.-C. Schilleriana, and possesaed two leavas (Award of Merit). Also, for the first time. Mesrrs. SAnDwR showed the new Bornean Dendrobiom speciosisoimum, white. with rose bace and orange central lise to the lip (Botanical Certificate); Lycaste Dyeriana, a singular Peruvian species, with the habit of Cattleya citrina, but with angular peeudo. bulbs and drooping green flowers (Botanical Certificate); Dendrobium bracteosum, with bunches of dull roes flowers (Botanical Certifl cate); and D. b. album; the handsome Leelio-Cattleya Schilleriana Schrodero: Leelia Amanda, Dendrobium Phalænopsis Schroderianum. Aganisia ionoptera, the singularlooking Catasetum Christyanum; a pretty series of varieties of Miltonia vexillaria, Cirropetalum picturatum. Cattleya Brymeriana, Cypripedium $\times$ nobilius, $\mathbf{C} . \times$ Cabuzac, Odontoglowsum Harryanum, \&c.
Sir Frederick Wigan, Clare Lawn, East Sheen (rf., Mr. W. H. Young), showed Miltonia vexillaria Constance Wigan, very large and beautiful variety with blueh-white sepale and petals, and broad pure white labellum (A ward of Merit).
Mesars, Jas, Vertcr \& Son, Royal Exotic Nursery. King's Road, Chelsea, showed their singular hybrid Dendrobium porphyrogastrum (ouperbum Euttonii o, Dalhousieanum ${ }^{\circ}$ ), whose flowers were in size equal to D. $\times$ Ainsworthii, but of pale piak hue, the flat, shovel-ghaped labellum bearing a few dull rose lines at the bave; also Cypripedium $\times$ Dominianum albicans (caricinum $\%$, caudatum Wallisii ot), which differed from the original in its larger, more ivory-white flowers fromked with green.
R. I. Messures, Eaq., Cambridge Lodge, Camberwell (gr. Mr. H. J. Chapman), showed fine forms of Vanda tricolor (A ward of Merit), and $\mathbf{V}$. $\mathbf{t}$. suavis; Manderallia coriacea (Botanical Certificate), Miltonia vexillaris albescens, Vanda Parishii varieties of Cattleya Mendeli, and C. Gaskelliana, O. Eidorado
Wallisii, Odontogloserm Harryanum, Aërides multiflomm Lobbil, and Pleurothallis longissima ( $V$ ote of Thanks).
Geo. Maremall, Feq.o Olaremont House, Great Grimsby (gr., Mr. Jam. Johnmon), whe awarded a Silver Bankeian Meowl for a neat and woll-arranged group in which excellently wellgrown and profuse flowered varieties of Cattleya Warceewiczii (gigas), which exhibited remarkable variation, were the prinoipal features. With them wore other Cattleyas; a grand specimen of Epidendruca vite'lioum majus; various Odontoglosanms, Peristeria sapersa, \&c.
DE B. Crawsiat, Rsq., Rosefield, Sevenoak (gra, Mr. Cooke), showed the noble whito Odontoglosesum erispum, Mrs. De B. Orawhhay, and a grand plant of Brassia varrucoem (Award of Merit).
Mesare. Hictir Low \& Co, staged a pretty group of Oschids, in which were Grammatophyllum Fenzlianum, many varieties of Miltonis Roezlif, some fine Oncidium rariconne and O. macranthum, the pretty Dendrobinm Lowii. some excellent plants of Oncidium Lancesnum, the lips ranging in colous from gearly white to dark rove; Oattleya Baperba, C. Fldorado
Walliaii, Cypripediume Curtioii, O. superbieni, ec. (Bronze Walliaii, Cypriped
Banksian Medal).
Mesars. W. L. Lewts \& Co. btaged a group of Orchide in
which a pan of the handsome Madagascan terrentrial Oyporchis grandiffora, illuatrated in the Gardererai Chronicle February 18, 1893. p. 197, was an intereeting feature, and all the more welcome that Messre. Lewis prove it amenable to culture. Aleo in the group were the ningular habonaria Cinnabarina. Rria Clarkei, with curious small areenioh-white flowers (Rotanioal Certificate): Leelia tepebrom bells, a dip-
tinct and handeome form of the L. t . Walton Grange var. tinct and handsome form of the L. t . Walton Grange var.
clang, with vellowish sepals and petals, and bluah-white and dayk purple lip, a curious festure in which was its elongated acuminate front lobe: a singular tiny orange-fowered Vanda, previously named V. Lewisii; Bifrenaria vitellina, Cypridodium leucorshodum, and other Cypripediums, Oncidiam Schlimii, Odontoglossum hastilabium, and varions Cattleyes, I eelias, \&c. (Vote of Tbanks). Malcolm S. Coozr, Eeq.o Kingston Hill (gr., Mr. Buckell), showed forms of Cattleya Warscewiczii, so.
F. A. Brown, Req., Lawn Bank, Teddington (gr, Mp. Slatter), showed Schomburgkia tibicinis; Waltrk C. Clark. Req., Sefton Park, Liverpool, nent Oattleys Wamewiczii : J.
GUrvey Fowler. Baq.o South Woodiord, and R. Forster Alcocr. Esq.. Berthamsted, sent forms of Lelia tenebrose: and Armold WITT, Req.e Maida Vale, showed Sarcanthus filiformis.

## Fruit Committee.

Present: Dr. Robt. Hogg (chairman), and Menars. A. H. Pearmon, W. Pope, Alex Dean, W. Batea, T. Gien, Geo. Reynold, Geo. Wythes, F. Q. Lane, J. Smith, J. Hadson, and R. Fife.

An excellent collection of frait was exhibited by Mesars. number of varieties of Cherries, some thirty in all. The following were noticeable as being very good in colour or in size: Bigarreau Cleveland, B. Napoleon, B. de Schreken, Black Hawk, Black Tartarian, Black Eaglo, Empress Eugénie, Frogmore, Early Bigarreau. Governor Wood, Mey Duke, and Reine Hortense. Raspberries Yellow Antwerp and Superlative were shown in very well-fruited sprays, and sprays of different varieties of Currants were remarkable for the heary orops they bore. In a collection of Gooseberries, the following wers remarked: Golden Drop, Green Overall. Bright Venus, Early Red Hairy, Hedgehog. Forester, and Early Sulphur, \&c. (Silver-gilt Knightian Medal). Messrs. Vertce also exhibitod a fine collection of Peas (Silvor Banksian Medsl).
Mr. W. E. BECKETT, Aldenham House Gardens, Elstree, had a collection of vegetables remarkable for their quality. We noticed Cauliflowers Walcheren and Veitch's Early Forcing: Tomatos, Polegate and Sutton's Perfection: Peas, Duke of Albany, Carter's Telegrapb, and Prodigy: Carrote, Early Cem and Sutton's New Intermediato: Cucumbers, Up-to-Date and Victory; French Beans, Canadian Wonder and Ne Plus Ultra; Potatos, Puritan, Rarly Regent, add Sharpe's Victor: Broad Bean, Carter's Leviathan; Marrow, Mooro's Cream, a pretty little Marrow called Pen-y-Byd, \&c. (Silvergilc Knightian Medal).
Mrs. Whafreld, Ampthill House, Ampthill, Beds (gr.o Mr. Empron), exhrbited a collection of fruits and vegelablee. Fruits included Waterloo Strawberries, Superlative Raep berries, Brown Turkey Figs, Golden Drop Gooseberries, Foster's Soedling and Black Hamburgh Grapes (Silver Bankninn

## Medal).

From Mr. Hecier, Jersey, was exhibited a red Grape Currant, named Comet, shown with very largo berries, nad bearing about twenty in a bunch; and a white Grape Carrant, named Eclipeo: also Graville Griant Gooseberries.
The Mesars. Rotisohild, Gunnersbary Houve, Acton, W. (gr., Mr. Jan. Hudson), showed remarkable Black Tartarian Cherries from a west wall. The trees were planted in 1850 , subeoil gravelly; also. Cherries Bigarreau Napoleon from a subeoil gravelly; also. Couth wall, trees planted in 1850 , A note which nccompanied the fruit said that some years since the trees commenced gumming, and showed signs of dyiug, but this had been quite ming, and showed signs of dyiug, but this had been quite Medal).
There were numerous Melons shown for Certificates, but Awards were given to two only, both of which were ahown by Mr. S. Mortimer, Rowledge Nursery, Farnham. Six fraite of each variety were shown. Epicure is a medium-sized fruit, yellow, with close white netting, and green flesh; and Nugget is rather smaller, straw-coloured, with coarse, netting, and rose coloured feen.
Several Melons were shown from Mr. A. J. Simpson, gr, at the Horticultural College at Swanley, Kent, including Hee Majesty, Gilbert's Golden Queen, Emprets, \&c. Also Peachen Noblesse and Royal George. Other Melons exhibited were from Mr. A. Guy, Hertingfordbury Part Gardens, Hertford: Earl Percy, Syon House, Brontford (gro. Mr. G. Wy then); Mr. WM, SmyThe, Basing Park Gardens, Altom: J. R. PLatT, Enq.en Bruntwood, Cheadle, Cheshire (gr., Mr. Richardson); and from the Marquis of BUTE, Cardift Cantle (gr., Mr. A. Petti grew) The three Melons grown by Mr. Pettigrew were ex ceptionally large yellow fruito. The name did not transpire, but they were generally considered too large.
G. A. Farimi. Esq., Dartmouth Lodge, Forest Kilu, exhibited a basketful of black Raspberries. The fruits were amall, and the parentuge or orgin was not apparent.
Wilberforce Bryant. Esq, Stoke Park, slough (gr., Mr. David Kemp), exhibit
Humboldt and Pine-apple.
Mr. Ward, gr. to the Earl of Rapyon, Longtord Caetie, Salisbury, exhibited a Poa named Longpod Queen; the pode were long, and well filled with good-sized Peas, about ten in each. Mr. A. Guy had brat and pode of Emen, MoMullons GILbERT, Burghley Gardens, showed some pretty little Cauli-
flowers, named Burghley Pot; and Mr. WinhuM Cabmictael eahibitod some seedling Strawberiies. A oollection of vegetablen. including Peas, Beans, Lettuces, and Cabbages, wan exhibited by
Garden, W.C.

## Lecture by Mr. Francis Darwin.

The lecture by Mr. Darwin was on "The Effect of Darkness on the Form of Plants," and in commencing the abject Mr. Darwin said that before the phenomena of etiolation or blanching could be satisfactorily and concluaively explained more fact were required, and these facts were auch as could be furnished by horticalturista. This was one reason that suggested the subject of the present lecture, that those engaged in horticulture might be indaced to take an interent in the queation and commanicate th results of their experiments to the acientific world.
Mr, Danwir then proceeded to ays, that if a plant was subfrected to continual darknesa, the most striking effect produced was one of colour, the stems becomes white and the leaven yollow, but it was more particularly to the difference in shape plant sanmee ander sach conditions that he wished to apeak on the present occarion, with a view to explaining that the monormal, wrowth which takes place is not a pathological condition, but rather the result of adaplation to exvironment or ofrcumstances. It epotato or seedling Bean be hept in darknese, an olongated etem will be produced, and but minute lenves formed. In the case of cereals, the leaves were elongated, not dwarfed. Light in eneential to the nutrition of plants. So true was this that Stephen Hales and others in bia day thought that light was a material food for plants, whereas it is now recognised as a necessity to assimilation only. In the abeance of light the plant can abstract no carbon from the atmosphere. It had been held that etiolation was a purely pathologioal state in the plant, but this Nuw is probably dead, except that Sachs still holds it. From such a view. Mr. Darwie wished to express his dissent, and to put forth a different one altogether. Mr. Darwin had worled tothis quection a $\quad$ good deal, and when about to publish the at kis quection a good dea, and when about to pubish the reault of his research, he found that
The view of the phenomena which the lecturer favoured was, that it was merely adaptation, or response to a stimulus to overcome, or get the better of an sccidental environment. The diffaremce of the two theories was explained thus, rickets in a scrotulous ohild is produced by injudicions leeding [and hereditary endowment]. but the symptoms do not in the least suat the ohild to eccape from its malady, the coadition is parely a pathological one. On the other hand, a Potato set, if deprived of light, will continue to grow 18 if it were under the soil, the energies of the whole plant will be thrown iato producing a long stem, and this to the neglect of the leavee. A seedling Bean would do the same thing, viz., continue to grow as if it were seeking light through theronl, and not until the light-which in this caseisthe "signal of lllumination" to the plant-is obtained will the growth be altered. The plant is deceived in the absence of this signal. The Scarlot Runner grows with a booked plumule while under the surface, but on entry into an illuminated area, the point is moon straightened, but if light be withheld when the shoot is through the soil, the point remains hooked. The nignal of light is necemary to remove this condition, which in itself, is an adaptation to circumstances, the hooked plamale being better able to pierce the soil without injury, than if it were struight. Mr. Darwin then spoke of the gensitivenese existing in the petals of the Grocus to chauges of temperatare, 50 mach 10 , that if the temaperature fell $1^{\circ}$ Centigrade, a movemeat in the petals my bs observed. By this means the pollen wian protected artions the effect of rain. A species of fangus called Copriacos, normally developed stalk and a cap of con siderable sise, but it it be subjected to dariness, the plant will throw all its energies into maling a long stalk at the expense of throw all its energies into maring a long atall at the expense of
the cap. which will be very amall. The stally in this caseis much the cap. Which will be very amall. The stall is this caseis much
lengthened in order to reach the daylight, where the opores lengthened in order to reach the daylight, where the apores
may be disueminated. The gemme or buds of hiverworte may be digominated. The geramse or buds of Liverworts
germinate only is the light; the gemme remain inactive ferminate only in the light; the gommase remain inactive that caused these genmae to remain inactive for a short time, during which the temporary darkueas may be removed whereas did they germinate, they would do so, with the result that they would die.
In whand to flowering plante, il a Narcisuns be deprived of light, the long seape it produces is another eflort to get out of light, the long seape it produces is snother eflort to get out
of the darkness, where along the pollen it carries can be made of the darkness, where alone the pollen it carries can be made
useful. If a plant has oniy radical leaves, the only chance is useful. It a plant has oniy radical leaves, the only chance is to extend theee, the distribation of growth is altered in every
reapect, and in all plants. Mr. Darwin, referring to Sachs classic paper of 1863 , in which he refers to the Hop or Sweet Potato as cases of netural etiolation, said that from Sachs standpoint this was not a happy word; but viewing all ctiolation as adaptation, then these cases were clearly natural. A climbing plant, in order to eacape from the earth line into the air, throws most of its onergy ints producing a long stem, and ubually malres a swall swount of other material only which is exactly what occurs in all cases of otiolation. Ficts ware the food of all hypothesis, and for theo he hoped he might look to horticuiture.

## WIMBLEDON $A N D$ DISTRICT FOETHCULTURAL

Jucx 3 - The twenty-third annal exbibition was
held os the sbowe date, in the grounde of Drammont,

Wimbledon Hill, kindly lent for the occasion by the President of the Society, T. E. Crocker, Esq. The entries were more numerous than in previous year.

## divisior I-Open to all Comers.

For a group of miscellaneous foliage and llowering plants, a vory creditable arrangement gained
Luff, gr. to J. F. Schwanv, Esq., J. P
In the class for four stove and greenhoase plants, in or out of flower, the leading prizes were secured by Mr. G. Hutton, gro to - Prere, Keq., and M. A. Methven, gro to W. Kerler, $\mathrm{gr}_{\text {l }}$ K., Ferawood. Whilst for aix foliage or flowering plants, Ks .., Ferawood. Whist Hutton, and Luff.
There was a keen competition in the class for four exotic Ferns, distinct, the prize-takers being Mr. J. Bentley, gr. to Capt. Boswortif

## Hutton

In the class for four Fuchsias, distinct, open to all members, oreditably flowered examples were staged by Messrs, Mills and Law, who took the prizes in the order named. Zonal Pelargoxiums gave an effective bit of colouring to the show.
For twelve plants in pots not exceeding 6 inches in diameter, Messers. Law, Bentiey, and Chandler were the leading Mesars. La
Whilloblo
Well-bloomed Cloxinias were stagea by Messrs. Mills, Hutton, and Bentley.
Six well-flowered examples of Begonias were shown by Mr A. Slegge, gro to Mrs. DAUY, Copse Hill. Mr. Skegge again secured the premier position for four excellent Caladiums. Well-coloured Coleases were exhibited by Mr. C. Bentley.
The class for twelve plants, suitable for table decoration, was a good one, the prizes going to Mr. Mclregor, Mr. H. Alderman, gro to - Hatrield, Esq., Mordea Hall; and Mr. J. Bentley.

The successful exhibitors in the classes devoted to specimen The successful exhicitors were Messrs. Mew, Thornton, foliage and flowering plants were Messis.
The best twelve cut blooms of Roses were contributed by Mr. J. Bentley,
Well-finished examples of black Grapes (three bunches) were -hown by Mesars. Bentiey and Methven. Mr. A. Methven was lst for three bunches of white Grapes. In the class for six Peaches, well-coloured fruits were saged by Messrs. Luff, Alderman, and Bentiey, the last-named exhibitor socuring the first position for six good fruits of Nectarines.
For thirty-six fruits of Strawberries, the leading exhibitors were Messra. Alderman, Hatton, and Methven. Mr. Alderman aggin had lst honours for four distinct hinds of fruit, followed by Messrs. Bentley and Luff.
A collection of vegetablee, in six kinds, was excellent from Mr. Tharnton.
In Division 2, fos "single-handed" gardeners residing within the district, a group of miscellaneous foliage and flowering plants was creditably exhibited by Mr. T. Chandler.
In the division for amateurs not employing a gardener regularly, the lst prize for six miscellaneous plants was taken by Mr. J. Browr, Norman Road, Wimbledon.
The coltagers of the district made a very good display of vegetables, flowers, and fruit.
Messrs. Thomson \& Son, The Nurseries, Wimbledon, sent a beautifal collection of hardy flowers.

## THE PEOPLE'S PALACE HORTI- <br> CULTURAL.

JULI 4, 5, AND 6.-The third anmmer show took place in the Queen's Hall of the People's Palace, on the above dater, and, both in extent and quality, wan a conaiderable advance on the two previously held.
Not only was the spacious hall quite filled with exhibits, but the large winter-garden also. How heartily the East End Londoners have entered into the spirit of the thing was thown by the large number of groups of plants entered for a 38 feet, and also an 18 feet ground space, and also for 18 feet and 9 feot table-spaces; while collections of six and three plants, as well as many single specimens, were numerou; and there were Fera-cases, model gardens, fruit, cut flowers and vegetables also. In the small greeuhouses, mainly of homely constraction, put up at the backs of their residencea by the Fast End gardeners, capital specimens of Plumbago ospensis, India-rubber plants, green Dracrenas, bhow and zonal Pelargoninms, Begonias (foliage and flowering), Gloxinias, Succulents, Lilies, and many other things are grown remarkabiy well, and they speal volunnes for the care and attention given to them, not a few of the East End gardeners being engiged in the City all day. The favourite window-plants are Fuchsias, trained to woolen-trellises, very larke, finelygrown, and flowered; Pelargoniums, Creeping Jennies, Asp:distra, Aralia Sieboldi, sc. In some of their bacis gardena can be seen planted out aubjects that astonish one that they can be found to grown and blown there. The favourits hardy annual of the Rant Rader appears to be Virginian Stock.
Prizes are offered for the beat kept gardens, and also for window-bozes, and it was necessiry for the jadges to spend the best part of two days in visitiog them, as they laid bitween Aldgate, Limehouse, the Rast Iedia Docks, Stratiord, Hacknep, and Homerton. It is not too much to say some of the best kept gardens were forad in the most unlikely places, and in order to equalize the competition, the gardens visited are divided into two sections: those in open and somewhat airy localities, and those in which they are more crowdet, and the conditions of culture less favourable. It is to with the window. Doxes.

Certain honorary collections of plants, \&c., greatly helped the effect. From the Erogmore Gardens, Mr. ThoMas sent very fine and imposing table of plants; from His Grave The
DUKe or Fire, arranged by Mr. Osborn, the gardener at Duke or Fife, arranged by Mr. Osborn, the gardener at F. A. BeVan, Esq.. Trent Park, Barnet (gr, Mr. W. H. Leas); F. A. BeVan, Euq. Trent Park, Barnet (gr, Mr. W. H. Leea); W. PAUL \& Sovs, Waltham Cross (mainly Roses) ; also from Mr. Holmes, Frampton Park Nursery, Hackney, a fine groap on the floor; and some charming table decorations from M. J. R. Ceard. Round the sides of the hall was a very handsome group of plants from S. B. Bouliron, Esq., Copped Hall (gr., Mr. W. M. Wright); from the DUKE OF Norfolk, and others; and so some very fine features were secured.
Late in the afternoon, their R.H. The Duke and Duchew of York visited the show, accompanied by the Duke of Fife the President, when an address was presented to Their Royal Highnasses, and the Dukr of York declared the exhibition opea. The members of the commi ttee were then individually presented to Their Royal Highnesses, and they made a tour ch the show, being much interested in what they saw. There every reason to believe the exhibition proved a financial success.

## CHERTSEX, WALTON, AND

 WEYBRIDGE.Jorr 6.-The thirtieth annual summer exhibition was held this year in the grounde attached to Out lands Lodge. Stove and greenhouse plants formed a leading festare of the exhibition, and they were generally well grown.
For a group of 14 bs 7 feet, five competed, and Mr. Bidge gr. to C. SWINFEN EADY, Ekq., Oatlands Lodge, was an ewg
winner. The 3nd place being taken by Mr. G. J. Cook, gr, to winner. The 2nd place being taken by Mr. G. J. Cook, gr, to Mr. F. Hopkins, gr. to Mrs. Wodderspoon, The Chestnutas, Walton-on-Thames, was lit for a smaller group, with capital arrangement; and 2nd, Mr. W. C. Pagram, gr, to d $^{\text {. }}$ Courtney, Esq., The Whim, Weybridge.
For six flowering plante, Mr. Jacques was the most me cessful. Fine foliage epecimens were best represented by Mr. Osman in sir varieties, Mr. Gardener winning a similat position for four. Exotic Ferns are usually seen in exceliaat condition here, this year proving no exception.
Caladiums, Achimenes, tuberous Begonias, Gloxinias, and Pelargoniams are well shown. the principal prizes being awarcaed to Mesars. PROTHERO, JACQUES, STEDMAN, and OSMAF, For siz table plants, lst, Mr. Hopkins, with bright-colound examples of middle size.
Cut flowers made an effective display: especially Rooe stove and greenhouse flowers wicens flowers by Mr by Maskn. Mole House, Horsham, in twelve varieties.
Frult was contributed in quantity, Mr. Osman had the beat Coilection of six kinds ; the best two banches of Black Grapes, and dish of Cierries. Mr. GARDENER was ist in the class lot water. Mr. J. Buxton, gr. to J. A. Foster, Eeq.e. Fernlanda Chertsey, took list prize for one dish of Waterfoo strawberried Mr. J. OSMAN was, as usual, invincible in the principsl egetable class, that for eight kinds, and he showed eztremely well.
Messrs. B ARr \& SON, sent from their Long Ditton gronadis inchading many choice suojects.

## IPSWICH AND WOLVERHAMPTON HORTICULTURAI EXHIBITIONS.

We bave received reporth of thene important horticultural exhibitions juat as we are going to press, we must, therefore, postpone their publicatios till our next issae.

## Nurbery Notes

Carnations at the ruyal exotic NURSERY, CHELSEA.
Stannuors efforts have been made to overcome the difficulties created by a great demand for platio and by the anusaal heat of the season, and to furnill a creditable diaplay of ample beda of Picotees and Carnatione at this nursery. The results as regard the whole display relect mach credit on thone re sponsible for this department, and we found os Wedneaday a pretty ahow if not a "blaze of colours. The plants are dwarfer than in most years we ie member to have seen thew, and the "grans" is in the older varieties rather aparse, but fairly abundald in the newer ones, and especially is this remarked it those of Mr. Martin Smith's raising.
Wo will take these first, as they overtop all the others in height, and beat them generally in with floriferousness, and freedom from burst calycen.
Cardina! Wolsey, a yellow ground flower of the Vietory type, bat aperior in colour and form; Dakt of Orleans, aino yellow, but differing fom the fitw named: the flowers large and form excellent-it in
a vigorone grower. Hayes' Searlet is a splendid self of vigoroas habit; thas far the finent self of acarlet colour raised. King Arthar is likemise scarlet with a crimson tinge in it, the flower is large and the form very good; the grass is vigoroas and broad, and habit good. Mephisto it a crimzon self, resembling the old Clove, bat deeper in the tint; the form of the flower leaves nothing to be desired. Mise Andrey Campbell is a vigorous yellow self, large and diatinct. Mias Ellen Terry is one of the best of the white Carnations.

Of other raisers' varieties we remarked Cantab (Gifford), a very free border variety, with the fragrance of the old Clove: Germania, in large numbert : thin in atill one of the finest Carnations of its colour-yellow; Caro Roma, a besatiful parple welf; Martin Cahuzac, a Continental variety-deep velvety crimon flower -moat floriferona, of dwarf habit: a very nice variety; Mru. Gifford, a fine white, very free, either as a pot or border variety; King of Scarletn, King of Crimsons (Douglam, 1892), a neat flower, of fine quality; Alma Newman, of a shade of red, a free bloomer, and strong compact habit, height $2 \frac{1}{2}$ feet; Dachess of Fife, a tender shade of pink, large, pleasing flower; Lady Nios Balfour, pink tinted with chamoise, erect petals, flowern of middle size, and well formed; Dachese of York-a flower in colour resembling Sonvenir de la Malmaison, very fall, and of more than the usual size (Gifford, 1894); Dachean of Portland, one of the bent of the fancies; Rowe Celential ; Joe Willet, a bright dwarf, very hardy acarlet self.

Many of the old favourite varietien were found in quantity, and there are coloure and forms of flower, and habit of growth, to uit everyone taste to be found in this very select collection. The Carnation in essentially a townsman's plant, and in this town nursery it may be seen grown in momething very near perfection. A numerous collection of varietie of Picotees are likewive caltivated, but these pretty flowern always lose by being planted near Carnations, with their more exacting claime on the beholder's attention.

## The Weather.

[The torm "accumulatod temperaturo" indicates the aggre gate amount, well as the daration, of degrees of temperatare above or bolow $42^{\circ}$ Yahr. for the period named: and this combined result is expreceed in Daydegrees - a "OD Day-degree" signifying $1^{\circ}$ continued for an inversely proportional number of hours.

| FEMPKRATU |  |  |  |  | RADPALI |  |  | mient Sux. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ACOUNOLATED. |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \frac{8}{4} \\ & \frac{6}{3} \\ & 9 \\ & 98 \\ & 9 \end{aligned}$ |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ |  | $\begin{aligned} & \text { 10the } \\ & \text { Inch. } \end{aligned}$ |  |  |  |  |
| 01 | 90 |  | 20 | + 282 |  | 111 |  | 18 |  |
| 11 | 104 | 0 |  |  |  | 90 |  | 30 | 37 |
|  | 113 | 0 |  |  |  | 94 | $12 \cdot 2$ | 26 | 34 |
|  | 119 | 0 | + 12 |  | + | 82 | $9 \cdot 1$ | 40 | 39 |
|  | 112 |  | + 40 |  | 1 + | 54 | 10.2 | 34 | 37 |
| ${ }^{1}$ | 143 | 0 | - 24 | +333 |  | 70 | 8.3 | 38 | 39 |
|  | 104 |  |  |  |  | 91 | 120 | d 43 | 35 |
| , | 111 | 0 |  |  |  | 81 |  | 35 | 38 |
| 8 | 11. |  |  |  |  | 75 |  | 34 | 3 |
|  | 192 |  |  |  |  | 101 | 13 | 23 |  |
| 1 | 107 | 0 | $-42$ |  |  | 84 | $15 \cdot 2$ | 25 | 37 |
|  | 120 |  |  | 248 | 1 | 88 | 3 | 68 | 50 |
| the following:- <br> 0, Scotland, N. Principal Wheat-producing Districts1, Scotland, E.; 2, England, N.E.; 3, Engiand, E. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Princtpal Graxing, be., Districts-b, Scothand, W.:7. England, X.W.: 8, Rugland, S.W.; 9, Ireland, X.; 10. Irolaad. 8.: "Chanrol Tlands. |  |  |  |  |  |  |  |  |  |

THE PAST WEEK
Tere following summary record of the weather throughout the British Islands for the week eading July B, is furnished from the Meteorological Office :

- The wather was very unsettled and showery daring the early part of the week, with thunderstorms in many places. After the raiddle of the period, however, a gradual improvement took place, and by the end of the week fair dry weather had again become general.

The temperaturs differed very little from the mean, but was slightly above it in the north and east of Scotland, and below it in most of the English districts, as well as in the south of Ireland. The highest reading was observed as a rule on the 6th of July, and ranged from $71^{\circ}$ in 'Scotland, W. and England, N.W. $0^{\prime}$ to $76^{\circ}$ in the 'Midland Counties and Ireland, $\mathrm{N}_{0} 0^{\prime}$ ' and to $77^{\circ}$ in 'Scotland, $\mathbf{E}$, and Eaglend, S.W: The lowest readinga, which occurred mostly on the 5th or6th, werm rather low for the time of year, the thermomator falling to $45^{\circ}$ or lesa, in nearly all districts. and to $40^{\circ}$ or lows in ' Scotland, ${ }_{W}$., England, S.W., and Ireland, $N .{ }^{\circ}$
"The rainfall was less than the mean in the extreme northern and north-western parts of the Kingdom, es well as in the 'Channel Islands,' but in most other districts there was a slight excess.

The bright sunshine varied greatly in amount in different localities. In 'Ireland, Scotland, N., and Eugland, N.E. and S.,' the number of hours recorded was below the average, but in most other districts there was an excess, slight in many cases, but large in 'England, S.W. and the Channel Islands.' The percentage of the possible duration ranged from 16 in 'Scotland, $N_{0}$ ' and 23 in 'Ireland, $N_{0}$ ' to 43 in 'Scotlend, W. 54 in 'England, S.W.,' and 67 in the 'Channel Itlands.'

## Market 8

## COVENT GARDEN, July 11.

[W0 cannot accept any responsibility for the subjoined reporta. They are farnished to us regularly every Thursday, by the cindness of several of the principal aaleemen, who revise the list, and who are responsible for the quotationt. It must be rememberod that these quotations do not represent the prices on any particular day, but only the general averages for the weer preceding quality of the samples, the supply in the marlet, and the quality of and they may fluctuato, not only from day to day, but often several times in one dav. KD. 1
Out Flowers.-Average Wholrsale Prictes.


## FRUITS AND VEGETABLES

Borougr: July 9. - Quotations:-Pean, 2s, to 2m.8d per bushel: Horseradish. 18. to 18. 3d. per buvdle: Apples, Tasmanian, bs. to 8s. per case ; Gocseberties, 1s. 6d. to \% \%s. per half-sieve: Strawberries, 1s. 6d. to 2s. per peck: Currante 2s. to 4s.: Cherries, 18. $8 d$. to 2s. $9 d$. per half-sieve.
Spitalfiklds: July 9. - Quotations:-Cherries, 8s. to 3s. $6 d$. per half-sieve; Currants, black, 3s. 6d. to 4s. per halfsiere; Broad Beans, 18. 6d, to 28. per bushel; Peas, 2s.6d. to 3s. per bushel; Cabbages, 4s, to 5s. per tally; Carrots, 2s, to 2s. 6d. per dozen bunches ; Turnips, 2s. to 3s. do.
Stactrond: July 9. -The trade at this market during the past weok has boen brisk, there being plenty of busers, and an abundance of all kinds of produce. Quotations: Oabbages, 18. 6d. to 48. per tally; Caulifowers, 1s. to 2s. per dowen ditto, 4s, to $88.6 d$. por tally: Tarnips, 18 to 1 d .6 d . per dozen bunches: Carrots, 1s. to 1s. 6d. per dozen bunches; Mangolde 10s. to 17 s . 6d. per ton: Oherrien, 3s, to 48 , per halt-aieve Black Curfants, 4s. to 4s. 8d, per half-aleve; red ditto, 28.0 od to 4s. $4 d$. per hall-sieve: Gooseberries, ripe, $2 s$, to 2s. $8 d$. per half-sieve: ditto, green, $3 s$, to $3 \mathrm{~s}, 6 d$. per flat; Strewberries 8. $6 d$, to $2 s, 6 d$. per peck; Raspberries, 3s, to 4s, per dozen punnets: Tomatos, English, 4s, to 78. per dozen pounds: Green Peas, 3e. 9d. to 58. 6d. per bag: Windsor Beans, 38. to 3s. Bd. por bag.
Farmingdox: Ju'u 11.-Quotations:-Cabbage. 1s. 3\%, per dozen; Turaips. 3s. to 4s. per dozea bunches; Carrots. 18. 6e. to 4 s . 6d. do.; Marrows, 3s, per dozen; Spring Onions, 3s. per dozen bunches: Cucumbers, 1s. $3 d^{2}$, to 25.80 . per dozen; Chorries, whiteflesh, 4s. per half-tieve; do., black, 2s. ed. to 38. 6d. do.: Gooseberrien, ripe, 24. 6d, bo 3s. do.; Currants, rod, $2 \mathrm{~s} .6 d_{\text {. to }} 8 \mathrm{~s} .6 d_{\text {, do. }}$; do., bleck, 4s. to 4s. 6d. do.; Pineapples, 24. 6d. to 2s.6d, each.

## CORN.

Averages. - Official statement of the average pricen of British Corn, imperial measure (qr.), for the week ending July 6, and for the corresponding period last yetr $:=1895$ : Wheat, 25s. 7d.; Barley, 10s. $9 d_{0} ;$ Oats, 16s. $4 d_{0}$; 189s: Wheat, 248. 6d. : Barley, 25s. 7do; Onte, 19s. 6d.

## ENQUIRY.

- He that quastioneth much ahall hearn nuwh."-Bдoor. Tomato Fruits not Swelling.-A corrempondent aend the following:-"I should eateem it a great favour if you would kindly tell me the reason why the firat two or three trusees of my Tomatos bear such very mall fruit, no larger than Cherries, and quite ripe. The frait neem: to be nwelling all right enough half-way up the plant, and making fine large fruit. Should I have atopped the leader, nay, when it had got 4 fest higb, to cane the lower transes to awell off, and then let it grow again? My planta are 8 or 9 feet high now. In a later house I have 950 plants in, the bottom truses are swelling off all right, and I never atopped them. My three earlieat houses I planted got a check from some aalt or nomething that had been in the manare anknown to me, and all turned black aoon after they were planted. Would that be the cause? They hava never affered for want of water. Nurseryman.

* Owing to the large increase in oner circulation, we are reluctantly under the necessity of going to press some hours earlier. Our contributors, who well know what this implies, woil cinaly aid uas by sending, wor the Wednesday.
- Plavis, Frutra, ETC., To eis Nabied.-Comrespondento amaing plants or fruits to be named, or asking quadtom a obtuing ass annowor to their enouivias ith the current weet specimens should be good ones, carefully packed and nuwbersd, and not nore than site should be sent at ome time. Lowes only, of Floride varieties cannot, as a rule, be named.
Asparagus tenuisenus: $J, 4, F$ It does not reckon as a "flowering plant" in the ordinary sense of the word, as used by achedale-makers, and we think that your collection would be disqualified if this plant formed a part of it. Among foliage plant this pecies of Asparagus would be admisuible
Boors: A. B. Index Kawensis, Frawde, Amen Corner, London, E.C. Four vols, at 2 guineas each. Foreman. There is no ons book which treats directly of mursery gardening. Ady good garden-
ing Manasl ach ae My Gardener, by Mr. H. W. Ward, Longford Castle Gardens; Hardy Flowers, by W. Robinson (Macmillan \& Co., London); Stove and Greenhouse Plants, by B. S. Williame \& Son, Victoria and Paradise Narseries, Upper Holloway; The Nursery Book, br L. H. Bailey, The Raral Pablishing Co., Now York, or through a foreign bookseller in London. If you intend to grow only certain plants as Carnations, Chryasathemama, Clemativ, Datch Balbs, Tomatos, \&c., manauls on these and others may be obtained at the Bazaar Office, 170 , Strand, W.C.
Carkations: G. F. The plants are apparently affected with eel-worms. Nothing can be done except to turn out the soil and get frenh.
Catebpillars of thi Sawfly on Goobibbrbt: P.B.S. To guard againat the recurrence of this pest, you ahould ahovel away the whole of the soil beneath the bushes as far as the brancher extend at the very least, and to a depth of 4 inches, charring it, or barying it deeply in the soil in ame dietant part of the garden, replacing it with fresh garden aoil, or lonmy soil from outnide the garden. This may be donest any time from the present till the end of January. If it be done in frosty weather, there should be no haste in replacing the woil taken away, as exposure to hard frost in likely to do good by destroying any chance grabs that may have been left behind. A slight dreasing of gaslime at that time might alao be beneficial in the ame way. As you nay, the quasia-water clears the buhes of the caterpillary, but it doen not clear the soil of them.
Corrbction.-For "tuan chikee," p. 799, in vol. xvii. of Gardeners' Chronicle, read "taisan chikn."

Holliss: W. C. The leaves are attacked by a naw-fly. Encourage the birds. We do not think any permanent injury will ensue.
Lawk Dressing: $M . B$. Lawrence. At this aeason a mild kind of liquid manure may be used. In the antamn and winter a dreasing of aifted clayey loam, with wood-azhes and aifted charred garden refuse, charcoal-duat ahould be applied regularly all over the surface, laying it on so that the tips of the grase can be jast seen throagh it. The woodasher may be uaed in the proportion of one-tenth of the whole. Well-rotted farmyard or table dung does good, but the effect. are less lasting.
Names of Puant s: N. C. Veronica spicata, A. J. B. 1, Peach-leaf rotten; 2, Cherry, Late Duke; 3. Lychnia chalcedonica; 4, Galega officinalis alba; 5, Veronica picata.-Kintore. Gentiana lutes, Lilium Hanzoni.-H. C. W. Sparrey, Symphytum asperrimum,-A, B. 1 and 2, forms of Dianthus carthasianornm; 3, Dianthas euperbus; 4, Campanula grandie; 5, Campanula Hostii.D. T. F. The a-called crown or mumay Pea, figured in Gardeners' Chronicle, p. 44. January 11, 1873, fasciated variety. 1, Achillea Millefolium; 2, Orobanche minor; 3, Salvia verbenaca; 4, Myriophyllam verticillatum; 5, Prunella valgaris; 6, Chenopodiam bonam Henricas. - F. W. W. 1 , Sedum album; 2, Sedum rupetre; 3, Sedum rapeatre; 4, Campanula pulla; 5, Lyaimachia nummularia; 6, Astrantis mejor. - Constant Reader. 1, Abutilon Megapotamicum, better known an A. Vexillarium ; 2, Ulmui campentrie, variegated form; 3, Coologyne ocellata; 4, Dendrobiam cramenatum; 5 , Dendrobiam mesochlorum; 6, Dendrobium chryanthum.-Judy. Carnation W. Toby.-J. R, R. Lilium Martagon. -F. Y. 1, Colutes arborescens ; 2, Euphorbia cypariasias.- J. $T$. The green form of Zebrina pendula, ny. Tradencantia zebrins.-T. R. Rona lucida.-J. Heath. 1. Pteris longifolia; 2, Adiantum hispidalam; 3. Cyrtomiam falcatam; 4, A plenium bulbiferam; 5 , Pteris cretica albolineata; 6, Aspleninm trichomanes. - Germany (noletter). Dendrobium grationisnimum; the other probably Phlox maculats var, candida. -S. $H$. W. The large Cattleys is C. Waracewiczii, commonly called C. gigas in cardens; the others, C. Mendeli and C. Monsise; No. 4 in also a good C. Mendeli ; No. 5, Odontoglonamm pulchellum, not Oncidium. The photograph duly came to hand. Many thank.
Narciesus: J. H. T. The bulbe were subjected to bad treatment after they had flowered in January, 1893, the frost doubtlem destroying the tender learem grown in heat. They were weakened thereby, and failed to give atrong offiets. The early forced bulbe thould not be placed out-of-doore, and receive "nol attention" till they are again planted. It is better practice to keep them in cold frames.
protecting them from frost, affording them water in moderation till the leaves mature, when they may be dried off, and the bulbs shaken out of the soil, and fully exposed for a week or two to the sun. A period of from one to two yeare should elapse before Narcissus are forced a second time. Your noil appears to be of a most unpromising nature, needing mach amelioration by mixing it with garden refuse, burned earth, fine coal-anhes, strawy table-dang, and, \&c. Cow-manure, either decayed or not, is of small value in such land, and to place it at the base of the balbe in that or any other soil is a dangerous practice with Narcissus, which are plants that are injured by contact with manures. You would find decayed vegetable substances, leaf-soil, \&c., mach more suitable. Qaick-lime would do your clayey loam some amount of good by its mechanical action if dug in before allowing it to slake. We do not think that the drought of 1893 caused any injury to the bulbs, the land being of too retentive a nature to be affected by it; or that the late severe winter was injurious. As you sappose, soot makes a good sort of topdressing, containing, as it does, considerable quantities of ulphate of ammonia.
Narcissus, \&c. : T. Bros, and W. W. The balbe are affected both with mites and fungus, but the bulbs look so healthy that they may outgrow it with las manure.
Pinks: S. B. Your seedling, white Pink is a little larger than "Her Majenty," and the habit you deacribe is an improvement.
Sifage Distribution: D. W. C. McI. a broad feeding-canal hould be made with puddled aides and bottom at the higher part of the field, to hold sufficient sewage to irrigate a large portion of the lend. This whould be made with a slight fallasy, half an inch in $: 0$ feet. From this canal other amaller canals should proceed, at 12 to 15 feet apart at right angles, each being fitted with a sluice or penstock of an ordinary description in wood. It would be better to divide the field transversely with one or more feeding-canala, and make the intervening land quite level and true; then by allowing the sewage to ran into the minor channels from the main feeder until it reached the top or the sides of these, or half an inch above them, the sewage would apread over the anface gradually and without any rush. By this syatem of ahallow draina any part of the land could be asturated at will; and when sufficient moisture had been afforded, the aupply must be cut off by cloning the sluices. If the land is level, or nearly so, it will not be a difficult matter to irrigate it in the manner deacribed. Very irregular or hilly land, which would coat heavily to level it and layout drains, could be irrigated by means of a col-lecting-tank and an undergroand syatem of iron pipes, the sewage being distributed from standpipea by means of a hose or a water-barrow.
Tomstos: Treseder and $W$.W. Your fruits are attacked by a fungus known an "black apot." Remove each fruit as soon as the disease is noticed. Save seed only from healthy plants.-T. G. Your plata are affected with funga. Burn all the affected plantn at once, and apray the leaves with weak Bordeaux Mixture, taking care not to use it on any of the berries that are near the ripening stage.
Tomatos not Swelema: Nurseryman. Will you kindly aend up asmples of fruit from one plant that exhibite the undesirable peculisrity that you mention. We print your letter in another column, in the hope of eliciting the opinions of our readers.
Tomatos Splitting: W. J. Excensive watering probably following on a period of drought. The same thing occurs in atone froit, Melons, \&c. We do not know anything of the peculiarity of Chemin Rouge.
Trufples: G. E. E. There is a book in the French language by M. Chatin, which treats of the culture of Traffles. We would, however, advie Jou to make eaquiries of the secretary of the Socié!́ d'Horticulture de France, Rue de Grenelle 84, Paris, who would be pleased to afford you information on the aubject.

Commonicationg Rechived.-O. Q. Wyatt-E. C.- W. E. G. -D. T. F.-H. H, DO, - A. H, -W. E. Go -M, M, Barber



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$\qquad$ Tomato fruits not sweill-
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Anthurium, bracteate form of Azalea-house at Walton Lea, Wärrington Cyprese macrocarpa var. Guadeloupensis Hemerocallis aurantiaca var, major Polypodium, a proliferous

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## Preliminary Notice.

TWO DAYS' SALE.
The UNSOLD PORTION of the wILSON COLLECTION

$\mathrm{M}^{\mathrm{B}}$ESSRS. PROTHEROE AND MORRIS have received instruetions to 8RLL by $\triangle$ UCTION, at their Central Sale Rooms, 67 and 68, Cheapaide, London, E.C., on
TUUSDAY and WEDNRSDAY, Auguat 27 and 28,1895, TUESDAY and WEDNRSDAY, Auguet 27 and 28 , 1895 ,
withont Reaerve, , Ue Unald Portion of the WIISON COL
LRCTION of ORCHDES.

WITHOUT RESEBVE.
The Sale; contains, among others :-
Sobralia
plante) plant ©
Csttleya, Schroderxa albu
OR Reineckiana - Reineckiana

Oöontoglosumm
numg
Cuttleya Gaskellinna alba Leelia olegans
Cypripediuma Morganies Bur fordiense
Letia elegans Blenheimensis illuntei
Meears, SANDEMAND CO. will offes in this Bald, Without Thery finest OREBERTVE, a large number of grand plant of the Cry heet ORCAIDS, ineluding the new white "bellatulum." C. White fiowered Cattleys labiath with crimson labellaume ing,

LFELIAS, CATTLEYAS, new HYBRID SOBRALIAS.
NEW DENDROBES, CATTLEXA GRGAS SANDRRE

Tuesday Next.-Cattleya aurea $\triangle$ GRAND IMPORTATION, COMPRISING 150 LOTS. The plants now offered were collected in same districts whence have emanated so many grand and ondiners. ESSRS. PROTHEROE AND MORRIS will

MESSRS. PROTHEROE AND MORRIS will SELL the above by AUCTION, at their Roome, 67 and
eapside, London, E.C., On TUESDAY NEXT. July 23 , 68. Cheapside, London, E.C., on TMessra Hugh Low
at half-past 12 occlock, bo order of Mer
On view morning of Sale, and Catalogues had.

## Tuesday Next.

THREE DIRECT IMPORTATIONS OF ORJBIDS FOR UN-
$\begin{aligned} & \text { RESERVED SALE, COMPRISING:- } \\ & 650 \text { CYPRIPEDIUM PHILIPENSE }\end{aligned}$

$$
\begin{aligned}
& \begin{array}{r}
150 \\
380 \\
35
\end{array} \\
& 35 \text { ANGREOUUM SPECIFS } \\
& 30 \text { BULBOPHYLLUM SPECIES }
\end{aligned}
$$

Also a ${ }^{\text {a }}$ OBA, \&c. $\mathbf{M}_{\text {SRLL }}^{\text {ESSR }}$ the above by AUCTION at their Central sale Rooms, 67 and 68 , Cheapside, London, E.C.o, on TUESDAY NEXT, July 23 , at half past $120^{\prime}$ Clock.

On view morning of Sale, and Catalogues had.
Hammerswich House, Hammerswich, near Lichfiel d, STAFFORDSHIRE.
Large and Important UNRESERVED SALE of STOVE and GREENHOU
MUMS, \&

$\mathbf{M}^{1}$ESSRS. POPE AND SONS have reoeived instructions from Job Evans, Esq. (who is removing to Torquay), to SELL by AUCTION, without the least reserve,
on the Premises as above, on TUESDAY and WEDNESDAY. July 30 and 31 , commencing each day at half-past 11 o'Clock prompt, the whole of the sion PLANTS, including fine specimen Lapagerias, Stephanotis, Maidenhair Ferns, Hoyas, Begonias, Bougainvilleas, Crotons,
Asparagus, 100 Camellias, 80 fine Azaleas, specimen AllaAsparagus, $\begin{gathered}\text { mandas, Dipladenias, \&e.; sixteen very fine apecimen Palmi }\end{gathered}$ mandas, Dipladenias, ${ }^{2}$; sixteen Very fine eppecimen Pami
and Tree Ferns, also Gloxinias, Cyclamen, Euphorbias, Poinand rree Ferns, also Ghoxinias, Cyclames, ©eraniums, Fuchsias, Aloes, Ficus, Draceenas, Yuccas, \&etias, also a very fine Collection of Orchids, 20 very fine Coelogynes, 100 Dendrobiums, 70 Odontoglossum Alexandree : also
Lzelias, Cattleyas, Lycastes, Oypripediums, Oncidiums, Ľelias, Cattleyas, Lycaste8, Oypripediums, Oncidiums,
Vandas, \&e. ; a large quantity of Garden Sundries, including Pots and Pans, Tools, Lawn Mowers, Marble and Iron Vasea, \&C. : two Marble Figures, \&c.

On view day before and mornings of Sale.
Hammerswich House is only five minutes wall from Hammerswich Station, L. \& N. W. By., and about 3 miles from Lichfield.
the Anctioneers, now ready, and may be had free by post from
WANTED to RENT, near good town, PRIVATE GARDENS or SMALL NURSERY, with good Glass and Dwelling-house. Little or no Stock required.
Kent, Farningham, close to $\mathrm{I}_{n}$ C. \& D. Rallway Station.

TO BE SOLD, a FREEHOLD NURSERY, With good frontage to parigh road. The Soil is well
adapted for Tomato or Flower growing; water is laid on from
water-works No valuation of Stock. water-works. No valuation of Stock. Price, freehold, to effect an immediate sale, \& 1175 .

To Nursergmen and Florists commencing busingss.

$I^{A}$ampton-on-THaMES, on The Marling PARE EBTATE, free from London fogs, a deep r'ch
the favourite neighbourbood for Growers, FREEHOLD Loam, the favounte neighbourbood for Growers, FREEHOLD
LAND for SALE, on easy system of payment. Excellent sites for residences, - For full sarticulars apply to Mr. FREDK. G. HUGHES (Surveyor), the Estate Office, Hampton-on-Thames.
FOR SALE, as a Going Concern, MARKET within easy reach of several of the largest Cities in the Lines, dom, 25,000 feet of Modern Glass, efficiently heated, comprising Vinesies, Cucumber, Tomato, Plant, and Forcing Houses nearly 10 acres rich land, planted with fruit trees and other crops. Good water supply and dwelling-house, with necessary out-honses, \&c. Immediate posesesion can be arranged. Addresp, N. B. B, Gardener ${ }^{\prime}$ ' Chronicle Office, 41, Wellingt
Street, Strand, London, W.C.

## Poutry and Bee Farms, Orchards and Hursertes.

HE REMAINING TEN FREEHOLD LOTS of the HIGH STREET FARM are FOR SALE by Private
Five lots of about $\overline{3}$ nere each, from 240 to $£ 50$.
Three lots of about 23 acres, at $£ 120$ to $£ 125$.
Also a beautiful site for \& house, 4a, Or. 30 p . of old Turf All the lots are with,
Midland Station of Hemel Hempstead, and come within and Situation about 400 feet above sea level, and a wood in maile. Water will very shortly be laid in the adjoining good service of Apply to N. W. BOBINSON ,

TO LET, a NURSERY of 1 acre.-Abont stocked with Cucumbera and Tomatos in full bearing. Wenl low. Incoraing about ezoo. - C. H. Womatos in full bearingo Rent
Strand, W.C. Wellington Street,

TO BE LET, or SOLD, with immediate posGlasehousea with all necessary heating ard, 600 feet leagth, Dwelling House. Low rento-J. CH MBlepiances. Pretty
Bill, B.E. 0 BE LET or SOLD.-A capital NURSERY cheap. Firntrat poestioan. Apply to ROBT, PECTCuld

## EXHIBITIONS.

Trentham Gardens.

THE TRENTHAM and HANFORD HOP ANNUAL EXHIBITION on July hold their EIGRIG ROUP OF PLANTS GIVEN IN PRTZES, value £10 $103 . ; 2$ ind, $£ 30 ; 3$ rd, $£ 13 ; 4 t h$, and 48 CUT ROSES-1st and Special, $\mathcal{E l 3} 78 . ;$ 2nd, $25 ;$ 3nd

 Schedules on application to Mr. L. T. ALFOMD.
ford, Stoke on-Trent.

WOKING and DISTRICT HORTICULT: RAL, COTTAGE GARDENERS' and FANGBE SHOW of PLANTS, FRUITS, FLOWERS, \& VEGRTABIX FEDNESDAY and THURSDAY, July 31 and Aug. 1, 㻮 At the Horsell Cricket Groand, Woking Station,
umeros MONE PRIZES offered for Competition, ILVER CUP for Grand Aggregat
Entriea close Saturday, July 27 .
Kintriea close Saturday, July. 27.
Somerset Villa, Woking. W. W. ROBERTSON, Hon, \&on,

KINGSWOOD, ST. GEORGE, and WEM
GLOUCE TERSHIRE HORTICULTURAL SOGIE NUAL SHOW, at Kingswoor, On WEDNESDAP August 21, 1895. PRIZES, over $£ 200$. Applications for Spaces for Sale of Implementa, Artich, th to be made to the
Schedules may
$\left.\begin{array}{l}\text { F. H. JULLION } \\ \text { A. W. COTTLE }\end{array}\right\}$ Hon. Seca, Kiagmal
WESTON-SUPER-MARE FLOWER SHOI
AUGUST 15Th.
£200 IN PRIZES.
Sohedules from the HON. SECS.,
21, West Street, Weston-Super-Mim
DROTHEROE AND NORRIS, Hommb TURAL MaREET GARDEN and EsTate Avectorkry Valuerss, 87 and 68 , Cheapside, London, E.C., and at Left

FOR ORCHIDS and GARDENEB! to Grow them, apply to SANDER's, St, Abass, Pume
rof Orchide in che World. 30 minutes from St. Pum

## Matdenhair Ferns.

500 ADIANTUM CUNEATUM, spledid Bold cheap. PAGE Tangley Nurnery, Haaworth, Midlaz

WBuading season -New Rosos. 1. PAUL AND SON beg to offer show planis in pots, with buds of their new lam SYLPH (Tea), a id ZEPHYR (Tea), 78, od, oach,
CLIO (H.P.), DUKK of YORK (Chins), and LORNA Dooill
 3bs. per dozen
The new Engliinh, American, and Continental Boes of If Lard Peozsad, each, 21 s , to 38 s . per doien.
nine rariote Hybrid Sweot Briars, Bs. emen! the wh Criminon rarieties, 12 s .



## 1,000,000 PLaIII

 Myatt's Offe Eafield Mas rket, ys. $0 d . \mathrm{pmi}$ Drumbead Savoy, 2as Vedither special cheap ofter.
Oisint Cauliflower, straus

R3, Rd. Der 1000 ; largg orte.
Edmond's Superb
coli, 5 s. per 1000 .
W. HORNE,

CLIFEE, ROCHESTE

DUTCH BULBS.- We can book the
far Balbe, on condition that orders be genf fing Balbo, on condition that orders be The Bulbs are of the very best quality, and
Cases and packing free on board. Rotlerdame Hyacinthan, int


Tulip Artus, 12 se . per 1000 Bello sllinnce, 18 s . do. Cliryochlom, 24s. do. Duchase de Parma, 138. do Keiverskroon, 2us. do. La Reine, 9s.
Pottebalker, white, 30s.do. carlet, 20s.
Yerboom, 18e. do.
Yellow Prince, 25 , do.
Crocuses, all round, 8s. do.
Apply, by letter, P. V. T.,
41. Wellingtom stom

## To Frutureres ana otberere

$T$ ENDERS are initited for the PURCHASE Growing at Thrist Hall. Waltham Abbey:Tender forms and all further particulars may be obtained upon applicstion, Abbey, on or before July 29, 1895 .

July 16, 1895 (Signed) M. T. SALE, Colonel.


#### Abstract

H. B. MAY has much confidence in offering

Grand New Fern-Pteris Wimsettil. 1. . the above. which is undoubtedly one of the most to become one of the most popular for market work, as it is of Iree growth, of good substance, and most elegant in appearand Royal Botanical Society.

Well developed plants, Trade Terms on application. B. MAY, Dyson's Lane Nursery, Upper Edmonton.


## LAINGS' BEGONIAS

now in full bloom.
The Premier House. Awarded Nine Gold Medals, \& Unequalled as a Floral Display. Visitors are cordially invited free admiasion. Frequent trains from the City and West End Catford and Catford Bridge, also Forest Hill Stations. Descriptive CATALOGUE post-free. Telephone 9860.
join datna e sons, Begonia, Caladium, Clivia, and Gloxinia Specialists, Seed, FOREST HILL, S.E.: also CATPORD, Kent.
for present and later sowinc, THE TBREE BEST

## WALLFLOWERS,

DICRSONS GOLDEN BEAUTY, Per packet, DICKSONS SELECTED DARK RED, $\}$ 6d. and 18., Choice Mixed DOUBLE WALLFLOWER, MYOSOTIS, 8ILENES, \&c. For Prices and all other particulars, see our

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## STRAWBERRY LIST

Before Ordering their Supplies. Now Ready.
Their Plants will be grand, both for Forcing, in little pots, and as Runners.
Semd Orders and Emquiries direct to-
THE OLD NURSERIES, MAIDSTONE.
NEW EARLY STRAWBERRY
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STEVENS' WONDER.
NOW READY FOR DISTRIBUTION. Evergone should secure this grand early variety.
In pota ... ... ... 25 per $100 \ldots$.... 25s. per dozen.
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98. per dozen.

All other leading varieties now ready for delivery. See Special LIST free on application.
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## WINTER-FLOWERING ZONALS

Good plants, ready for shifting into 5 and 8-inch pots, 4s. per dozen.
SEEDLING PRIMULAS.
Extra quality. All colours, mixed.
18. 6d. per dozen. Free for cash with order. H. J. JONES,

RYECROFT NURGERY, HINHER GREER, LEWISHAM.
C. BEESON'S MANURE.-Composed of sold in tins, lso, 2s. $8 d .$, , and best Fertiliser for all purposes. tin and bag. 1 cwt and above sent carriage paid, cash with order. Co. BEESON. Bone Mills, st. Neot's, Hants. "I have tried this fertiliser on various, earden crope, and am able to say that it is an excellent Manure for Vegetables, Flowers, Vines, and Fruit Trees.

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HUDSON'S EQUALISED PERUVIAN GUANO. - Guaranteed of equal strength and quality , mango, and a forme pow

FOOD FOR LILIES.-All Lilies should be fod with this Manure when forming buds. Ensures
 The Three Finest Manures Offered.
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Price Lists and Testimonials on application. Analysis sent with orders of cwt, and upwarda. SOLD $\quad B \quad Y \quad A L L \quad S E E D S M E N$.

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There is no risk of poisoning Birds or Animals if directions are followed when applying this preparation. Guaranteed to clear all weeds; mixes at once; no sediment; leaves the path bright and clean, without stains.

2 -gall. drums, $28,9 d$. per gall.; 5 -gall. drums, 2s, $6 d$. per gall. 10-gall. drums, 2s, 3d. par gall. is 40 gallons at 28. per gall.
Sample Half Gallon Tin, post-free for
TOMLINSON \& HAYWARD MNT STREET CHEMICAL WORKS, LINCOLR.
OSMAN \& CO. 132, Commercial street, Ask your Chemist or seedsman for this make.

## giviniee Gin

Well known as the cheapest, safest, and best of all Insecticides for K'lling Vermin on Plants, Avimal, and Birds. A. Pamphlet on its uee ith A \&c., sent froe on application. vallone, 7s. 6d. Gallons, 12s, 8d. Five Gallon Drums, 10s. 6d per gallon, carringe paid. Manufacturer:-E, G. HUGBES, Viotoria Street, Manchester. sold by all seedemen.

## Peat. EPPS'S Peat.

Specially selected for Orohide, and all hinds of Plants, by Sack, casr, cubic-jard, ton, or trucr-load. Rich fibrout ioum, C. N, FIBRE REFUSE, SPHAGNUM MOSS, CHABCOAL, to. Special through rates to all parts.
The Original Peat Depot, RINGWOOD, HANTG.

## HILL \& SMITH'S BLACK VABNISH, <br>  <br> An Excellent Substitute for Oil Paint,

 This unrivalled varnish has for forty years given un bounded satisfaction, obtained a large consumption, snd earned a high reautution throughout the kingdom. Itrequires no mixing, can be applied cold by any ordinary labourer, and dries in ten minutes with a perfect gloss Fences periodically coated with it are effectually preserve Price, 1s, 6d. per gallon at the manufator per per gailon, carriage paid to any railway station, in cally Th, 18, or 9 gallons.
Testimonial from CHas. Patrick, Esq., Cloughfold Manchester (Numerous others):-"I have used your Black equal it in economy and quality.
$C A U T T O N .\left\{\begin{array}{l}\text { RVERY CASE REARS THE ABOVE }\end{array}\right.$

## HILL \& SMITH

IRON FENCING, STRAINED WIRE
FENCING, HURDLES, GATES, \&c.
Ilustrated CATALOGUE and Price LIST on application Brierley Ironvorine, Dudley
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GREAT REDUCTION in FRAMES
OUR WELL-KNOWN MAKE.

together and taken apart in a fow minuter by any oae. 6 feet long, 3 feet wide (CASF
 12 feet " 5 feet " CARRTAGE 12 feet " 6 feet " ( PAID.

## R. HALLIDAY \& CO., ROTAL HORTICULTURAL WORKS,

MIDDLETON, MANCHESTERK

## WEBBS <br>  <br> EMPEROR CABBAGE. <br> the earliest and best 6d. and 18. per packet, 18. 6d. per ounco. <br> From Mr. W. J. CHASNEY, West Hondred. Thad the best bed of Cabbage this year from Webbe' Which I put out weat to seed." Per ounce. RABLY NONPAREIL CABBAGE $\ldots \quad . . .86$. ENTIELD MARKET do. 10. . 8d. RARLY RAIN <br> do. <br> Per plt. Per ounce. WEBBS RED GLOBE TRIPOLI 6d. 1m, 6d, LARGE ELAT RED TBIPOLI 6d. 6d. GLANT BOCCA All Garden Seeds Free by Poat or Rail. <br> Seedumen by Royal Warrants to H.M. the Queen ad H.R.H. the Prince of Wales WORDSLEY, STOURBRIDCE.

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Our Collection ts unrivalled. Over 1400 species and varieties Ol Stove, Grephhouse, Filmy, Hardy Erotic, and British Ferns. Yor prices of these and for pecially cheap collections in beautiful variety, eee our Catalogue, free on application
W. \& J. BIRKENHEAD, F.R.H.S:;

HERN NURSERIES, SALE, near MANCHESTER.

## ROSES ON THEIR OWN ROOTS, <br> FOR PRESENT PLANTING.

$\mathbf{W M}^{M}$. PAUL and SON respectfully invite attention to their magnificent
Stock of the above, established in 5 -inch ( 48 -sized) pots. The Collection comprises the leading arieties of the Hybrid Perpetual, Tea Scented, Noisette, Bourbon, China, and Polyantha classen, Price, 10s. 6d. to 18s. per dozen; 758. to 120s. per 100.
** The present is a most favourable time for planting, as it allows of the plants establinting themselves in the groand before winter.

Also a large General Stock of Roses in pots for Greenhouse Culture, Conservatory Climbing, se.

## PAUL'S NURSERIES, WALTHAM CROSS, HERTS

# IF YOU WISH TO CLEAR MEALY BUG, SCALE, \& RED SPIDER, USE THE <br> XLALLLLQUID INSECTICIDE WASH 

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POWERFUL BUT SAFE, THEREFORE CHEAPEST.
One Gallon 10s.; Half-gal., Ss.; One Quart, 3s. 6d. ; One Pint, 2s. Registered Trade Math To be had (like all the other XL ALL Specialties), from all Nurserymen, Seedsmen, Florits, and Sundriesmen; or, direct from the Patentes and Sole Proprietor,
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AWARDED THE OMLY COLD MEDAL at interwational horticultural exhibition, I892, to Hot-water applaices ILLUSTRATED CATALOGUE, 1s. PRICE LIST FREE.



 the Laberes Steam Horticulfulay Worke in the Wondd. Ingpection invited.

1000 Honses in stock to Solect from Works cover 5 acren.
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IMPORTANT.
We beg to inform all readers of this Paper that the Fourth Eation ( 100.000 coptet) of our Revised PRICE LIET, consiating of 400 pp . and about 1200 Illustrations, bound in cloth, is Now Ready. We shall have much plessure in forwarding to every person one post - free on application. This List is the most complete in the Trade, and has cont several thousand pounds to produce.



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Appliances, ke.
ITI.-Ruatic Work
IV.-Tron Buildings and Roofing, Churel

Furniture, \&c. ... Roofing, ...
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X.-Vegetable and Mower Seede, Mort ght Dutch Bulle, tc.

## EARLY BULBS

Our Special Offer of Rarly Bulbs is Now Ready, and will be sent pert-fres on application. Prices very low. We are now lifting

## DAFFODILS,

and can deopatch orders in July for Early Planting. The Bulbe are really eplendid, and thoroughly ripened

## J. R. PEARSON \& SONS,

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## FERNS!-FERNS!!

Well-grown stur, at Moderate Prices.
A. large quantity, in $2 \frac{1}{2}$-inch pots, ohiefly Pteris cristata ; also Alba lineate, Adiantum fulrum and pubes cens, at 98. per 100.
Good bushy staff in $48^{\prime} s$, -Pterin oristats, nobilis, and tremala; aleo Aralias, at 4s. 6d. per dozen.
The above prices are for Cash with Order only. Pnoking Iree. All orders carefully and promptly executed.

## B. PRIMROSE,

NUR8ERIES, BT. JOHN' PARK, BLACKAEATE, B.E.

## DAFFODILS.

HOME-GROWN BULBS.
We are now lifting our Home-grown NARCISSUS. We hold immente stookn of the following, amongst other kinds:-

## EMPEROR <br> PRINCEPS <br> EMPRESS <br> SIR WATKIN

POETICUS.
Special Prices on Application. DICKSONS NURSERIES, CHESTER. JOHNSON'S IMPROVED MUSHROOM


## SPAWN.

BEING one of the largent Manufacturers of Mushroom Spawn, and lreeping over 110 cows, from which I obtain a largequantity of pure virgin spawn, I am in a position to offer the best obtainable Special Psices for Large of

Bpecial Psices for Large Quantities
and the Trada, HANGER HILLL EALING.

## STRAWBERRIES ,

All the leading varieties, new or old, in small pots for fruiting first year. Open-air plants, very cheap. Special low quotations for quantities for Market Growing.

## FRUIT TREES <br> OF ALL SORTS. SEND FOR LISTS.

## JOHN WATKINS,

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## STRAWBERRIES. ROYAL SOVEREIGN,

EKPRESS OF INDIA, LORD SUFFIELD, GUNTON PARE, AND ALL TEE BEST NOVELTESS.
Decriptive ILLUstrated Catalogus Now Ready, Post-free on application.

## J. R. PEARSON \& SONS, CHILWELL NURSERIES, NOTTS.

LILY BULBS, plants, seeds, \&c. CATALOGUE os application. TOKIO NUREERIES Komagomi, Tokio, Japan.
Cable Addrese: "Nurseres, Tokio. F. Taxagigl, Proprietor.
On FRIDAY, JULY 26

HICHLY IMPORTANT

## Sale of Orchids

BY ORDER OF
Messrs. F. SANDER and CO. St. Albans,

## WITHOUT THE LEAST RESERVE.

## CATTLEYA GIGAS,

 SANDERE.
## AND SANDERIANUM.

A FINE IMPORTATION OF PLANTS, IN PERFECT CONDITION.
We are pleased to be able to offer such grand plants. It is absolutely impossible to have a finer Cattleya than the one now offered. Although the major portion will probably turn out Sanderæ and Sanderianum, yet our Collector assures us that Hardyanas and aureas are among them. The aureas our man collected in flower are all offered in this Sale. (See Catalogue).
We fully expect plants will flower from amongst them similar to Countess of Derby, Hardyana, Franconvillensis, Hochellensis, Hamar Bass's, Clarke's variety, \&c, \&c.

Also a consignment of -

## ODONTOGLOSSUM CRISPUM

 (SANDER'S TRUE PACHO TYPE).Simply unapproachable for beanty.
These were collected from Mountains we have rented for the past eleven jears, and from whioh all the very best varieties have been imported.

## ATSO

DENI ROBIUM STATTERIANUM,
D. PHALANOPSIS of FITZGERALD, D. SUMNERII, and D. MOOREANA.

A new introduction will be incladed, besides DENDROBIUM NOBILE,
Our FINEST LANG TANG variety.

## CATTLEYA CITRINA,

LYCASTE SKINNERI, \&c., \&c.

## MESSRS.

## PROTHEROE \& MORRIS

Have been instructed to Sell the above,
Entirely Without Reserve,
In their CENTRAL AUCTION ROOMS, 67 \& 68, CHEAPSIDE, LONDON, E.C.


TIIE

## Gardeners (llronide.

SATURDAY, JULY 20, 1895.

## A PRIMITIVE TOBACCO FACRORY

CHINA is nothing unless she is primitive, and although the faotory which forms the subject of these remarks is not exactly situated in Chinese territory, as it is in the Portuguese settlement of Macao, it is, to all intents and parposes, a Chinese factory, for it is owned and worked by Chinese. The premises oomprise several large sheds with earthen floors, and one or two better built rooms, nsed as storehouses. The factory gives employment to several hundred Chinese men and women. I was accompanied on my visit by Mr. A. A. Pettigrew, a son of Mr. Pettigrew, of Cardiff (Csstle, who is at present (May) on a tour in the East. The tobacco is not grown at Macao, but at a plase called Hokshan, about forty or fifty mile to the north-west of the former town, on one of the numerous mouths of the Sikiang, or Canton River. When the plants are properly dry, they are done up into bales ahout $2 \frac{1}{2}$ feet long, 2 feet wide, and 1 foot deep, and sent down to Macso in jouls. On arrival at Maoso, these bales are stored in the premises of the factory antil such time as they aro required for the manafacture of tobacco.

The first room we entered was devoted to stripping the leaves from the stalks, thene being disoarded in the manufacture. Women, sitting on the floor on their haunches, were busily engaged in this operation when we entered. The sight of us did not distract the women's attention, but several young ohildren who were present on our arrival, sompered away to distant corner like mice into a hole. The dust from the tobacon leaves got into our noses and throats, and caused us to sneeze and oough, much to the delight of our celestial onlookers, as evidenced by the lond outburst of laughter whi h followed our dinoomfiture. Strange to say, we did not hear a sneeze or a cough from any of the Chinese whilst we were in the factory. After the leaves have been stripped from the stalks, they are carried into one of the sheds in large bamboo baskets by men, then spread on a wooden floor and damped with water. When sufficiently damp, they are made up into layers about $2 \frac{1}{2}$ feet long, 2 feet wide, and $2 \frac{1}{4}$ inches thick, and placed on boards. The next process is to make eanh layer into a solid calre. This is done in the following way: - About a dozen layers, with a board $1 \frac{1}{2}$ inch thiok between each layer, are placed on the top of one another, and then pressure is brought to bear upon the whole lot by means of a lever of the second order, in the shape of a thick pole. One end of the lever is fized firmly with strong ropes, and this constitutes the fulcram; the weight or the resisting substance is the tobacco, and the power is applied at the other end of the lever by means of stout ropes, which pass round wooden axle that is securely fastezed to the ground.

When the tobacoo leaves have been properly pressed，the cakes are taken out and out oross－ wise into strips 4 inches wide，and the two ends cat off，as they are not sufficiently pressed．The next step is to tie half－s－dozen of these strips together by means of ropes．The next opera－ tion is to make the tobacco ready for use．This is done by means of a plane，very similar in shape to an English carpenter＇s plane．The strips of tobacoo are stood up on end on the ground， and kept in position by boards made for the purpose．As the strips are only about $1 \frac{1}{2}$ foot high，the men have to work the plane in a half－stooping position，a most uncomfort－ able way of working from an English－ man＇s point of view．However，the Chinese do not appear to mind it，as they work away contentedly from morning to night．The shavings of the tobacoo leaves are the tobsco ready for smoking．Every man puts his shavings，as he takes them from the plane，into small heaps，weighing about a pound eaoh， enolosing at the same time a tioket with the name of the firm on it in the centre of each heap．These small heaps are then put into papers，the two ends of the papers being left open．The packets are then weighed，and a little more tobacco is added or taken away according to whether the packet is too light or too heavy．When the packets are of the proper weight they are pat into another paper，both ends closed up，and then packed in bozes resdy to be sent away．There is a good deal of order in the way in which the factory is worked．Women are only employed in stripping off the leaves from the stalks，men do all the rest of the work．There is one lot for damping and pressing the leaves，and another batoh for cutting the pressed oakes into strips and tying them up ready for planing．The planers only make the tobacco and put it into heaps，a separate lot of men put it into the first papers ready for weighing．The men who weigh the tobacoo pass it on to others，who pat it into the second paper，and these finally hand it to the packers． The tobacoo is of a dark brown colour，and is only used，so far as I know，by the Chinese。 It has the repatation amongst them of being a par－ ticularly good brand，and the factory is said to be one of the largest in South China．It was very amasing to see the workers at 12 o＇olock，as this is the time they take their mid－day meal． As soon as the clock struck twelve，everything stopped as if by machinery．In less than five minutes tables were produced from anlooked－for corners，basins of rice and other foods were placed upon them，and the men were basily engaged in emptying them by the aid of ohop－ stioks，All the workmen took this meal in the same place as they had previously been working in，W．J．Tutcher，Botanic Garden，Hong Kong．

## New or Nuteworthy Plants．

## TEE GUADELOUPE CYPRESS＊＊

 ．hacrocarpa var guadrlouprnsis，Maste） Turelate Prof．Streno Waisou deacribed this fine Cyprese as a distinct species，under the name of C．gardeloupensis，and perhapa rightly．It may[^5]also，and，as we think，more correctly，be considered an a form of C．macrocarpa．The latter，known at the Monterey Cypreas，ham a very limfted range of distribation on the Californian coant，and，to our thinking，the present is but an insular variety of the species，differing from the type more especially in its glaucous colour．It is true there is a coniderable distance between Monterey in lat． $36^{\circ} 4^{\prime}$ ，and Guade－ loupe，an island in $29^{\circ}$ N．L．， 200 mile from the mainland，with deep sea all around，but it in pos－ aible that intermediate localitien may be found．At any rate，the presence of distinct charactern in a common feature of plant growing on isolated islands．Our illuatration（fig．9）is from a specimen sent us by Dr．Francenchi，of Lo Angelen，who can also furnith seeds．The illuatration how a por－ tion of a spray with male flowers of the natural aize， foliage and male flowert magnified．The cone are generally larger than here represented．For the sake of comparion we append a figure of Cupresua arizonica（figy． 11 and 12），with a transverse section of the leaves of that species，and also thome of C．macrocarpa（fig．10）．M．T，Masters．


> Fig 9．－the guadeloupe cipress（c．macrocarpa

## Entrrosora Fawcetti，Jenm。n．sp．＊

The only plant of this discovered wat seat to me several yearn ago by Mr．Fawcett to determine．I saw at once that it was a true Enterosora，but it dif－ fered from the Guiana specien in it much maller size，hairiness and very slight sinuation of the margins， Having so little material（a aingle bat fully mature plant），after notiog the diatinctions mentioned，I thought it bent to leave it with E．Campbelli，think ing it would coon be found again．It has not，however， been re－discovered．I therefore publish it，particularly

[^6]as Mr．Fawcett，after careful examination of the specimens of $\mathbf{E}$ ．Campbelli at Kew，writes me that he regards it，because of the characters juit mentioned as a diatinct apecies．The Guiana plant han an elongated root－ntock，which，though morphologically of similar character，is several times larger，quite gla－ broun，glosay，and bright coloured；more or leas freely ainuated，occasionally forked at the top，and mometimen with a furcation，or jib－like extrunion on one or other side．The necie now known are：－E Campbelli，Baker，slopes of Roraima，British Guiana； and E．Fawcetti，Jenm．，Rose Hill，Jamaica．It is remarkable that this genus should have been dis－ covered so late in the day in two well－explored countries，whose flora，fauna，and geology are so different，and which are so wide apart，mach about the same time．Both species resemble in form clowely Polypodium trifurcatum，L．，which alno grow in both countries，for which，without clowe examination，they would at once be mistaken．G． $\mathcal{S}_{\text {．}}$ Jenman，Demerara．

Hembrocalles aurantiaca far．major，Baker．
This botanically comen close to the plant which I deacribed in the Gardeners＇Chronicle，1890，vol．viii．， p．94，from the Royal Gardens，Kew，under the name of Hemerocallis aurantiaca，but it is larger in all its parte，and is the finest Hemerocallis I have aeen．It has the firm，bright orange perianth－segment of the type，and like it，自owern later than flava，Middendorfii， and Dumortieri．The leave are an inch or an inch－ and－a－half broad，firm，and atrongly ribbed．The peri－ anth－tube is three－quarters of an inch，and the limb 4 inches long．The inner segments are 18 to 20 lines broad，and the expanded flower in 5 to 6 inches in diameter．It was imported from Japan by Mesarn． Wallace \＆Son of Colchester，and wat exbibited at the Drill Hall on the 9 th inst．，where it obtained a Certificate．J．G．Baker．（See fig．14，p．71．）

## Orohid Notes and Gleanimgs．

ORCHIDS AT ROUNDHAY MOUNT，LEEDS．
This Orchid－houres in Dr．Jemop＇s pretty garden near the fine Roundhay Park，are well situated，and their occupant have in Mr．Tyson，the gardener at Roundbay Mount，a careful and diligent cultivator Seeing therefore，that Dr．Jemop himelf takes a personal interest in his Orchids，it is not sarprising that the collection affords a good example of anc－ censful cultivation．Odontoglonam，Cattleyas， Lalia，and Dendrobium，are the apecies chiefy found，and in each department，aniform vigour， health，and freedom to flower are remarked． In the Dendrobiam－house，the base of which is in part planted with foliage plants，Palmp，Begonias，\＆c．，the apecimens of Dendrobium Dalhonaieanum have madea grand show，one plant having nearly one hundred flowers．In addition，there were nome beantiful plant of D．tranaparens，covered with their pretty blush－white and purple flowern；D．Pariahii，and several of the 150 or so plants of D．Phalenopais Schroderianum which are here grown，were in flower． Some fige specimen of $D$ ，thyraifloram and othera that class；together with a few Phalænopnin added to the dieplay．

Ia the block of mpan－roofed houses we found fine Cattlegas and Lalias，mong the former beiok a large number of $\mathbb{A}$ ，wern on excellent varieties of Cattleya Monix；among thene C．M．marmorata is a noble form of flower，with very large lip，that is marbled with rone and purple；C．Schroderx is one of the most delicately－tinted and fragrant of Cat tleya；C．intermedia and other apecies were noted． Among the Lelias，$L$ ．cinnabarina wan in flower， a＇so a dark scarlet－coloured form of L．flava－a dis－ tinct and pretty variety．In the namo house afice plant of Miltonia spectabilis radians，and other Mil－ tonian were remarked，a small stage being raised near the glaan for M．Roezlii and M．Phalwnopeis，both of which are in fine condition．
Paming to the group of Lelia purparata，we fonnd a good show of fine and dissimilar flowers－one
having enormous blooms. So beautifal are these forms of $L$. parpurata that they carse one to ank, when we hall get a new Orchid, either species or hybrid, which will be their equal? Another house had apecimens in flower of Cattleya Skinneri, another old favoarite difficalt to excel ; Sobralia macrantha, and the fine yellow S. xantholeuca; Cattleya Aclandix, and a healthy collection of Cypripediuma, among which C. Rothechildianum, C. hirsatissimum, ome plendid C. bellatulum, C. Godefroyæ, C. niveum, C. caudatum, C. Chamberlainum, C. Cartisii, \&c., were in flower.

The next house was occupied chielly with Cattleys Trianæi and other of the C. labiata class, ome good C. Mendelii and C. Schroderæ being in bloom. An Anguloa Clowesii was carrying twelve flowers, a plant of A. Rackerii angainea was very handsome, and specimens of Dendrobiam infundibulam formed pretty objects. Overhead were sprapy of Odontoglossum citrosmum, and some good plants of Dendrobium Hildebrandi, whose soft primrose-yellow flower are alway pleasing; Saccolabinm curvifolium, a pair of Rodriguesia venutta, and some vigoroun examplen of Vanda coerulea.
In the cool house a few fine spikes of Odontoglossum crispum and other Odontoglosmums were noted, also some Masdevallia Harryana and M, ignea, M. aimula, M. bella, M. $\times$ Heathii, and Ada aurantiaca; and in a slightly warmer house a fine display of orange-scarlet flower on several strong specimens of Epidendrum vitellinum majus; Oncidiam concolor saperbum, with flower as large as $O$. aplendidum; a denselyflowered O. cornigerum, with six opikes; Odontoglonam hatilabiam, and other Odontoglonnms, and Oncidiums, and a healthy batch of Miltonia vexillaria. The conservatory was gay with Lilies, Calceolarias, Pelargoniams, \&c.; and in the open garden, herbaceous and alpine plants fill the borders, and furnith the rockeries outdoor.

## Luddemannia Pescatoril

We underatand that the plant exhibited by Sir Trevor Lawrence under this name has nince been determined to be a now apecien, and has been named by Mr. Rolfe-Laddemannia triloba.

## TOMATO FRUITS NOT SWELLING.

Is reply to the inquiry of "Narseryman" regarding the above aubject. vide p. 51 of the last insue of the Gardeners' Chronicle, I may asy that continued observation in the cultivation of Tomaton has led me to the belief that no one cause in particular may be given for the non-swelling of the earlier fruits; but on the other hand that a variety of cause and circamatances combined, conduce to the ame end. I believe one of the most prolific causes to be innafficient atrength in the plant themselven, a circamatance in all probability due to the warm temperature necessary early in the year for the growth of these plants. Very frequently in the early atages the plant are allowed to become crowded, or a warmer cloner temperature than is really needfal or beneficial is afforded, and in either case the early trusses are generally of little uee. But because the trusses are really put forth and the flowers expand, it does not follow that the wood is anfficiently mature to bring about the best resulte. In "Nurseryman's" case it is almo in the "three earliest houses" that the non-wwelling is mot noticeable, a fact which appeara to give weight to my view; while in the "later houses the bottom trusse are swelling off all right." Thus it would appear that the laterraised plants, with preamably lens fire-heat and more aunlight and sunheat, have produced firmer, and therefore more fruitful, wood. Any foreign matter in the manare which would cause the plants to "tarn black" in a few days after being planted would uadoubtedly prove highly detrimental to the plants ; bat apart from thi it is by no means ancommon for the two earliest produced trusses, when very low down, to be puny and amall, while the third may prove of prodigious weight.

Light, again, is a most important factor, and all important so far as setting the frait is concerned. For some eight or nine years past I have planted a row on each side of a wide house to go up the roof, trained near the glans. I have prepared the plants in various way*, sometime planting from 4 -inch and sometimes from ' 8 -inch pots, with the first bunch already set, and nome welling the fruit. But at the side of the house there are 18 inches of brickwork before the wall-plate is reached, so that the firnt-Met bunch will be about 9 inches below the wall-plate, and therefore in obscured light. Whether planted with plants out of large or amall pots, thim bottom truss is invariably a failure, but the first trusi which receiven full light is generally a large one. I have this season many notable instances of this. In the first 2 -feet run of stem three trusses of flower: have appeared, the two first by reason of their position being always shaded, producing only puny worthless fruits; the third in fall light, bearing from a


Fig. 10.-leaf-section of c. macrocarpa. $\times 20$. (SEE p. 82.)


7 inches of atem. The varisty wat Chemin Rouge, a plendid variety, that wet freely, and han fine bunches of fruit of a asefal and uniform size. "Nurseryman's" planta, judging by their height at this early date, could acarcely have carried a good crop. Bat it will certainly not antist matter to stop the plants at 4 feet high, although anch a proceeding would be quite right with a late batch, which may only have time to finish fruit at 4 feet high; but with a full season in view it is another matter. The extreme point of the growth is full of embryo bunches of fower-bade, and to remove the point at 4 feet high would only result in axillary growth, and such growth would attain a considerable length before they become fraitful again.

For some years past I have planted my earlient Tomato plant in January, the first batch rarely doing mach good; they appear to net well, bat eeldom wrell of a useful size, owing to lack of nunlight at this early date. I am satinfied if I get a good buach on the stem at 18 inche from the ground, for if a bunch of rapidly-swolling fruit is got at that height, it tend to check growth usefully later on, Some growers bury a part of a rather tall atem by laying it on its aide in planting, which I think is a mistake, aince the Tomato, being a rampant grower naturally, is rendered more so by furnishing it with a greater number of rootm in it early stagen. A shallow narrow bed of rather poor and firm aoil condaces greatly to a good early set; but the plents must not be neglected in any way, and once a good set is obtained, the plants benefit by liberal wateringe, liquid manure, and a urfacing of fairly rich soil. Tomatos for planting in January should be sown at the end of September, and grown ateadily on in as cool a temperature an is consiatent with healthy growth, a long meanon of teady growth being an important factor in very early fruiting. $J$.

## ROUND GHENT.

In the housen of M. L. De Smet-Davivier we noted recently Antharium M. George Montefiore, raised from A. Rothachildianum $\times$ sanguineam. The opathe is rounded, the form charming, with bloodred spots beautifully shaded. The apper anrface is covered with a clond of dotiv, mixed here and there with pots. The lower surface in much more beantiful and diatinct than the cther, and beara large apote which almost entirely cover the whole surface. This is a very dittinct Anthurium.
A fine specimen of Aralis monatrona, which is becoming very rare, grows in the same house with a hundred pretty plants of Livistonajrotundifolia, whose valuable decorative properties are well displayed. Few thinga are more charming than are these miniature Palms aned for table decoration, baskets, \&cc. A very fine seedling Croton from C. Diaraeli $x$ Hanburyanus aurprised me agreeably; the young leaves are very bright yellow in colour, exceedingly delicate, the end of the leaves and half the length of the border of them are a pretty tone of green; the adult leaves are dark green, verging upon black, with the midrib and other veining yellow, the petioles a fine thade of red. I noted a flowering specimen of Tapeinoter carolina, a fiae old plant which denerves to be more widely grown.
M. L. Ds Smet-Davivier't garden aggented Italy, owing to the large numbera of Bumbuas aurea there growing; thene Bamboo chould certainly take a more important place as plants for parke and gardens ; they are also suited for indoor decoration.
At M. Jou. Boelen's establiwhment I admired a fine apecimen of Mitraria coccinea, unfortunately much neglected now-a-days, and a good example of a variegated Rhododendron, the green centre of the foliage being arrounded by a yellow edge.
M. Ch. Vaylateke hat now some fine Orchide in bloom. I would mention Miltonia vexillaris Empress Augusta Victoria, of fine colouring; Odontoglonsum Harryanum, with large flowers, the lips of which are of considerable size. The upper half is wide, and of an uausually pure white coloar, the purple part of it veined with white, the yellow of the lower section of remarkable brightzeap.

The eeedling Odontoglossum mentioned by me continue to grow well; they require apecial care, and dislike drought as much as they do excessive dampneas. After seeing a fine Cattleya gigas I was ahown a C. Gakelliana nobilis with several flowern of a very delicate tint.
A plant of Cypripediam Chamberlainianum, which I have mentioned as flowering in the beginning of May, 1894, atill bears two fine blooms on the same raceme, and there are buds promising fature flowers. A apecimen of Odontoglossum Lindleyanam deserves notice. It hay twenty flower-stems with about aix blooms on each; these $1: 0$ flowern are very bright in colour. Three fine amples of $O$, mulua covered with flowers; O. mulus Holfordianum leriopteron, an excellent variety with flower of a very clear ground colour ; O. ornatum, 0 . elegantius, with a fine branching apike bearing flowers whove ground colour is greeniah yellow, with a large apot on the nepals, and on each of the petals two small apots and $O$. macrantham with very large flowera, complete my list of the Orchids now in bloom. Ch. De B.

## FLORIST8' FLOWER8.

SOME NOTES ON TAKING THE BUDS OF CHRYSANTHEMUMS.
Doubtlass locality makes a great difference as to the best date for thir operation, and the seasona make a great difference in resulte, so that the best calculations are liable to be upet in some particular. I like to get a good free growth for exhibition flowers, and allow the plants, with very few exceptions, to break naturally. An a rule, I have no tronble with the plent showing their crown-bude too soon; in fact, many of the incurved varietien are often too late, and this in a season like that of this vear.

The best flowern of Queen of England I ever had were taken on Angust 4, 1891; the plants had grown very atrong owing to having being kept indoors longer than uaual during the very cold and late spring, but were not stopped in any way. In 1893 meveral of this class were cut back in May because they persiated in flowering instead of growing; they grew much weaker afterwarde, am might have been expected.
I never find Lord Wolseley and Prince Arthar show too soon; in fact, the difficulty with these two varietien is to get them to show early enough. The bent flower of Lord Woleeley I bave had was from a bud taken August 23, 1892, and I find from my note-book three more buds were taken on August 30, and five on September 12 in that year; the latter, of course, were quite useless for exhibition. Lat year five were taken on Auguat 31, and did well; in 1890 the firat three were taken August 26, and were good flowers.
The Princesm of Wales family, in which I include Mrs. Heale, Violet Tomlin, Mra. Culeman, and Misu Haggar, is very similar to the above in the matter of ahowing buds, \&e.; many of the ahoot during 1893 were not thowing on A aguet 31, and the fiowern that set after that date are of no une for exhibition.
In 1893, I topped Hero of Stoke, and auch varieties early in May, and got a few very fine flowern in good time. I had not tried atopping before, and never got this family up to time previoualy, that I am quite favourable to stopping these in any teaton; the beat flowers I had were taken on Auguat 31, nome taken mach earlier were quite umelem, and I find them quite large enough for the centre row on the atande occarionally.

Lady Hardinge grew atronger and did better in 1893 than ever before, and the eame may be eaid of Alf Lyne (bude taken August 7).

Madame Carrière ahowed bloom at every point in May, and had to be cat back like many of the Qaeen family. I afterwarde got vome fair blooms, but they were much inferior to thoue of the previous year when they were not cut down or topped in any way.

Tha Japanese varieties in ome instances ahow too noon, but au a rale they may be left to make a natural break. This nection ia not earily divided into familien, and I will mention a few of the principal varietien.

Avalabche and Sanflower are claned together by some growers for atopping. I never find them show too early; my beat liower of Avalanche in 1894 was taken July 29 with five others, and all of them did well; those taken later were much amaller.
Boaquet de Dame, taken on Jaly 20, also Auguat 9, were firt-rate ; Cryatal Queen, taken on August 9 and Augast 22, were poor; Esoile de Lyon, taken on Jaly 29, were almost white, but of good form; those taken August 22 and 31 were also good flowers, and perfect an regards colour-liberal feeding has much to do with the latter point in this variety.
E. Molynenx has almost failed this aeason. The plants were very healthy, and bude were taken on July 29, A ugust 9, 22,31; thowe on August 22 were the best, but were not fall in the centre; in 1891, thone taken on Augant 14 were firat-class.

Florence Davis, taken on Jaly 20, were very fine. L'Enfant des deax Mondes and its parent Louis Boohmer, ahould not be taken too early. Those taken on Auguat 22 were the best here thil season.

Mr. A. H. Neve, taken on July 20, was of no une whatever; others, taken on August 7, 15, 24, and 31, were all good, the latter having the most colour.

Viviand Morel had to be cut back early in May, owing to premature flowering ; buda taken on Jaly 20 and 28, gave fine large flowers, bat without colour ; others, taken on Aagunt 15, were perfect, but not mo large as uaul, owing to having been cut down.
W. H. Lincoln, taken on Jaly 20 and 28, gave good large flowers, bat pale in colour ; and on August 15 proved the best date for this variety in 1893. W, $A$. Divers.

## GERMANY

And they were not Missed! - We read in Moller'a Deutsche Gärtner Zeitung that the Darmatadt nurserymen and florists declined, to the number of thirty-eight out of forty firms there established, to take any part in a recent exhibition held by the horticultural society of that town; and, carious to relate, alys the reporter, "nobody missed them." No one knew the reason for this wholeale non-participation on the part of the trade. Perhaps it wan to show the Society that they were indiapenasble, and that without their assiatance the show would be a failure. However, one good reault of their refusal to show was a very lively participation of the nurerymen from a distance, and the nhow was rendered a much more interenting one than would otherwise have been the case.

A red! Maréchal Niel Rone wat shown. It is one of numerous seedlinge raised by Dr. Müller, and is the renult of a cross between Maréchal Niel and General Jacqueminot, a fact that is readily discoverable in the foliage and in the bloom, which is exactly aimilar to that of Maréchal Niel, excepting in colour -a beautiful deep red. Of all the seedlings from the selfame seed-capule, only this one possessed these utriking attributes, the rent having a more or leas resemblance to General Jacqueminot. This red Maréchal is not yet named; and may never receive a name from the raiser, who is no business man, butan amateur who find his chief delight in the raising of new varietien; taking pleasure in them for a time, and then discarding them for a new favourite. He has the advantage over all othery, in being in the mole ponsesion of certain cromes of Ronen which he can employ in obtaining atill more remarkable renulte.
A Yellow-coloured Kaiseria Auguste Victoria Ross.
We read that Mr. Peter Lambert, of Treven, amerte that he has the above variety, but as yet it has not been exhibited.

## A. Whita Sport of Papa Gontina Rosb.

Papa Gontier in easentially a variety for cutting for market, an almost perpetial flowerer, and very early in season. The uport pomessea all the good properties of the type, and in likely therefore to be of great value to trade growers. It was foand in the garden of a Frankfort-on-Maine nurweryman,
and shown by Mr, C. P. Strawheim, of that city.

Papa Gontier is a vivid pink flower, centre buff, reverne of the petals reddish-purple. Raised by Nabonnand in 1882.

## Oleanders.

Thene rarely cultivated plants, which are such excellent abjects for the decoration of apartmenta, were well shown in flower at Darmitadt by $\mathrm{F}_{0}$ Clasmann, Mayence. The vigorous healthy planta were abundantly flowered.

## MARKET GROWERS AND SALESMEN.

The memorable anying, "Something is rotten in the State of Denmark," has a manifest application to the fruit-growing community in Worcesterahire. I have for nome daya been making an excurtion through the rural districts of Worcesternhirs, and natarally I came in extenaive contact with that induatrion clans known an the market gardeners. It is imponsible to view withous admiration the well-conditioned allotment which they hold, nor can you contemplate their energy without admitting that they are juatly entitled to the practical sympathy and apport of the Britioh public. Strange to eay, this, the seamon of "hops realised," is invariably acclaimed a season of dismay. They have watched the maturing process of their crop with glowing pride. Heaven for its bounty has been rraised; but, alas! there remaina a sting which warps and blunts their eense and enjoyment of haman ecatary. Daring the season these men despatch prodigions quantitien of their produce to Mancheater and other important northern markets. Here they come into the hand of commission agents, whom duty it is to sell to the general parchasing pablic. A few daya later a return is forwarded to the sender, and it is this document, together with the accompanying pecuniary contents, that causes the growe the depreasion and heart-aickneas to which I havertferred. Ia almost countless instances the "proceeds' fail to meet the cont of gathering; in numberlent othera a balance remains againat the grower, whiek he is expected to remit. Theme disappointmenth, together with aundry others of a like kind, are $\mathrm{It}^{*}$. spontible for numerous and serions embarraument which the market-gardening fraternity is perforce made to endure. Grievancen of this chatacter have to multiplied of late years that s serious problem confronte us. We muat either kill the patient, long-auffering gardener, which would mean a huge national calamity, or we must cure the disease. It in deop-neated, nome say, and on the surface ineradicable; but deapite this the obstaclet are not altogether insuperable. Lat growers take heart of grace, show true manly conficence, and hert, to a grest extent, a solution of these diaspointing experiences will be found. It has been suggented to me that the Government should be invited to appoint aalenmen, who should be garanteed a yearly atipond according and in proportion to their capacities. Thin atipend should be paid by the grant of a reasonable commisnion, together with payment of reanonable incidentals. I confess I do not like the principle. State interference would be cumberwome, and before it had been in operation long, it would be discarded as too contly and impracticable. Others anggent that the produce should be old in the immediate home countien, but this contention is too absurd to be for one moment entertained. Large fruit-growing countiee invarisbly have a yield tremendously in excess of local requirements; hence, it is apparent that ${ }^{\text {a }}$ hard-and-fast rule of this nature would soon bo regarded as infinitely worse than the prenast disease. The cuttom would be more honoured in the breach than the observance, and in the end, general demoralisation of the syatem would follow. The only effectual alution that the writer can discover in this: Let market-gardeners organily and form a sound atsociation. Select from its menio bership honourable and capsble men, and to thete entrunt your fature success an growert. The difin culties that would at the outset bestrew their paths an anleamen would vanish entirely as time went an; mutual confidence, forbearance, and collective is
terest would inpire them to succeed, and, that objest attained, past miseries and disaffection would become +ffaced. - Yuara, \&c, Inve-tigatoz.
Powick, Worcestershire, Jane 29, 1895. Manchester Guardian, July 141895.

## AZALEAS AT WALTON LEA, WARRINGTON.

Oor illatatration (fig. 13) represent a profase floral diaplay in the conservatory at Walton Lea, and wan taken from a photograph obligingly

There are some thirty varieties, among which were fine pyramidal plants of Dac de Namera, fa feet high aod 3 .t feet in diameter, in perfect condition Souvenir du Prince Albert, Stella, Dac de Brabant, Model, Flag of Trace, and Baronne de Vriere. The smaller planta consisted of Roi d'Hollande, Mdlle. Maria Planchon, Balsaminifora, Illaminator, and others, all densely covered with bloom. The effect of auch a display of plante, arranged an they were with good taste, was one calcalated to leave a lasting impression on all who saw it. The conservatory was not the only house svailable to the public. They were allowed to walk

## SPYE PARK.

While on a visit laat week to Mr. Perry, the gardener at thi place, I was struck by the beauty of an extensive herbaceona border he had made and planted in the centre of the kitchen garden. This border ran eant and west, and is about 130 yarda long, and 8 feet wide. Choice Apples and Peara line both aides. This border forms a asefal reserve of plants for cutting from, and there is nearly always something to be found in it of intereat to the lover of plants. I noticed flowering profusely the lovely Funkia grandiflora, the odcur of whone flower is very refreahing: Achillea Ptarmica, fl.-pl., to unefal for


Fig. 13.-azalea• hoosb at walfon lea, wabbington
farnizhed by Mr. P. Will inson, Cliff View, Walton, Warrington. The following letter accom panied the photograpb:-"For a number of yearn Jubn Crossfield, Esq, of Walton Lea, has, at different aeasons of the year, generounly opened his gardens to the Warrington pablic, for the inapection of his varied collections of plants. On May 5 and 6 of the prenent year the pablic were so admitted to view the Azaleas, and some 5000 pertons availed themuelves of the privilege, myeelf amongot the namber. The plants were arranged in the conaervatory, a aplendid apan-roofed house 40 feet in length, 25 feet in width, and 20 feet in height, a temporary entrance being arranged to meet the necenaities of the occation. The plants were arranged in one large groap in the centre and on borders about 4 feet wide, which run along each side of the bouse.
through the long range of plant and fraithouses, one of them the famous Camellia-honse 100 feet in length, and 15 feet 6 inches in breadth, containing aplendid apecimen plant of choice varieties. A good diaplay of Orchids was likemne in bloom at the ame time, and an admirable batch of herbaceous Calceolariag. Great credit is due to Mr. W. Kippa, the head-gardener at Walton Lea, who has for many years conducted the work in thene gardens. It is imposaible to visit these besatiful gardens without a feeling of indebtedness to Mr . Crossfield for his consideration of the Warrington townspeople, and I think in admitting them to his place he seta an example which many other pomencore of fine gardens in the neighbourhood of large town might follow with advantage to all engaged in horticultaral paranits.
catting; Chrysanthemam maximam, growing wonderfally strong, with numerone flowers, which wers of unuausl siza; Heuchera sanguines, Bocconia cordata, a tall Cephalaria, with atraw-coloured flowers ; Epilobiame, flowering profarely; Campanalae, of varicat species; Carnations, Migoonette, Dahlias, sce. All the plante were growing with amazing vigoar, and flowering profacely.
Choice Lilies, Gladiolas, which were showing flower very strongly, fill the spaces between the herbaceoas plants.
Mr. Perry finda Cole's Blood-manare very beneficial to the se sabjecte, and he uses it at a top-dreasing for beds of Lily of the Valley, Datzias, and Spireas.
There is a good show of fruit generally; and the houser afforded a rare show of Grapen, Peaches, and Fig*. W. A. C, Compten Baseett.

## BOOK NOTICE

Pflanzen Krankheiten durch Kayptogamische Parabiten verurgacht. By Dr. Cerl Freihert von Tubearf. (Berlin, 1895.)
A work of nearly 600 pagen of closely-printed matter on the subject of plant-diseases cansed by paranitic fongi, may appear to many an, of necesaity, either encyclopsodic and too full of details, or nuperficial, and abounding in wordy treatment; an a matter of fact, whatever the faulte of Von Tubeuf's book, it svoid, both the extremes mentioned. It is a very soberly written and fair digeat of the volaminous literature which ha appeared in Germany since De Bary's fine treatise on fungi atarted the series of workn, of which Brefeld, Zopf, Hartig, Frank, and Soracer are the mont important, in a domain in which Berkeley was one of the beat pioneers, as well as one of the hardent workers and clearent thinkern. Berkeley's chief work in vegetable pathology appeared in these columon.

It is a very common plan in German text-booka to deal with subjects of this kind in two parts"Geaeral "and "Special," and sach is the case here. In the firat part (Allgemeiner Theil) an attempt bat been made to re-cast the usually-accepted classification of the mode of life of fangi under the headinga Paranitim, Matualism, and Natricism (for only by this barbarous equiralent can we consistently render the word chosen), and, we thisk, with bat scanty access, for the etfort to draw sharp linea between the various atages of parasitism displayed by fungi of different species, or by the name apecies under different condition, can rarely be maintained.
For instance, Von Tubeuf substitutes for De Bary's clamification of parmites and aprophytes into (1) Obligate Saprophyten; (2), facultative paraaiben; (3), obligate paranitea; and (4), facultative saprophytes, the following (1), Pure Saprophytes; (2), Hemi-mprophytes; (3), pure paraniten, and (4), semi-parasites, without in eas aubatantial degree improving the classificatory value of the subatituted terms. Indeed, his own account showa that the new terms break down as hopelensly as the old onea before case like Macor and Penicilliam, which behave as if they were paraites on riponed fraite, or Botrytia forms which can penetrate young tissues when the mycelium has actained a certain degree of vigour, and accumalated sufficient poioon or enzymes to atart an entrance by neatling in the firat fow cell. it is enabled to kill.
Nothing is gained bere by calling the fungus \& halfparanite inatead of a facultative paranite; and indeed the latter term is the better, for it expreses more nearly the real ntate of the care. The farther dincasaion of the mode of life of parasitic fangi is happier, and the author has brought together an interesting eerie of new facte, published since the treatment of thene phenomens along vimilar lines by
Zopf. Zopf.
In the section on mutasliam, again, we are driven to the conclanion that Tabeaf it atriviag after a refinement of terminology, which obscure rather than illaminates his aubject. He regards the clansical cane of the symbionis of Lichens as met by the term individualinm, because the result is a liviog being " whirh in it form, life-requirements, and mode of living is completely new, and differs entirely from the two components." Bat thilsavoars of a mere plajing with words, and, we thins, with words singularly ill-chosen to play with.
That the author is right in distingaishing such catel of aymbioniz as those of the Lichens, Witches ${ }^{3}$ Brobms, and so forth, from the casel of Mycorhizs and the leguminoon tubercles, may be at once conceded. He does this by laying atreas on the view that in the latter one of the aymbiotic organism: servet eapecially for the nutrition of its hont--e,g., the fungas of Mycorhiza is regarded as bringing organie food-materials to the root it dwells on or in, and the organivm of the legaminous nodale is
digented by the hout plant. digested by the hout plant.
The wection most interesting to the "practical
ran" will, no doubt, be the chaptern $v$, to vii., dealing)
with predispoition to infection, methods of combating the diseaser, and the practical significance of fungoid direases. The anthor ingiats on the hopelessness of individual efforts to combat diseases which are widespread over areas where apathy or ignorance prevent cooperation; and arges, with conaiderable force, the necensity for experimental stationf, museams, and means for educating the pablic in the technical matters here cu cerned. He then enters into the prophylactic and therapeatic aspect of remedies and measures; and, among other illustrations of the ffficacy of to atment choroughly carried out, quote the followia , without, however, discusaing the econdary effects, Of two parks in Manich, there is one where the leaves are always removed, whereas they are left on the ground in the other: as a consequence, Rhytimma acerinum never appears in the former, but is spread all over in the latter, a fact eaaily explained by the habits of the fungus. The treatment of wound in trees, based chiefly on Hartig's results, also comes in for lengthy discuesion.

The agriculturist and horticultariat will probably be disappointed to find so little asid about apraying of foliage with powders and liquids, bat the three page or so devoted to the subject abound in good sense. Possibly, over-cantion is noticeable about details, or it may be, the author has not fally considered the voluminous literature from America and elsewhere, or has not been able to make up his mind about the reaults. Ramm's experiments with Bordeanx Mixtare, and his idea that the action is due to the copper and is electric in natare [so say the author; but Ramm concluded the action in probably chemotactic] are mentioned, and further on in the book, reference is also made to Frank and Kruger's recent attemptn to show that nome myaterion chemotactic action occur to account for the decidedly beneficial action on Potatos.
Oar own opinion is, that mach remaina to be done along this line of inventigation, but one piece of advice is perfectly sonnd, namely, that apraying must be done with the fallest knowledge possible of the babite of the fungua to be fought, and no mere dates or general directions for the application of these mixtures will saffice.
We may interpolate here what in not ufficiently dwelt apon in the book, namely, that what Rumm and Frank and Kruger find is that the copper-alts affect the host plant, apart from any action on the fungi, by incrasaing the chlorophyll and the manafacture of atarch, by accelerating the maturity and weight of the fruit (Vine) and tabers (Potato), and by diminishing the rate of transpiration. On the other hand, experience alone can decide at to the effect of accumulating copper in the oil, and there in probably no question of greater importance for agricultural and horticultaral committees who have experimental groand and expert advice at their diaposal, to investigate further.
In the special part, which comprises all but 120 pp . of the whole, the plan followed is the aimple and effective one of taking the principal groups of fungi, and treating of their parasitic representatives. In the main, Brefeld's classification is followed. An interesting section on the Chytridiacea, in which fully acknowledged advantage has been taken of Fischer' and Schrözer'i recent monographa, opens the work, and then follow the Oomycetes, in which the far 600 nhort paragraph on the Potato disease will prove the most intereatiag. The fagua has no oospores, bat the myceliam passe the winter in the tubers, a view combated by Böhm, who maintained that we are completely ignorant of the way it wintery. This fungus has been foand on Solanum maricatum in Ecuador, and has been infected into Solanam caribente and Petunia hybrida. It also occars on the Tomato. The use of Bordenax Mixture in recommended and defended.

Pabsing to the higher fangi, the Ascomyceten first receive attention, and a very complete account of the
Exoascese and Witches' Broo Exoascese and Witches Brooms, pockets, \&cc. produced by them is given; Sadebeck's recent work being laid uader fall contribation. The mildew Erywiphex) and Nectria and other Pyrenomycete
follow, including interesting but short paragraphe on Epichlcë and Claviceps. Under the Dincomycen a considerable share of attention is given Woronin's Sclerotinia; and Hartig's account of the Larch disease is accepted in its entirety. The adrice given is, Larches in the low lands (i.e., as contrated with its native alpine heights) should be planted only in airy situations, not in close plantation and never in the neighbourhood of already-dineand
The Ustilaginer receive a very full treatment based on Brefeld's work, and the section on Undineæ is very interenting, owing to the large amond of attention this group has attracted lately at the bands of Erikson, Klebahn, Plowright, Tabeaf him self, and others.
The different varieties of Puccinia graminia en fully give n according to Erikson \& Henning'a recout work (1894), which afford a new glimpe of the compl exity of the problems of heterocism among these fungi. Similarly with the Gymnosporanginm forme, to which also a good deal of attention hu been dir ected of late. Tubeuf has himself worted specially at these forms, and he here gives \& virs full account of the group, with lists of the rarind reault which different authors have obtainel I sowing them on the various Pomact $x$ on which tlisy are hetercesio us. This eection is both interentig and impor tant, and again serves to open up wio vistas in this cifficult domain of mycology. of course, the Witches' Broom on Silver Firs, \&e., the to the well-known Ecidium elatinam reatm attention; an do all the principal fungi whid attack Coni ers and other trees. Many of them latter, especially those which deatroy timber, an Band iomycetes, and Tabeuf hat intrcdaced phot graphic reproduction here-a elewhere it th book-with marked anccess.

T he yatematic or "pecial" part end witt short categorical treatment of the "fungi imperfetl," and phytopathogenic schizomycete and Alga.
On the whole, the author in to be congratulation having produced a book which is decidedly in advance of any of ite predecessors, and which mat be regarded as the mont complete compilation wo possess on the subject. The style is clear, and th print excellent. Fault may perhaps be found with the inequality of the diecusoions; for inatance, the Potato d isease is disposed of in two pagen, wis more than twenty are devoted to Gj mnonporangin; but auch a matter depenc's on the point of viet, wit it is not dificult to conclude that the anthor in elp cially interested in m orphological quention. this as it may, however, there can be no donfo that the work is a aseful and valuable contribation
to science, and will be welcome in all botainal librarien. H. Marshall Ward.

## The Herbageous Border.

## SINGLE AND DOUBLE-FLOWERED PYR THRUMS.

A UBEFDL hint in regard to the above poptly and fiee-flowering group of plants is that given ly the Measre. Kelway - now is the time to platid Indeed, it is more than anefal, it is raluable, ald especially so to those who woald have fine flomath for the year that fullown. But the planting of nath things in Midsummer, with the soil dust-dry in districte, 2 or 3 inches deep, involven a certhiin amount of rink, and probable losses. The latter, how ever, may bo reduced to a minimum by only plarsint well-establiabed pot-plants, not starvelings, then willf no vigour remaining, but such as have been op during prepared daring the past apring for planting anm the present season. There are many, I am invid who adopt ths rough-and-ready practice of divizult these Pyrethrures with a spade at any coaresial time. My own experience goes to prove thamp is nothing to be gained by planting large clump these plants, or even by catting them in b the contrary, such a practice invariably blossome inferior in nize, and thene by no Imen represent the fower in their bent form.
tried aeveral ways and different eeasons, bat fod none to equal that of dividing the plants into emall pieces of, asy, three or four crowneach, and potting them into pots of large 60 aize; then place them in a cold, close, well-uhaded frame for a short seanon till new roots and fresh growth are both apparent. In a month, all being well, they will be ready for planting outagain. This operation is best performed in the early spring, when sbout 4 inches of new foliage has been made, and when the dividing has been carefolly done, the losses are very few indeed. Following thia practice, I have propagated many thousand of these plants. In precieely the same manger these plants may be increased in nummertime after Gowering is completed. At the latter date the plants should be cut down to within 6 inches of the ground, and when new leaves apring from the tafts, lift and divide them in the way recommended above. The planta realting will be ready by the middle or end of Angast, and should be planted out without delay. Sach plants, of course, will not be capable of producing reanalte in the enaning jear equal to thone earlier planted, and for this reason, and the asving of a season's bloom, the apring-propagated planta are mach the best all round. If posaible, get these into their permanent position by the end of May or early in June. Autumn-planting for these Pgrethrume cannot be generally recommended, and on cold or clayey soils they frequeatly dwindle and die ; and, singularly enough, on heavy oils, the plant frequently become a prey to a mall black alug, that demolishes every leaf as soon as it appears. In this manner I have known whole bed to be wrecked daring winter-time, the sloge working anobserved in the trift, in defiance of the unal preventive measures taken to keep slags in general in check. It is a good practice to sarround the plant with coal-asher, as a preventive of the ravages of aluge. When planting at whatever season, the soil munt be deeply worked and heavily manared ; and to secure the best resulta and finent flowern, divide and replant every two years. $J$.

## The Rosary.

THE COUBERT DOUBLE WHITE ROSE.
We had occasion recently to mention this Rose as growing at Kew. It is a form of Ross rugona, o relatively dwarf atature, and large doable flower of great subatance and anow-white lustre. From an article in the Journal des Roses by M. Grosdemange (November, 1894), it appears that this Rowe was raised by M. Cochet-Cochet at Conbert, hence the Rose has been called "Blanc doable de Coabert." It is a most denirable introduction, well auited for bede, shrabberien, or corners.
variorum.
Flowers of the North-west Prairie.On this vast, this seeminaly interminable prairie of the Great North-west Territory of Canada, the flowers are traly beantifal and varioas, and to the true lover of Nature are things of bearty and joys for five month of the year, from the time (May) when that aweet harbinger of apring, Anemone patens. pata forth its light blue cops, not sparingly but by thonasind, till September, when the lovely Gentiana acanlis [?] and stately Sunflower are in fall giory; the coloar of the former being blue as the heavena above it, and the latter brilliant as the jellow aky round the setting sun. The season of these Anemoneshere erroneounly called Crocuses-is nomewhat short, so the flowering is over, and the flaffy heads of seed ripen by the beginning of June. Bat this rapid matarity is not peculiar only to the Anemone, for all vegetation in this land of extreme heat and cold it the same ; ite anpearance is audden, and the growth to the ripening stage simply prodigiour. As the Anemone fade sway they are followed in rapid succession by several kinds of Ranunculus, all being
of a dwarf habit, none so tall as the familise Battercap of the meadows of the Old Country. Then appears, mostly on high ground, in compact clump. a very low-growing plant, which beara a profarion of pure white, almost quare-shaped E วwert. which are evareacent, however, for they last but a week or so . At the same time may be foned, growing in more hamid oil, the yellow Lapin, ite bright flowern being conspicaons from quite a distance. Where the land has been "broken" (ploughed), this plant is almot aure to appear, and continues flowering for several weeks; it produces seed freely. Never shall I forget the delight and sarprise I experieaced when I first came during a botanical ramble upon a fine clamp of Cypripedinm, bearing ten fally-developed flowers, and as I looked with admiration upon this lovely wildling, with ite Orchid-like beauty, it seemed to me to be hardly possible, knowing that but a few weeks before the ground ander its roots was frozon solid for several feet down, that it could retain its vitality in auch trying circamatancen-of auch are traly the wonders of Natare.
Juat now (June 25) the Roner and Lilifs - of which latter, however, I have only met with one varietyare the most conspicuously beantifal; of the former, there are some no dwarf that they almost rest apon the ground, while others are several feet high, their natural growth having almost the appearance of trained standards. The colonts of these hones vary from the parest white to a dark rich red; some are variegated, like the old York and Lancaater, bat all have about them a mont delicious perfame. The fruit, which is produced in abundance, and of aeveral shapen, from perfectly round to very long oval, while some of them are round, with the exception of the top, which is perfectly flat, somewhat like a Medlar. All of them become the food of the prairie chick, and the blaff partridge. The large oval fruit, when fally ripe, can be made into a very nice preserve; this I koow from practical experience. The fiowers are from 1 to 2 inches in diameter, the petals lying wide apart, so that when fully expanded they are quite flat. As $I$ have aid, I have met with but one variety of Lily, which in shape, size, and colour, though somewhat brighter and lighter, with brown spots at the base of the petaip, much resembles the Vallota parpurea, but unlike that handsome plant, the leaves are all produced on the flower-stem, like most other Lilies.
Of Vetches, there are several varieties to be met with on the prairie, all bearing parple flowers, with one exception. which is white, and mach larger; they grow from $\frac{1}{3}$ to 2 feet high. Then there is the "Fairy Flax," which, however, does not 'ope' $i^{\prime}$ the month of May," for it does not come to us till Jane is helf over, when its delicate, fragile flowers expand in great profucion. Of Violets, we have two varieties, the white and the parple, the flowert and foliage being much larger than those of the Old Country; but, alat ! they have no fragrance to waste on the desert air, or awaken fond recollections in the heart of the lonely wettler, for they have not even a suspicion of perfame. Then come the bold-looking, erect, handsome Harpalinms, their rich jellow and brown flowers forming a strong contrast to the elegsat, lightly-poised flowers of the ethereal Harebell, which may generally be seen growing in close prozimity to its more robust sinters. Two varieties of Aquilegia are to be met with here, a dwarf and a giant; the foliage of the former is aimply exquinite. being quite as beantifal ae Maidenhair Fern; bat the flowers are insignificant. The tall giant variety is to be met with only in the "blaff " (woods or bush), where it grown to the beight of 4 and 5 feet; the foliage, though like that of its little siater jast mentioned, is very mach larger, and of greater sabstance, and although bandsome, is comparatively coarre ; ite flowers, also, are no great attraction. The Dairy we have-not the "wee crimson-tipped flower," bat a pare white, with eeveral flowers on each atem, which in sometimes 4 or 5 inches long Of elegant Meadow-sweet there is an abundance, scenting the air with ite fragrance. Pyrolas abound in moist shady placer, their round, brond, frm leaver, and charming Lily-of-the-Valley-like

Alowers frequently covering the ground to the exclasion of all other plants. Auriculas, also, in bere the groand is bumid, bat exposed to tild fall san, are to be seen by handreds in one place; the foliage and flowers, the latter of a light pa-ple with yellow centre, are maller than the variaties in cultiration, bat they have the charac'eratic of their fetted siater of being powdered. Thert apats be seen wide patcher, extending exeral gards scrons, of a beatiful miniature white Evela ting-H, wer, which when gathered when jast in full bloom, will remain fresh and firm for years. I have nome auch which I gathered four years ago, and they are as white and perfect at when firat taken from the prairie. T. S.J.

## Plant Notes.

## heuchera sangunea

In thi very droughty seamon, the above pretty herbaceou: perenaial il exceptionally free in flowering. I recently obarved a nice bealthy batch of it growing with great freedom amongat the many ueful things to be found at St. Clere Gardenf, Kemsing, the seat of Sir Mark Collet which gave me a more favourable impretsion of the plant than heretofore, Its deep-red flowers on atems $1 \frac{1}{4}$ to $1 \frac{1}{2}$ feet high had a quite charming effect in the mass. The gardener at St. Clere's apoke highly of it as a pot plant for the conservatory and greenhouse, and of his intention to grow a good number in pots another season. The plant is readily increased by taking the side-shoota and dibtling them into a randy compoat under a handight, or by severing the young rooted shoots and planting them on a north border at aboats 14 feet apart, to be lifted and potted at a later date. A native of northern Mexico, introdaced in 1882. H. Markham.

## Nursery Notes.

## ALLINGTON NURSERIES, MAIDSTONE.

For many years, with mawavering determination, Menors. G. Banyard \& Co. have been adding to their already extennive fruit narseries, till at the present time it may be aafely anid to contain one of the finest collections of fruit trees in the world. The thousands of young trees, clean, healthy, and free of growth, found in the Allington Narseries of the firm mast be seen for their general excellence to be comprehended. The area under fruit treen is apwards of 100 acres, and the 20 acres recently added have been trenched two spits deep, and are well filled at the present time with healthy planting staff. The trained Peach and Nectarine trees are examples of good management, and being worked on a free.growing variety of stock, any of them would, with due attention, quickly cover a large apace on high walls or trellises. There are 50,000 trained trees in the nurnerier, exclusive of cordons. Almost every known variety is kept in atock, but only the mont approved varieties are extendively caltivated.

Applen were remarked planted in "driftn," ranging from 30,000 to 70.000 in a drift, and the wood is vigorous, the foliage ample and of good coloar, and in many inatances well stadded with flower-buds. In one equare I obsesved 38,000 dwarfo worked three years ago, which were in most cases carrying a capital lot of fruit that promiren to grow to a fair size. It is a matter of surprise how well thene miniatare trees frait, and how bright the colour of the fruite, more $s o$ indeed than from some trees that are cultivated in pota. Plums and Pears are extenively grown, but the latter not in auch large numbers an Apples and Pluma.
One might reasonably have imagined that the drought would have crippled the growth of many of the young trees, but this is not so, the aumerous fibroue roote penetrating the soil in every direction, enabling the plant: to grow unchecked. O wing to
tho regularity conatantly at killing weeds. rees, and, as a fact, it is in the and.

A fiae plantation of Rhases, consisting of some 10000 , was notod, whict, a reparde the Higbrid Perpatuals, passei winter without a plant being any the he bard and long frot. The Tean suffered neven v, eeppecially those badded an stazuarde, ...... "he largely where covered with anom. riesties of fraits from all parta are bein 1. $H, M$ 。

## Trees Anll Shrubs.

## hedy jarum nultijugum.

Tus plant han naturally a loowe straggling babit. The leaven acarcaly pxeand 5 inches in leggth. The racemes are erpet, looge, with fifteen to reventeen flowors, gencrally fowatp; each flower is about $\neq$ iach long, whlet of somy-hlac, becoming blacish as it withers. The pod dipiden into three or foar, flathened, orbicalar disc \% s. add with tootr ' in pr. jureinna from the atnres, and from the centre of tha valve of the carpel. We hare now seen mpentmen from Meters. Barbier, of (OHeana, the Royst fruritors Kow, and the Botanic Gardea, Catupridet, an substantially alike, and in accordanca whe hegal's iusure.

> Colonial Notes.

## THE GOLD COAST.

We learn from the Krw Bulletin that Mr. C. H. Hamphries has been appointed to ancceed the late Mr. W. Crowther as Curator of the Botanic Garden at Abari. Mi. Humitirim bae had three jears experience in the tropical department at Kew, and had previonnly been with Mesors. Keiway \& Son for niad years.

Mr. J. C. Moore hav recpived the appointment of Carator of the Botanic Station, Sto Lacia, West Iadie. Mr. M antw momoloyed before entering at Kew at the garde:... is..adland.

## The W玉sk's Work.

## TEE EAKDY NRUIT GARDEN. <br> Bty W. Popt, Gwed ner. Bighclere Castle, Newbury.

FIG TREES: THINNING THE FRUITB.-It will be pecoseary whera the frate are numeroas to thin them, so st to obtain good size and fine quality. First, those which are toin-shapen from any cause should be removed, then all anderuiz dand late onem. Continue to remove muperflucus noots, wo as to admit munhine to the fruits, and to the shoote reserved for fraiting uext year. All foneright shoot should also be cut awsy! and thort jointed, atardy growth laid-in in nafficient numbar to duly cover the wall-epace withort crowding.

THE BUDDING OF sTOck8.-At this seavon bazuing may be purvomet if a number of raitable tocks have buen prepared. The beat bads will be found on half ruprand shoots of middle mize, woodbuda, that in, such as will produce a bhoot only, being taken. Such bade are readily dietinguinhed from blom-budn by their more elongated and pointed in shape. Be careful to choome healthy, freegrowing ahoote, and not to take them sooner than they are wanted for innerting in the tock. Of covrne, if they have to be aent to a distance, the shoote should be bundled ap is damp mons or the like, and when unpacked, they should be immersed in water for a few houre before making nue of them. The budder must be provided with a pail or wateringcan in which to place the shoota, ataodiag the buttoud in the water havirg firet cut off the blade of every leaf, bat retaining toe stalk. This latter will arve to protect the bud a little, and is ueeful as a handle pherewith the bud-shield may be pashed
into place. Having cotton, soft rafie, or Rasuian bast. cut iato suitable-Ray, of $1 \frac{1}{2}$ feet-lengths, one or two kniven, and a hone, in readinesf, select a saitable bud, and, commencing at its lower end, cat a slice of bark and wood about $1 \frac{1}{3}$ inch, or slightly less, in length, with the bad occapying the middle point; then carefally remove the small portion of wood left in the bark by inserting the end of the knife-handle at the proper apper end of the bark, bend back the alip of wood, which, if the shoot be in a suitable condition, will readily eparate, leaving mo depression or pit bsapath the bad. If a pit be left, the bud is useless. Having made the bud, cut a alit lengthwise in the bark of the stock about 1 inch in length, and at any denired heigbt from the ground: make a cross. cat at the top of the slit, raise the bark a little on both sides with the knife-handle, insert the bad at the point where the cross-cat is made, and push it gently bat firmiy to the bottom of the slit, catting off any of the shield which may overlap the crosscat, and bind-in the bud firmly with bast or buddingcotton. The ligatare will require to be loosened in about one roonth afterwarde. The atock should not be cut back till the autumn or winter, when it may be removed ail bat aboat 6 inches above the bad and in the following enmmer, when 10 or 12 inches of growth have been made, this sagg may be cut off close to the young bboot.

## PLANTS UNDER GLABM.

By W. H. Smith, Gardener, West Dean Park, Chichester.
FERNB.-These plants should now be afforded water in abandance, it being almont impossible to afford too much if the pots are filled with roots, and the plants growing atrongly. Weak manure-water, applied twice a week, will do them good; and nome much diluted soot-water, now and again, will ba found to keep the frond of a good green colour, eapecially if epplied to nuch as have not been repotted this year. When there is a large call for the fronds of Adiantam caneatam, a cood number of the plante should be placed in a frame facing the north, choosing those which have nearly finizhed their growth. This cooler treatment will tend to harden the fronds, and they will last mach longer when cut than tho not manipulated. Tree Ferns abould be examined occasionally for thrifm, or the fronds will soon be spoiled. Sponging them with weak tobacco-water is one of the beat and moat effectual mean of ridding the plants of this peat. [Vaporising with XL All in likewise safe, and a great arving of labour. E.d.]
orange trees.-Thone treen which have net their crop of fruite may be freely syringed overhead. afforded liquid-manure occaaionally, and ventilated freely. All rank thoots, and such as if left would tend to apoil the symmetry of the crown, may be cutin. Any trees infested with aphis should be well famigated, and the leaves cleaned by aponging with soapy-water; afterwards, occasional syringing will keep them clean. Scale is sometime very disfiguring to the trees, and must be got rid of by washen. Trees that were not repotted or retabbed whould be examined as regards the drainage, and top-dressed with rich sandy loam after removing the old soil. It will do the treea no harm, but rather good, if they are atood out-of-doors till the end of August. If they have been growing in thaded housen, it will be adviable not to put them at first in full mushine, although they will be able to bear it sfter a week or
two of exposare.

BAMBOO8.-If thene are grown in pots, they may, if apace be required in the conzervatory for other thinge, be put out-of-doorn, as for instance. in the sab-tropical garden, planging the pote in the beds or in the turf, but finer growth will be made if they are left indoors. Bamboos require plenty of water at the root, and a top-drening afforded every fortnight of Clay's Fertiliser and soot. Bamboo make good-sized bushen when grown in comparatively amall poti; but if large planta are wanted, they munt have good-nized pots, and the present is a good time for repotting. A suitable compost is made of fibrous loam, peat, leaf-soil, foinch bonem and charcoal. A few snitable speciea for pot culture are B. arundinacea. B. mitir, B. atriata, B. violancenm,
B. Simonis, and B. nana.

BCENTED - LEAVED PELARGONIUMS. - Thene plants are general favouriten, and very usefal for conservatory and other unen. Small young plants may be potted into $48^{\prime} \mathrm{s}$ and 32 m and atood outside, and when the potn get filled with roots, stop the ahoote by nipping iff the pointe to give the plante
bushinese.

FANCY, BHOW PELARGONIUM8, \&C.-Pat in cattinge of these, chooning for the parpose aboots that are half-ripened. In the catting-pots ase andy lorm and leaf-soil, and place them in a cold frame close to the glass, keeping the frame close until roots are made. The old plants, after the cattings have been taken, should be stood in a sunny place out-of-doors, and kept somewhat dry at the root for a time, praning them hard back towards the end of next month. \& number of Ivy-leaved Pelargoniums may now be potted, and have three or four stakes put to each, around which the ahoots may be trained. Keep the flowers pinched off till within a few weeks of the time that they are required to flower.

## THE ORCEILD HOUSES.

By W. B. Whitr. Orchid Grower, Bupford, Dorking.
CAT TLEYAS AND LELIAS - In a representative collection of Cattlogas and Lælias, there is acarcelp a week in the whole year in which there is not aume mpecies or hybrid in flower. At the present time the C. Eldorado in variety in attractive. The flowersheat he come up trgether with the new growth, and by the time the perado-balbs are quite formed, the flowers bave pushed up out of the sheath. The blooms, when open, have a delicious fragrance, and in a dry ish atmosthere they will last in beanty for several weeke. While the plant is flowering it needs careful watering, at too much moisture afforded at this time causes the fleoby, half-matured growth to decay; and this not eeldom ends in the lons of the plant. On the other hand, the plant should not be kept dry at the root, but should receive just as much water as will keep the compost slightly moist, and much less moist when the blooms are cat, and the new preadc-balbs fully made up, C. Eldorado and its varieties, pplpadens, crocata, and Wallinii have often been imported, but artificial cultivation doe not agree with them for many yeara together. For several years past our plants have been grown with the Mexican Laliar, but their progress has not been quite astiafactory. When they began to grow laat April they were experimentally placed in a warmer-house, where an even atmonphere is maintained, and kept more clovely shaded than before. The reault was that every plant, even those that were fast deteriorating, greatly improved, and acarcely a growth failed to produce flowers, the mgjority of which carried from two to four good-sized ones. On the completion of growth they will be placed at the least warm part of the Cattleya-house. New root will pash out from the base of the flowering bulb in a few weeks time, and the old roots absequently throw ont a quantity of ahort rootlets. It is at this time that repotting ahould be performed if any of the planta atand in need of it. Cattleya gigas, C. Dowiana, C. D. aure and C. rex may also be repotted soon after the flowers fade. After repotting any of these planta, water ahould be very sparingly applied, just enough to encourage the roots to grow and to preserve the old ones in health. When re-establisherl gradual exponare to the an's ray is necenary to mature the growth, and prepare the plants for their long rest and unless they are properly ripened prematars growth may reault.

ARPOPHYLLUM GIQANTEUM AND BPICATUM:Among Orchids that are not generally cultivated are thewe two species, which are attractive enough When meen with a dozen or more strong bloom-spikes. Both succeed in well-drained pots in a misture of peat and aphagnam-moss, if accommodated in s light part of the intermediate-house and plentifully supplied with water.

MIBCELLANEOU8.-A charming miniature botanical species now flowering is Polycycnis Leth manni. Its flowers have some resemblance to the Swan-neck Orchid (Cycnoches), and it lip is prettily spotted. At the present time it is lept in the intermediate-house, growing in a havg" ing shallow pan with the ordinary Orchid compons to root in. In the cool-house, plants of Epidendrum vitellinum are starting into growth and will be afforded fresh materials to root int without delay. They grow the beat in manll poss in a mixture of peat and sphagnum-mons, the crown of the root being kept above the rim of the pot, the new growth turning black if they are in contact with the noil. Lelia harpophylla may also be repotted, keeping it with the Odontoglomam for the present. This and the preceding apecies grow belf standing down upon the tage amongat other plantas When hang up, the dry carrente of air which reaci them through the top ventilators seem to act
injurionaly on them. An extremely beautifal

Orchid now in flower, is Parius Humblotii. Although coming from Madsgascar, it does not always grow as atiafactorily ander the treatment given to plants from that country, on the contrary, aucceed in a ehady part of the Cattleya-hoase. When in full growth, much water should be afforded, bat no overhead ayringing, or the young breaks become potted, soon decaying. Yellow-coloured thrips infest the growthe, doing mach injary, and being minute, are not readily seen. It iagood practice to dust tobacco-powder into the growth occasionally, or place the plants in a house which is being vaporised. Some growers prefer to une tobacco-paper for the destruczion of thrips, but the tender leaves of the plant in question are sometimes injured by strong fumigation. Oibers occasionally dip the plant into nome afe insecticide, taking care to shade them from the sun's rays for \& few day afterward.

## THE FLOWER GARDEN

By Batley Wadds, Gardener, Birdsall Gardens, York.
bulbs for the spring garden.-The time for ordering bulbs of the florist is now at hand. Single-flowered varietie of Hyacinth are the best for bedding parpones. Good rede and crimsons of these are-Amy, La Reine des Jacinthes, Lord Macaulay, Veronica, and Robert Steiger. White: Grand Vainquear, La Grandesse, Voltaire, and Grand Vedette. Biae: Baron Van Tuyll, Bleu Mourant, Charles Dickens, Marie, King of the Blaes, and Uncle Tom. Yellows: Fleur d'Or, Htroine, and Ida. Porcelain-blue: Czar l'uter, Grand Lilas, La Peyrouse, and Regular. Doubleflowered varietie for bedding are - Whites Anna Maria, Jenny Lind, La Duesse, and La Souvenir d'Aavergne. Red, rose, or crimson: Alida Catharina, Bouquet Royal, Charles Prince of Sweden, Groot Vorat, Princess Louise, and Rogina Victoria. Blae: Garrick, General Antic, and Oihello. Yel low: Gethe. Double and single-flowered Talips for a bright diaplay of colour are more eatisfactory in the apring-garden than any other kind of bulbs for beds, or for planting in patches of six or eight together in the herbaceons or shrabbery borderm. A few good early aingle varietie are Dac Van Thol variou, and Artus acarlet; Brutus, orange-crimson; yellows, Canary-bird and Chrysochlora; reds, \&c., Crimson King, Cramoisie superbe and Duchesse de Parme, red and gold; yellow and orange, Golden Prince; La Grandear vermilion-coloured. $O^{*}$ Pottebakker there are several beantifal varietien. Prowerpine, is beautifal dark rose; $Q$ ieen of the Netherlands, rose; Queen Victoria, white and crimeon, Royal Standard, white and cerise; La Raine, white; Thomas Moore, orange. Early double-flowered varieties are Agnea, Bcarlet; Arabella, carmine; Dıke of York, dark rose with white border; Gloris Solis, reddish-brown with jellow edge; Grenadier, scarlet and gold; Imperator Lady Grandison verment La Candeur, white Led ; Prandison, vermilion; Premier Gladstone, red; Parple Crown, blood-red; Queen Victoria, red and white; R9x rubrorum, scarlet; Rase varieties; White; Tournesol, scarlet and yellow late doable Velvet Gem, crimson and yellow. Good Marriage de varietiea are alba maxima, white Pæony, deld-striped Fille, white flaked with red Rose, yellow, wweet-scented. mundi, rone; Yellow thould be largely planted for mixed borders.

CROCU8E8. - In continuation of my list of last Week, I now give a list of antamn, winter, and tpring-
flowing Crocuses. The flowera are attractive alwayn, and especially those of the early spring, Which appear at a time when flowers of other genera are fem. If planted in the borders of herbaceous plants, in in the foreground of thrubberies, they may stand beds alon of twelve or twenty; for edginge of flowerArabis alpina, Ivy, \&rc, innction with edging of appesrance. Good varieties of Crocus versicolor
are, whites. Chimholm, Quiteen Victoria, Mont Bianc, Caroline and parple $R+1 n e$ Blanche, Grand Conqueror; blue Baron pon Margot, Prince Albert, David Rizzio, Sir John Franklin, Lord Darby, Lord Palmereton, Giant Gulden Yellow, L'Uaique, Othello; yellow, Gold, Albion, Bellow, Old Galden Yellow, Cloth of Patte, Preaident Grant, Nette, Lady Stanhope. Miss Sotit. Other apecies of Crocus are anreus vernar atriatus, nuaveolens, Inperati, odorne, albifnarue, flowering at the end of winter, ondorus, albiflorus,
and April. The autump-flowering species are stivas, bcrotinas, Pullasii, nudifloras, and speciosas. GALANTHUS NIVALIS AND NIVALIS FL-PL., the double and single varieties of the common Snowdrop, should be largely planted in clumps by woodland paths, or under the shade of tref near drives Choice varieties for planting in borders in the garden proper are G. cancanicur, G. Elwesii, G Imperati, G. latifolias Redoatei, G. robustus, and G. plicataf.

ERANTHIS HYEMALI8.-The winter Aconite, the hardiest and earliest spring flower, is a useful plant for covering the moil under the shade of trees, and it is effective as an edging to flower beds. It is a plant of lowly growth that look beut when planted in masse together. It will grow in any kind of oil.

DAFFODIL8.- No bulbous plants better repay the care and attention bestowed on it than Daffudila and Narcinaus. The plants look well either as masem in beds, clumps in the borders, or in other ways, and they never fail to give satisfaction. The woil for Narcissua may be the ordinary anil of the garden, or it may be made up of loam and leaf-mould with quite rotten manure. The drainage should be thorough, or they will do no good. The land should be deeply atirred, and in manaring it, the manare should be put deep enongh, not to be brought into contact with the bulbs ; and before the latter are planted, it should be made quite firm. Planting may be done at depths varying from 4 to 6 inchem, according to size of bulbs. A few good trampet Daffodile are bicolor, Horefieldi, Empreas, Grandis, Dean Herbert, cambricus, Colleen Bawn, Fred Moore, Johnstoni, Madame de Graaf, princeps, Psendo-Narcisatas (the Lent Lily), Shirley Hibberd, Iacomparabilis in numerous varietien, both single and double-flowered. Many other species and varietien are to be found in the bulb dealer's lista.

JONQUILS-If these wweet-wcented flowern are planted, it should be only in sheltered parts of the garden in bed of gond rich noil. The best are the double and single-flowered OJoras, Campernelli major and O . C. minor.

## FRUITS UNDFB GLASB

By Rrohard Parker, Gardener, Goodwood, Chichester.
muscat Vine8.- Vinerien in which are ripe Grapen, will require to be very carefully ventilated, otherwite the berries may be affected by rust, and this is likely to occur if they are cooled by air being allowed to circulate rapidly through the houses. If the borders where the berries commenced to colour were efficiently watered, and covered afterward with atraw, the Vines will require no more water till the crop is cut, but an the prement season is a particularly hot and dry one, it would be well to examine the border occasionally, to ascertain if the soil is approsching dryness, a dry soil soon causing shrivelling of the fruit, and hisdering the development of the young wood. As a bhade to the Vines, a Strawberry-net may be fixed on to the roof to mitigate the fierceness of the sun's ray. If bat a few bunches remain on the Vines, it will be advisable to cut these with several inches of wood, and bottle them; then the vinery may be thrown open, and the foliage syringed daily. Later crops of Muscat should be assisted with abandant supplies of water at the roots. The borders ahould be malched with cowahed manure, and afterwards afforded tepid water in quantity. Where the roots are in both outside and inside borders, the former should be lightly forked over, and manare and water applied as advised for the latter. Afford mupport: to the shoulders of buaches when necessary, uning broad atrips of matting for the parpose, and where necensary remove a berry or two to prevant a too great degree of compactiese.

OTHER VINEB. - The Madrasfield Court Vinet have, so far, given no trouble this neasov, the fine weather enabling us to afford ample ventilation. Continue to keep a gentle warmth in the pipes during the night, with a little ventilation on the top-lights.

Late vineries.-The fruit of Lady Downes and Gros Colmar which has to be kept throughout the winter should be freely thinned. In many gardens the first-named variety will be at that atage when calding is apt to take plece. So far, I have not seen a trace of it yet; but the vinery in freely ventilated during the day, and no water ir made une of in the vinery after 3 P.M., at which time the borders and walla are copionsly syringed. A slight circalation is kept ap in the pipes during the night, while at the same time a fair amount of sop-ventilation is
afforded, which prevent mointare from settling on the berrien. Kaep all lateral growth pinched back and treat the borders as advised for Muncats.

GENERAL WORK - All fruit-houres from which the crops have been gathered hould be throw o open and the roof-lighte removed where portable. Sgring the foliage copiously morning and evening, aud set that the roote are well sapplied with mointure.

## THE KITCHEN GARDEN

## By Johir Lambert, Gardener. Powia Cantle, Welshpool,

GHERKINE, VEGETABLE MARROW3, AND GOURDS -Tae soil between the plants should be forked ap as the bine grows, and the latter should be thinned out whenever it becomes crowded. O:namental Gourde and Pamplin ahould have a piece of alate placed under the fruite, so that they may be lept clean. Remove the leaves bading the froits of Pumpkins and Guards, so as to afford them the fall benefit of aulight to give colour to the skin and ripen them perfectiy. Afford heavy application of manare-water occationally when the frait is $\begin{gathered}\text { welling }\end{gathered}$

CARDOON8 mould not be planted in exponed situations, or the wind will break and injare the tall leaf-atalks. The plant will now require abond ance of water at the roots, and eyringing in the evening.

8ALAD8. - The seed of Lettuces mut be somn at intervals of a week or ten days, and batchen of plant pricked out weekly. The land elected for the crops at this season should be such as does not get the whole day's an, and which is in good beart. Rudimhes, Eadive, and Mastard and Cress shoald be nown at short intervals. Radishes do very well on east or weat borders, and in very light soils on aituations facing north. Eadive will grow almon anywhere, if care be taken not to apoil it by crowding the young plants together.

PARSLEY.-Continue to tranaplant Parsley whenever the weather in favourable for tha jb, remem bering that one can hardly have too much of iso Transplanted in the present month, Pursley makea atrong growth before the winter ; and tran planted Parsley is, I think, better for withatanding frost than antranaplanted. Piant 6 to 8 inche apart, and in some convenient place, where it may be readily covered in case of need.

CABBAGE -If a bed of strong stocky planta be planted at about this date, they will afford heads for lat autumn cutting. The planting should consist of early-hearting, compact-growing varietien, and it should be frequently hoed to keep a loove aarface, and afforded copious waterings in dry weather. Towards the end of the present month the first sowing of reeds of red Cabbage may be made broadcant in beds thinly, or in lines 1 foot apart, thinning the seedlings betimen, so an to obtein tocky hort-stemmed plant.

SEAKALE. -The beds may be occanionally dremed with agricultural salt, applying it lightly just before rain. Do not let flower-head develop, but cut them off at the groand-level when observed.

MIBCELLANEOUs.-Clear off the remains of exhausted crops of all kinds, thus preserving a tidy appearance in the garden, and the land from unnecenary impoverishment. Wherever time admita of it being done, nach land should be manared and dug in readinest for cropping.

Growing Aquatics.-Oace upon a time the writer of thil paragraph was invited to a nursery celebrated for its large business in connection with the growing of water-plante, or, at they are commonly called, aquaticn. At the locality was far away from lakes or ponds, much curionity way felt as to how the large quantity of plants was cared for. It was found that nearly everything was being raised in old kege or barrels, sunk deep into the carth, and where water could be led into them by a hove or other
methods. The hint may be taken adrantege of by those who read of the beanty of aquatics, but do not have laken or pond of their own to grow them in. Old paint-kera, or any venseln that will hold water, can be buried partly in the earth, filled with water, and seede wown; or young planti planted in mud placed at the bottom of the water. Mauy of the maller kinds of water-plantm can be grown in this way without any serious difficulty. The vesmels need not be water-tight. "Meahas's Monthly" for July,

## EDITORIAL NOTICES.

Advertisomonts ghould be aent to the PUBLISHER.
Newspapers.-Correspondenis sonding nowospapers should be carspil to mark the paragraphs Ehoy with the Editor to see.

APPOINTMENTS FOR THE ENSUING WEEK.


CORRECTED AVERAGR TEMPERATURE FOB THR ENSU ING WEEE, DEDUOED PROM THR OBSERVATIONS OF YORTX-THRER YEARS. $\operatorname{AT}$ CHTSWICE.-63:4.

Kamination in
THR class lists of the last examiHorticulture. nation by the Royal Horticultural Society have been issued, and from them and the examiners' report we call the following particulars. It may be mentioned that the oandidates ome from widely different parts of England and Scotland, a centre being etablished wherever a magistrate, or clergyman, or sohoolmaster, or other responsible persoc accustomed to examinations, would consent to superintend one on the Society's behalf, and in acoordanoe with the rules laid down for ite conduct. No limits as to the age, or position, or previous training of the candidates were imposed, and the examination was open to both sexes.

## Exanowiras' Berport.

To the Council of the Royal Horticultaral Society.
Gentlemen,-We beg leave to report that we have examined the papers of the candidatea who offered themelven for examination in Horticalture in May 1895. There were 169 candidatee is all, varying greatly, as unal, in age, occapation, and in the menne of instruction at their dieposal.

Three hundred marks were allotted at a maximum, and all candidates who obtained 200 mark and upwards were placed in the firt clans. Thowe who received between 150 and 200 marks were placed in the recond clant; and thowe to whom 100 makk and upwards were adjadged were ranked in the third clan. The remainder, who obtained fewer than 100 mark, were not clansed
In this way 12 candidate were adjudged worthy to be placed in the firat clasn, 37 in the aecond, and 73 in the third clasa. Tae highent number of marks obtained we 260, by Mise A. U. Gunvin, of the Horticultural College, S wanley.
Connidering the opportunities at the dieponal of the candidates, the resulte may be convidered satie-
factory. The effect of continuou syatematic training is well exemplifed in the class lists. On the other hand, many joung gardenern and mechanica, who cultivate amall gardens and allotmente, but who have not had the opportanity of regular tuition and syatematic atudy, have taken a lower place than they otherwise would have done, because they have failed to grasp the aignificance of the quentions.
We have the honoar to be, gentlemen, your obedient servante,

June 15, 1895. Maxwrll T. Masters,
Jane 15, 1895. Jas. Dovalas.
We can only find room for the names of those oandidates who were placed in the first class, bat we may add that the fall list will be pablished in the Journal of the Society.
Maximum number of Marks obtainable, 300. No. of First Class. gained.

1. Mism A. U. Galvin, Horticultural College, Swanley
2. Mr. Geo. Butcher, gardener, 188, Wellfield Road, Streatham
3. Mis F. M. G. Maklethwait, Horticultaral College, Swanley
4. Mr. Brown, Horticultaral College, Swanley, Kent
4 Mine Alice Hatchings, Horticultural College, Swanley
5. Mr. J. Warner, School House, Weat Street, Dorking
6. Mis Madeline Agar, Horticaltaral College, Saraley
7. Mr, G. H. Cave, 16, Gloacester Road, K $\rightarrow$, Surrey
8. Mr. W. Bell, Kaighton Road. Leicenter
9. Mr.

Edward Damper, The Gardent, High Asharst, Dorking
11. Mr. J. K. F. Jack, Horticultural College, Swanley.

1. Mr. H. W. Ganaton, Frenningfield, near Harleaton, Norfolk
The questions put were as follows:-
Eight queations only bad to be answered: four from Division A, inclading No. 5, which had to be anawered by every candidate, and four from diviaion B.

Divigion A.-Elementary Principles.
1.-(a). What sabstances do planti absorb by means of their roots? Explain the process of absorption by the root.
(b) What element do plant obtain from the air, and by what agency do they obtain them?
2.-Explain the effect on flowering planta of an adequate, s deficient, or of an excensive, amount of heat.
3. -How are "cattings" made? Describe the changes that occur during the process of "atriking."
4.-What are the objecte nought to be obtained in digging the aoil?
5.-Write as full and orderly a deacription as you can of any plant in common cultivation, through all atage of ita growth, from the germination of the embryo to the formation of the eeed.
6.- What organa of the plant are reprenented reapectively by an Onion, a Cabbage, a Potato, Beet, Turnip, and a Pea-pod?
7.-Dacribe the mode of growth of the common Mahhroom.
8.-What is meant by "greenfly"? What in the bent application to rid plant growing out-of-doort of this pest?

## Diviarow B.-Horticultural Practice.

9.-Name six of the beat specien of hothonae flowering planta, and give wome of the general detail of cultare. Name nome of the insect pents that infest auch planta, and atate the bent method to be adopted for their dentraction.
10.-Give general details for growing Pean, and the method of culture, time of nowing, \&c., to give a supply for as long a period as ponible. What in the ase of the nodule on the roots?
11. What is an alpine plant, at the naxe in generally underatood in gardens? Describe the caltural
requirements of such plants, and the beat way to propagate them.
12.-What is the original parentage of Cauliflower and Broccoli? Give the method of cultare, and the beat varieties to obtain a succeasion all the gear round.
13.-Give some details of the calture of Grapvines ander glass. Dancribe the disease to which they are subject, and the insect peste which attack them, and their cure.
14. - What kinda of fruit trees and bushes are best adapted for calture in mall gardens? Briefly deacribe the best method of culture, and arrangeo ment of the trees and bunher.
15. - In a walled garden, what kind of frait treas would you recommend to be planted on the four aspects-aouth, north, east, and west? What distance apart should the treen be? Saggent the bent width of the borders and height of the walln.
16.-(a). What do you conaider the beat clam of moil for fruit trees, and how ought it to be prepared for them?
(b). It there any method of culture likely to provent canker in Apple trees or gumming in Apricots, Cherries, and Plams?

A glance at the above extract from the olam list is sufficient to show the great advantage afforded by training and systematic study. Even when oandidates are approximately equal in their natural abilities, and knowledge of the subject, those that have been specially trained, as at Swanley, have the great advantage of being able to utilise their knowledge. We believe that many candidates fail, not so much from aotual lack of knowledge as from want of care in reading the questions set. For the last two or three years candidates have, we leam, been asked to describe in their own way any plant they pleased, or sometimes a particular plant has been specified, such as a Potato or an Onion, the plant selected being always one with which candidates might fairly be expected to be familiar from constant handling or observation. Now this question is in many cases either shirked entirely, or the candidate gives the details of cultivation concerning which nothing is asked. This seems to show that candidates trust too much to knowledgo derived from books or lectares, and that they do not ase their own eyes or trust to their own powers of observation and inference.

Our fruit Report.-Our tabalar report on the condition of the frait crop in Great Britain and Ireland, will appear in our inaue for Augut 3. The remarks on the crops kindly furnished by our corres. pondents, will appear in aubsequent numbera
hand list of Herbaceous Plants Cultivated in the Royal Gardens, Kew (sold at the Royal Gardens, Kew).-A unefal list of alpins and herbaceous planta cultivated at Kew, and name bering about 6000 apecien. For the convenience of cultivatora the list ia printed on one side of the puge only, leaving the other free for the addition of further entrie or remarks. We notice nearly ninety entrie of Lily namen-italf a refatation of the once-held opinion that Lilies could not be grown at Kew. Now, even other bulboan plants wed for decorative purpose are grown at Kew by following the same plan that is adopted in Holland. The value of the hand-liste an furnith ing a common nomenclature is very great. More over, the list necesmarily inciude the beat kide up to date, and thus superseden the balky catalogat which inclade all sorte, good, bad, or indifferent, is or often out of caltivation.
"The Kew Bulletin" for Jane and July contains a variety of interesting matter. In addi tion to noten on more or lens well known aubjects there are technical descriptions of aewly-form plant in the Solomon Islands, the Transvaal, Natah

Lagoa, Somaliland, and nouthern Arabia. In an article on the Sugar Maple and ite producte, we are glad to see the editor retain the best known name, A. ancharinum. The "accharinum" of Linaxis whe, it appearn, the pecien now better known as A. daycarpam, Sir Charle Wager' Maple. Gonsypinm Stockaii, Masters, connidered to be the origin

Street, Victoria Street, London. At 3 o clock a papar by Mr. P. Brotarrsion on "The Carnation in Scotland," will be read.

CanNas. - We recommend all interented in these gorgeous planta to viait the collection now in blcom at the Royal Horticaltaral Society's garden at Chiswick;
ground-very fine. Some of the newer kinds sent out by Meneri. Padr \& Son are equal to thone diutributed by Crozy.

Epping Forest. - The Raport from the Epping Eureat Committee to the Cuart of Common Council has bean published. It deall with tha allegod uadue


Fig. 14.-hmmbscallis aurantiacos tar. major. (amis. 62)
of the cultivated forms of $G$. herbaceum, and previonaly only known from Sindh, has been discovered by Mr. Bext in outhern Arabia. Sararanga ainuona, Hemsley, is the name of a very extraordinary Pandanus from the Solomon Islands.

The Royal Horticultural Society.-The next meeting of the Royal Horticultural Society will be held on Tueeday, Jaly 23, in the Drill Hall, Jamen
they will be well repaid for their trouble. Among the bent varieties now in bloom are Sfaateur Montefiore, orange-bronze, edged with jellow; Paul Siegrint, rich crimson, thin jellow edge; $P$. Marquart, orange-pink aelf; Gaillame II., crimson self; Pboebus, orange-pink self; Comte Horace de Choisenl, glowing crim*on self; Alphonse Bouvier, acarlet-crimson self, very fine; Star of 1891, orangered; Antoine Barton, with red apots on yellow
and unnecessary catting of timber in the forent. "We fail to fiad," way the Committee, "juut fication for the attack that has been made; on the contrary, we ditcovered many inatances of grost exaggeration." Attached to the report are reprodactions of drawings Which appeared in one of the daily papert on May 4, purporting to reprement the atate of certain apots in the foreat on that day, together with photographs of the same spote two days later, May 6. Jadging
from these photographs, "gross exsggeration" in much too mild an expresion. Another report from the Committee of Experts is expected shortly, so that it will be well to withhold farther expressions of opinion.

THE BLACK RABPBERRY,-Specimen of thir were shown by Mr. Fabini at the latt meeting of the Royal Horticultural Suciety, and some were bindly applied to $u$, and enabled us to identify the plant as Rabus occidentalis, Linn.* The apecipa is very common in Canada and the northern Uuited Sjates, and has bean in culcivation here aicce 1696 . Mr. Farinis apecimens are the result of selection and "interbreeding," [with which species is not mentioned, but probably cronsfertilisation, not true bybridisation, is intended]. Owing to the drought, the fruits which are now about the size of marrow fat peas, are much smaller than usual. Tae canes are ncandent, rooting freely at the tipa, when in the early autumn, they bend over and touch the soil. The planta yield a prolific, but not a continuoas crop. Fraiting laterals are formed at abort intervals all along the stem. Cooked or raw, the fruit is said to be good eating, but it will have to be improved still more before it is likely to find favour with epicures uninterented in the history and evolution of fraits.

Tottenham Chrysanthemum Society. By the kind permission of Biron Schroder, the members of the above Society, to the number of fifty, paid a visit of inspection to the beantifal renidence and garden of Tne Dill, Englefield Green, on July 9. Many thanka are due to Mr. H. Ballantine and membern of the staff for kindness and courtesy in conducting the party through the extenaive range of hoases and ground and in doing all they ponibly could to make the vinit an enjoyable one. An excellent dinner and tee were provided at the "Sun Inn," Eaglefield Green. The firnt meal was preaided over by H. Hexprrson, Eiq., who proved a genial chairman. Driven were afterwards taken into the surrounding country.

Academy of Sciences.-Buron Sir Ferdinand vor Mugleer has been elected a correspondent is the botanical section.

Newcabtle and District horticultural Mutual improvement Society.- The monthly meeting of this society was held at 25 , Westgate Rond, on Tuetay, July 9, Mr. Murrax, gardener at Oakwoed, Wglam-on-Tyne, presiding at an excellent attendance of the members. Most of the evening was spent in naming apecies and varieties, and discatsing the various meritn of hardy herbaceoun plante, several collections of which were brought in by the members. Towards the close of the meeting, the members had an opportanity of viewing a facsimile of the "Magaa Charta," provided by W. Brandpond, from which the eccretary read extracta; also the warrant for the execution of Mary, Queen of Scots, and several other items of hiatoric intereat, which proved highly instractive.

National Carnation ano Picotee Society (Southern Section).-I beg leave to remind your readerr, write Mr. Jas. Dovalas, Hon. Secretary, that the annual show of the above Society will be held at the Crystal Palace on Wednesday, the 24:h inst. Upwarda of $E 150$ are offared in prizes. Amongat apecial prizes may be mentioned the Martin Sauith prizn for Border Camations; the flowers "to be cat from plants which have been wintered without protection in the open border, and staged exsetly an they are cut without dressing." The Turner Memorial Trustees give a handsome Silver Cap, value 85 , for the bent atand of twelve Carnations, biaarren, and flakes, dintinct, and twelve Picotes:
" Rubus oxidents lis, Lian.. Black Raspberry. Thimbleberry. Gooked prickles, not brietly fred, armed like the otalks with hooked prickles, not brintly ; leaflets three (rurely five), ovato,
coarely doubly serrite. whitend-dower coarmely doubly serrate. Whitened-dowry underneath, the lateral ones roseewhat atalked ; pitals shorter than the sepals; fruit parpleblaci (rarely a whitioh variety) ripe early in July. Common, especially nortli ward." Ane Gray, Mamal Bot.

diatinct-amateari only. Aoother special priza (not in the achedule of priza) will be given by Mr. Ernst Bexary, Erfurt, Germany, "The Ernat Benary Memorial Prize." A large Silver-gilt Medal ir given by the firm in memory of the late machregretted founder of the firm, Mr. Ernst Benary, for the most meritorious exbibit, either of plant or cat flowers, by an amatear.

Horticultural Club - The annual excarsion of the member and their friends, to which ladies are apecially invited, will take place on Tues. day, July 30. The member will meet at King's Crons, Great Northern Railway (Suburban), at 930 , and proceed by 9.45 train to Finchley, to view Mr. Peter Kay's graperies. Brakes will be ready to convey the party, at 115 , through Barnet to Hatfield, where the gardens, \&c., will be open to the inepection of the members, under the guidance of Mr. Nomman, the Marquia of Salisbury's neadgardener. Members will return by 845 P.M. train from Hatfield to King Cross.

Teignmouth Gardeners' Mutual ImproveMENT SOCIETY.-A party to the number of thirtysix proceeded on Taesduy, the 9 hh inst., to Bicton, the seat of the Hon. Mafk Rolle, thence to Exmonth, visiting Byatock on the retarn journey. Arrangement had been made for viewing the groves and glasshouses of Bicton, but owing to some unforeseen obstacles the party after going out of their way about a mile and waiting about 1 hoar, had to go away without having seen the object of their viait. Dinner was partaken of at Exmouth, Mr. F. Hannaf ord taking the chair, being faced by Mr. Swan, the gardener at Byatock. After a considerable amount of spechmaking, the party re-anembled, and drove to Byatock, the residence of J. P. Bryce, Enq., which lien 2 milen from Exmouth. Here they were kindly entertained by Mr. Bryce, after having inspected the various aights of the place.

Carnation Diseases.-Profemor Byron HalSTED, at the annual meeting of the American Carnation Society, indicated five disease of the Carnation:-1, Rust; 2, Laaf-apot; 3, Black-apot; 4, Ring-mould; 5, Bacterionus. Number 1 is produced by a fungus, U romyces caryophyllinus; 2 , by Septoria dianthi; 3 in not named; 4 is the Heteronporium echinulatum; 5 is caused by a bacterium. We are familar here with all these troublen, and also, quite as frequentiy, with eel-worm disease, cansed by nematode worms, which is not mentioned in Profemor Halsted's enumeration.

The Late M. Duchartre,-Professor Clos has publithed, from the Bulletin of the Botanical Society of France, his exhantive note on the life and work of this distinguished and amiable botanist. The extent and diveraity of his work as here indicated are very remarkable. His career wat one of great difficulty at first; bat he was never dircouraged, and alwaya seemed to place the intereste of acience before personal conuiderations. His work at the National Horticaltural Society of France is known to nome of our readers, and he discharged the dutien of his secretarial and editorial offise up to the day of his death. It is characteristic of the man, that when Paris was invested by the German army, Dochartas wat in the country. Hi coarse of lectures at the Sorbonne was announced to open on March 17. Eatry into Paric was, as we know, almont imponible; neverthelene, Duchartar aucceeded in gainiag entrance, and delivered his lecture as uaual ! The next day the Commune way proclaimed, but even thim did not check the Professor's sense of duty. $\mathrm{H}_{4}$ continued till hil work was stopped by ministerial decree.

Gladiolus from Offaets.-M. Chozy, wen., mentions, in the Moniteur de l'Horticulture for May 10, and on p. 112, method of maltiplying Gladioli which is little knowa. It connists in raining, under glase, Gladiolas bulbs, and, when the atems have attained a height of from 15 to 20 centimètrem (53 to 7 采inches), in cutting these off quite near the marting-point without interfering with the base,
which, after the appression of the principal atem will give birth to two, three, or even four new shoots, weaker than the first one, but which will, nevertheless, furnish bulbs to flower the following year. As to the detached shoot, it roote perfectly on a hot-bed, and by autumn forms a nice bulb of medium size. M. Crozy has, he say, practised thin mathod of maltiplication for many years, and has never had a mishap. Journal de la Sociétê Nationale d'Horticulture de France, May, 1895.

Hooker's "Icones Plantarum."-This pablication, consisting of lithographic illustration of plants, is mainly intended for systematic botaniats, bat frequently contains matter of interest to horticaltarists also. In the Jane number we find figuren of Argostemma concinnam noticeable, because it furnishes an instance of an annual plant ternainating in a solitary flower-an occarrence o rare that but few instances are known, of course excepting those which are the obvious result of defective natrition, Rhododendron Hancockii, Hemsley, t. 2381, is a native of Yunnan, and has large white funnel-shaped flowern, of such beauty that it is to be hoped it will soon be inûroduced to our gardens. Brandisia racemosa, Hemaley, a Scrophalarineous shrab, also from Yannan, with rich red flowers, is also asid to be a very desirable plant for introduction. The tame remark applies to Jasminum primalinam, Hemuley, which looks like an enlarged variety of J pudicaule. Like the preceding, it is a native of Yunnan.
"The Natural history of Plants."-Thin comprehensive work of Kerner, published in an English translation under the editorohip of Prof. F. Oliver, by Menare. Blackis \& Son, has now reached it fourteenth part. Nothing so comprehenaive has been publiahed since Lindeer's Tegetable Kingdom. Bat while classification was the leading, though by no means the exclusive feature of Lindlex's work, Kernar's biology and phyaiology take a prominent but not an exclusive position. The book is beantifully illastrated, and as a cyclopædic book of reference is excellent. Perhaps it may be found convenient to give not only an index and an analytical table of contente, but also a reference to the principal authorities on the subjects on which the book treats. At present these references aro wanting, and the stadent is no\% informed what or where is the authority for particular statementu. At the work is so much more than a mere popular exposition, auch an addition would bs acceptable.

The Weather and the Crops of 1894 -Mr. Edward Mawley's report on the "phenology" of 1894 ha been reprinted from the Journal of the Royal Meteorological Society. It will be remembered the winter of 1893-4 was not uniformly severe; the spring of 1894 was mild till the occurrence of severe frost on May 21, 22. These ruined the fruit crops excepting Pears. The sammer was generally cold, but the hay crop was good and well harvested. The autumn, as a whole, wau mild and wet; corn ripened slowly, but the field of both grain and straw was large. Oat furniahed a larger crop than any on record. Potato were below average; fruit croph an before anid, deficient, except in the case of Peart The retarnः upon which Mr. Mawley bewee his conclunions number 113, from all parts of the country. New observers are wanted in south Ireland, and in north and east Scotland.

Dr. Schlich's "Manual of Forestry"The fourth volume of this excellent treatise is written by Prof. Fisher, and is devoted to the protection of foreats against the incursions of man or hin mismanagement. A second portion is devoted to the protection of forest againt animals, birds, innectis, weeds, frosts, winds, flouds, hifoing sands, acid fumes, and the like. The work is atated to be an adaptation of Dr. Hess's work, Der Forstshetity, to the conditions and necensities of our country. The book, which is published by Messra. Brapsups, AgNew \& Co., demand a more extended notice at our hands in a future inmue.

The Summer School of Horticulture in Essex. - The School of Horticaltare, the particular of which were given in some recent numbers of the Gardeners' Chronicle, is now in full awing, fifteen acholarships having been given by the County Council of Essex. Among the various place: of interest viaited by the stadents last week was Mr. Sgabroore's yeed-farm at Chelmsford. The effect of the present drought on the size of many plants wat most marked, and Mr. Seabrooke mentioned that his William Hurst Peas which are usually some 2 feet high, were so short thim year that the pod in ripening uprooted the plant which bore them. The Godetias were also atanted, and they were intereating from the manner in which variations and the difficultien of keeping varietien trae were exemplified-matters previously noted in the case of Peas at Mr. Cullen's trial plota at Wittam. With reference to the trouble experienced in separating flower-seed from the plante which bore them, it was learned that when threshing wweet-scented Stockn, veils of many thickneases of material had to be used, as the dast given off had such a choking effect that the men feeding the machine were incapacitated in a few minates, if unprotected. This effect is probably due to the short T-meped hairs, with pointed ends, that cover the aurface of these stock. The party examined a plot of Spinach-beet in fruit which had been self-sown for mix yearm; and also an empty apace which had been planted thrice with Cabbages, only for them to fall a prey each time to the TurnipGla beetle, though generally speaking the county seeme to be fairly fres from injurious in sects just now. Mr. Seabrooke then kindly showed his collection of frait trees, and gave a good deal of valuable information to the atudents concerning some of the varietien, also dwarfing atocks. Perhap the most intereating point brought forward wan Mr. Seabrooke's method, which be had picked up in America, of taking young stocks into the hoane in wintertime, and, after grafting them in comfort by the firenide, of patting them carefully away until they could be planted out in the pring.

Another Horticulturist as Justice of the Peace, - After conferring with the LordLieutenant of the County, Lord Chancellor Heseschell, before giving up his seals of office, appointed Mr. John Wateins on the Commianion of the Peace for the County of Hereford. Mr. John Wateins in the proprietor of Pomona Farm Nurseriea, Withington, near Hereford.

Anthurium, -We have receited from M. L. De Smbt-Duvivikr, of Ghent, a serien of intereating specimens of seedling variations of A. Scherzerianum. Taking them in the order in which they come, we find:-
A. S. Rosa Rooses.-A form with a cream-coloured pathe $8 \times 4$ cent, rosy-crimson at the base, and with a amall central atripe of the eame colour.
A. S. Madame De Smet-Duvivier.-Spathe about $12 \times 9$ cento, deep orange-crimson; spadix robust orange; a very handsome variety.
A. S. var. Duvivierana.- Spathe $10 \times 6$ cent., cream-coloured; mpadix pale yellow.
A. S. var. Gandavensis.-Spathe $8 \times 5$ cent., orangecrimson; spadix slender.
A. S. var, amarantina.-Spathe $8 \times 6$ cent.; red-diah-crimnon; apadix slender.
A. S. var. atrosanguinea.-Spathe $7 \times 4$ cent., deep blood-red; spadix coral-red.
A. S. citron.-Spathe $7 \times 5$ cents, light orangecrimson; apadix citron-yellow.

Shries with Double Spathrs.
A. S. var. bispatha.-Spathe $7 \times 3$ cent, rich red crimson; the second apathe nomewhat amaller.
A. S. Prince Albert.-Spathe $6 \times 3$ cent., wecondary apathe somewhat amaller, both dull crimson.

## Serirs wite Multiple Spaties.

These are form wherein, in addition tod the primary apathe, each flower, or a large proportion of them, is
abtended by a much maller concave "spathella" (see fig. 15). These are the varietien now called "pomponate." We do not find thin word in the Latin dictionary, bat it is doabtles derived from the French "pomponner," pompon being an ornament worn on a soldier's cap. Littaítells as of arench "aying "Avoir le pompon,", which be interprets as "being in the first rank." The term pompon is applied to miniature Dablias, Chrysanthemums, \&c., bat the application of the adjectival form pomponate is new to us.
A. S. pomponatum rubrum has a reddish crimson spathe, $7 \times 4$ cent., and very numerous pathellx of the same colour.
A. S. pomponatum album bas a primary apathe, $8 \times 5$ cont., cream-coloured, with numerous apathellæ of the asme colour; padix yellow.


We are glad to see M. De Smet acting on a recommendation often made in these columna when wo have received these and other monstrous variation. Of Anthurium Scherzerianum we have now1, aimple-spathed form (normal) ; 2, duplex-apathed form with two or three apathes; 3, multiple-spathed or "pomponate" forme, with mumeroa secondary emall spathes. As to colour, there are "selfcoloured," "albino," "spotted," and "utriped" forms.

Publications Received.-Contributions to the Queensland Flora, by F. M. Barlex, F.L.S., forming Botany Bulletin, No. 10, from the Department of Agriculture, Briabane, Queenaland, May, 1895, contain numerous deacriptions of planta lately added to the flora of the colony; also, from the same department, Bulletin No. 5 (second meries), devoted to $A$ Half Century of Notes for the Guidance of Amatewr

Fruit Growers, by F.M. Bailey, F.L.S.-Erom the Cornell University Agricultaral Experiment Station, Horticaltaral Diviaion, Balletin 84 (Janary), on The Recent Apple Failures of Western New York, by L. H. Bailey.-Bulletin 86 (March), on The Spraying of Orchards, by E. G. Lodeman.-Bulletin 87 (April), The Dwarf Lima Beans, by L. H. Bailur.And from the Entomological Division, Bulletin 93 (May), on The Cigar case Bearer, by M. V. Suinger-land.-Firutta Minora, del Prof. A. Pucci, Milano Ulrico Hoppli.-M. Correvon, Les Plantes Alpines et des Rocailles (Paris, Ostave Doin).-Handbuch für Botanische Bestimmungsïbungen, von Dr. Fhanz Nirdinzu (Laipaig, Engelmann, Plant Diagnoses).Traité de Culture Potagere, par J. Dybowser (Paris. Masson).-Petit Atlas de Poche des Champignons Comestibles et Vemenoux, par Padu Domír (Paris. Paul Klinsieck).-Experimental Plant Physiology, by Dr. Waltee Oey, translated by 1). T. Macdougal (Morris \& Winson, Minneapolin) - The New England Blossoms and their Inbect lisitors, by Clarence Moore Weed (Boston and New York: Hocghton, Mifflin \& C 0 ). To some of theme we mat refer on another occasion.

## MARKET GARDEN NOTES.

Mr Sharpis Strawberry Gardens at Knowle, near Virginia Water.-These gardene are famoas for their Strawberries, and well known from the fact that they are open to the public, and anyone on payment of one ahilling may eat as many as he chooner. A good many varieties are cultivated, including British Qaeen and Marguerite-the latter atanding high in the eatimation of visitors, although less firm in the flesh than other varieties. It is also Mr. Sharp' favourite variety, on account of the picking lasting longer than othern. Eugèn and Oxonian were in plendid condition on the occasion of my visit; but for excellent cropping nothing could excel Comte de Paris, the crop of which wat enormous.
There are one or two point: connected with the cultivation of the Strawberry at Knowle I would like to mention, namely, no manure hat been used for twenty years, although Strawberriea have been grown on the same ground all that time. The soil is light and sandy, which soon falle to dust in dry weather, yet at 3 inches deep it retains a good deal of moistare, even in this dry season. The plante atand 2 feet from row to row, and 18 inches apart in the row, and they are allowed to atand from five to aeven year before being renewed, and the plant notwithatanding looked healthy. Yet one could not help noticing the vigour of some Strawberry planta which had been planted on ground on which nome weed and litter had been burned, and the ashes strewed around. These patche were so conspicuous, that Mr. Sharp, jan., remarked on the way the Strawberry neem to revel in aoher and burnt refase; and aid that manare would be of ome advantage for a change, and so for the first time for twenty years they have planted a portion of the young plants on manured ground. There is one advantage which planta grown withont manure have-they do not throw many runners, and the land is not mach infested with weeds. The perfume from thene Strawberry gardens was so powerfal, you could distingaish it some handred yard before arriving *s them. \&e Bemnett, Tome, Chertrey.

## Home Correspondenoe.

ANTHRACITE COAL $v$. BOOT A8 A MANURE. -I have been waiting to wee whether any of your readers would reply to the queation under this heading, which appeared on p. 747 of the last volame, but I must have overlooked any reply, if anch has appeared. I do not quite nee how carbon qua carbon in the form of coal-duat can be of so mach ane as moot, which I take it is used not because it is mainly carbon, bat on account of ite manarial value (ammonia) for one thing, and chiefly because of its odour, which tend
to dingat many of the insect peaty, e.g., the Onion\&y. It would be intereating to learn whether carbon is manure for planta. In the form of charcoal it is, no doubt, very unefal, bat thea that is not because it is carbon, bat on account of its power of attracting oxygen, and so helping to sweeten the soil. It is worth while mentioning, however, that a patented manure, many years old, was atated to be made of stone-coal (anthracite) and sulphate of iron, and it was said in testimonials to be useful. Personally. I do not think "G. S. H." will find anthracite "daff a subutitute for soot, which in raluable in more waya than one. Saml. Ray.

In reply to the above (vol. xviio, p. 747), I do not think "G. S. H." would find "daff" of sny value as a manure, unless his land be of a stiff clayey, or light calcareons nature. In these casen the application would have a mechanical effect, opening and lightening the clayey soil so that air could pan into them roore freely; and darkening the colour of calcareons soils, which would make them warmer. Oa sandy soils it would be harminal if used. The value of "duff" sa \& manare-apart from its mechanical improvement-is not worth mention, there being only about 50 per cent. of nitrogen in an average sample, which is the only plant food it contains. The carbon is present in a mineral form and will resiat decomposition; consequently, it would be years before the nitrogen becams available for the use of plants Soot is a good manure, for besides anpplying plant food, it will improve the mechanical condition of all-except peaty-soils. The carbon in soot is present as organic matter, and can therefore readily andergo decomposition. An average sample of soot contains 4 per cent. of nitrogen, chiely present as salphate of ammonia, from 10 to 14 per cent. of alphate, carbonate, and phosphate of lime, aboat 7 per cent. of chloride of a odiam and potassiam, and 25 per cent. of silicates of lime and magnenia, all of these being mabatances required by planta in their nutrition. W. Dyke, Turnford, Herts.

CARNATION DUKE OF YORK AND OTHERB. When Mr. H. B. May eent out from Dgan's Lane Narwery this fine variety, he earned the thanks of all admirers of Carnations. When at ite beat the colour may be deacribed at a brilliant shaded crimson, large, full, and finely formed; a good grower, which does not plit its calyx. It wants but one more quality, that of fragrance, and then it would be perfect. In respect of the possession of this quality, the maroon-coloured Uriah Pike han a great advantage over it, and probably the latter is rather more free in blooming. Bat both are invaluable to any one who grows for catting parposen. When are we to have a fragrant yellow eelf? I have never yet met with one that posseased fragrance. It may be coming, but it doen not appear to have made iteelf known as yet. Germania would be perfect an a yellowself had it the clovescent of Uriah Pike. It in sometimes said that Gormania is not a good grower, but I recently aw at the Roysl Nursery, Sloagh, e number of two-year-old plants in pote, large in vize, vigoroas and free branching in growth, and remarkably free. Mr. Harry Tarner said mach finer fowert could be cut from auch two-year-old planta than from yearling ones. $R$. $D$.

CHOICE HARDY RHODODENDRONB.-It in a pity that Mewirs. Anthony Waterer \& Son of the Woking Narneries did not anme some at least of the newer varietie they exhibited at the Drill Hall on June 11. Some of them, and especially the delicately-tinted pink and pale rose varioties, have yellow and orange blotches and spotting on the upper eegmenta, which of late years have become conaiderably deepened in colour. One of the mont atriking of this sype is Mra. Prjce Lade, blumh or delicate pink, with a central buach of rony atamena, aad orange blotch and markings on the apper regments. Lady Grimeton is almo very fine, and a good grower; it is faked with carmine on a pale ground, and hae atriking top petals. A. B. Mitford is a large and finely-formed deep bright rosy-crimion variety, with dark spots on the upper segmente. One of the mot striking is picturatum, pink thaded with rome, the apper segments marked with large dark blotches, giving it the appearance of a Pelargonimm. Some of the unnamed needlings are also of fine character. Ro, Ealing.

EAFLY PEAB.-I have read with interent the aotes on early Peak by "A. H.," in your ianue of the 13th inst. To gardeners, the new firt early wrinkled varietion of Pene are of great value, being of superior flavoar to those Peas which have round seeds. I have grown mont of the wrinkled Peas, and find that

Harbinger, a variety sent out by Dicssone, Chester last vear, to be saperior to any other that I know of it being quite as early Exonian; and although the pods are not of such a deep green colour as that variety, they are larger. which is a valuable point in an early Pea, and the Pass are of excellent flavour The variety Gradus is a valuable second early wrinkled Pea, and when groweri can depend upon getting it true to name, it will become a general avourite. The introduction of these fine Peas should lead to the extinction of inferior varieties. $M, G$,

PYRAMIDAL SWEET CHERRY TREE8.-It is aeldom that awet Cherries are grown as pyramid in private gardene, a fact probably due to the unastisactory way in which they fruit, and to their liability to saffer from gumming. In gardens where wall space is abandant, and a western aspect can be devoted to these fruits, traly fine crops are obtained annually, and pyramida are not needed; but where wall space is not at hand, other method have to bi adopted for the production of sweet Cherries, and to my thinking, the pyramid seems the right sort of tree. It is, however, evident that the let-alone method will not do, and something more is needed than simply proning and dressing to bring the trees into good fruiting. There exista in a garden not far from Maidatone a very fine lot of well-grown trees, which for the past four or more years have produced exceptionally heavy crops of large luscioun fruit. The trees in question are planted moderately close together, so that in the froiting eason a wooden framework is easily placed over them, and over these some fish netting. This keepl the bird from the fruit. These trees are growing on the Mahaleb and Cherry-atock, and they are moderately pruned annually, so as to prevent a too free growth of the shoots. At these pranings some of the atronger roots are severed at a distance of 3 feet, measured from the atem, and as a consequence there is a man of healthy fleshy roots at a ahort distance around the atema. Daring the growing season the young shootn are constantly piached to assist in the formation of froit-buds, \&ec., so that both at top and bottom the trees are much restricted-a practice some gardeners might regard as too severe. However that may be, a better and more fraitfal lot of trees could not be wished for than thees; and the pinching and root-praning will be persiated in ao long as the tree bear as freelp a at present. Of the early varieties I map mention Frogmore Bigarrean, Early Riverp, Black Eagle, Kentish Bigarreau, Napoleon Bigarrean, and Elton; later ripening ones are Fiorence, Bedford Prolific, Black, and Tartarian. All of the Dake Cherries are well demerving attention of the gardener. H. Markham.

TOMATOB NOT BWELLING OFF.-The caute of Nareeryman's" Tomato fruits not swelling, is either owing to imperfect fertilination of the bloome, or to the plants, at an earlier stage, having received s check. As the frait is welling well farther up the stem, and if there in plenty of light between the plants, and thene are vigorous, I would advise the removal of all, or a large proportion, of the lower leave of the plants, encouraging a shoot to grow from the base. This would soon olothe the bare stam, and if the variety is a free-setting one, fruit would in due course put in an appearance. This thoot could be stopped after showing three or four trusies. A similar case came under my notice a fer days siace, when visiting a friend' Tomatohouses ; and, in this case, the plante were planted prior to the continued frout in February. The aite is very low, and the woil, being cold, checked the proper extention of the roots ; while the topm, being in a well-heated house, had, at the time, apparently not noffered. At present, the root mut be active indeed, as evinced by the vigorous shoots above, and a good crop will doubtless enaue. $P$. $F_{\text {. }}$ Le Sueur, Grand Vale, Jersey, July 13.

ARAUCARIA IMBRICATA,-On the terrace-garden opposite the south front of Alderbury Vicarage, Salisbury, is growing a remarkably good specimen of the Chili Pine (Araucaris imbricata). It was only 9 inches high when planted by the Rev. Canon Hatchinge' gardener in 1851, now it is about 40 feet high, straight, and of handsome outline, and having a tem $3 \frac{1}{2}$ feet in circumference a few inches from the green sward, which is bruwhed by its branches. And when I say that the tree is bearing about thirtyfive large flowers newr the top, readers of the Gardeners Chromicle will anderatand that it is in robust health, though one or two of the branche clone to the ground thow alight signa of diatressprobably caused by the combined influence of the
anasually dry aummer of 1893, and the pqually exceptionally severe frosta experienced in January and Febraary lant, followed by the prevailing tropical weather of the last eight or ten weeks. Canon Hatchings, however, il of opinion that the distren referred to is owing to the fact of the roots having penetrated the sandy sub-soil-the natural sarface oil being light, inclining to peat. This circamstance reminds me of an avenue of fairly good axamples of Aracaria imbricata which I saw eeven or eight year: ago at Branksome Dean Park, Lord Wimborne's place at B Jurnemouth, which were then exhibiting proofs of declining vigoar, and the nataral soil and ab-soil at Alderbary Vicarage and Brank some Dean Park are, judging by appearancev, vary mach alike. This being so, what practical inference are we to arrive at other than that the Chili Pine delights in a soil inclining to be peaty rather than otherwise, and which is well drained, and that to long as the roots are retained in this, and the tree being protected from the effects of north and eant winds, so long will it make aatisfactory growth. H. W. Ward.

VINE PERONOBPORA.-I send you a few mildewed Vine leaver and immature Grapes of the kind known as San Gioveto (the best quality used in making Chianti), as it may interest you to see the progrem of the diseave, and the effect of the Bordeaux Mixture apon it. They came from the podere attached to this villa, in which the Vines have been carefally medicated every year with the above mixture, since it introduction as a remedy. Nevertheless, this year the mildew made its appearance with the opening of the leaves quite early in May, and although the remedy has been applied three timos already, and in doses of more than doable the usual strength (that iv, 2 kilogrammes instead of 1 of aulphate of copper to a quintal of water), the disease is by no means subdued. Of the four leaves ment, the topmost is one which opened early in the season, received its done, and is cured. In the second one, the disease has been permanently arrested, but has not disappeared. The third leaf has been twice medicated, but the diseave is atill spreading. The fourth is a leaf of recent growth which has not yet been treated, which the fungus has attacked with extreme weverity, and which would certainly wither. The effect on the fruit is ach as I had not hitherto reen. As a rule the disease han appeared with ut much later in the season, and its effect has been to prevent the Grapes maturing, leaving them light in colour and acid to the tante. Owing, I appose, to the extreme humidity of the year, ap to the end of Jane, the disease began early, with the result on the Grapes that you see. The Vinns presented a grew promise of fruit, but at least half of it did not flower, rotted at the stem, and withered. Thousands of fine bunches have gone that Way even in this well-tended vineyard. My neighbour who have been lens careful in this and previoun years, have no fruit left at all. The Bordeanz Mizture proven itself to be a palliative of this ever jet appeared, I think, but far from being the complete care too often claimed for it. That has yet to be dircovered, and if it be not, the art of Vine-growing an a profitable industry may aome day be as extinct an the Dodo. Thomas C. Hayllar, Florence.

MONA'S PRIDE POTATO.-My experience with Mona'a Pride has not been a very favourable oule, and I have grown it three yers in all sorts of wayl. Bettor onea are an follow:-Star of Roading, which wan sent to me for trial two years nince, is a nicelooking taber, early, a good cooker, and an abundant cropper. We have found fifty tubers at one root, the average number being thirty, an extraordinary number for sach a small plant; the height of the haulm in about 1 foot. Myatt'a Ashleaf is very good on our land. Daniela' Table King is a good variety, and I almaya cultivate a good lot of it, as it comed in to well after the above, and before white Beanty of Hebron. It is a good taber, and mach to be proferred to the pink variety, with the exception of white Beanty of Hebron. The others are all dug ap, and done early. They were planted on March 12 , and we begar to dig them on May 26. I have aboul, twenty more varieties, mont of them new for trisl, which I hope to report upon in a few
G. Howes, Merton Hall Gardens, Thetford.

THE ROUNO LEAFED BUNDEW,-It may not be generally known that the roand-leafed Sandow (Dromera rotuadifolia) occure in the greatent pros. fuiton near the wource of Brony Buro, Callen, Banf-
shire. The exaet locality is 300 feet above sea level, on a atrip of bog-land, alongaide of the plantation between Barnsford, and the line of the march that divides the parishes of Deskford and Rathven. At the present time, the bright-red leaven of this intereating carnivorous plant appear in their greateat beanty. W. Kelly, Aberdeen.

PAULOWNIA IMPERIALIS.-Thi noble tree, like many other natives of warmer countrie than our own, has felt the severity of the past winter. I examined the other day a fine tree fifty years old, which is in full leaf, but bearing no flowers. In other years it han flowered profusely on the naked wood before the leaves appeared. The flowers are of a dark violet hue, borne freely, and about the size and shape of a Foxglove, and a well-flowered example makes a atriking ob.ject; the leaves being of large size and apread out horizontally, make it a fine shade tree. Paulownias are often recommended for town planting, bat one seldom meets with them in England; on the continent, however-in Pariv, for instance-they are plentifully planted. A. Hope.

## A PROLIFEROUS POLYPODIUM.

Ma. G. B. Wollaston, of Chielehurat, hanvery kindly aent mea frond of Polypodium vulgare var. elegantiesima (fig. 16), upon which the development of the rare phenomenon of aral bulbils appeara remarkably profusely. Herewith I mend you an enlarged aketch of a pinna ( $X$ about 3 ), ahowing how the cluters of bulbilis are developed in lieu of aporangia, which, except in an aborted atate I have been unable to trace. At first aight, and before the little fronda appear, the abnormal sori appear exactly like the aposporous growth which have been recorded on A. fof. Clarimima, but in this case the next step in the direct formation of fronds instead of prothalli, and from the ready growth of these when laid down in congenial soil, I have no doubt whatever that proper axis of growth will follow, and independent planta reault. The Polypody family, due, probably, to the proviaion for eavy extenvion of habitat through the creeping rhizonce to which it owe it generic name, is very rarely balbiferous, and this instance merits record on that groand alone, apart from the interesting tranaformation of reproductive energy which it represents. It appears to be identical in character with the soral bulbile noted in Adiantam capillus-veneris vars, daphnites and imbricata, already recorded in your columne, while the soral bulbile noted in the species Athyrium differ in being usually solitary and accompanied by numbers of perfect sporangia to which they seem to bear no analogy, i.e., they make their appearance as bulbila proper and quite distinct in character from the asoosiated growth. Chas. T, Druery, F.L.S., 25, Windsor Road, Forest Gate.

## SOCIETIES.

## IHE LONDON PANEY AND VIOLA.

Jour 6.-There was a great demand upon the available npace of the Crystal Palace on the above date, and the London Pansy Society's show had to be content with a vite immediately in front of the orcheatra, but in a position favourable to showing off the flowers to the best advantage. An at Birmingbam, the fancy Panaiea in the open clasm and the leading flowers in the amrteura' division came mainly from the North, and they were, on the whole, remarkably good deapite the prevailing drought. Show Pansies came entirely from the Nortb, and were an ual somewhat limited. Violas in fretty epray were very numerous, and in these clannes the Southern growers held their own with considerable credit to themelves.

Open Collections.
Open cluises. - There was but one collection of Pansies and Violas, Mr. S. PYe, Gaterall, Gazstang, winning the Gold Medal of the Society with a superb exhibit, having twelve boards of fancy Pansies, twenty-four blooms in each, and four panela, each containing forty sprays of Violas, all prettily and effectively arranged. Among the fancy Pansies were fine examples of Mrs. J. Travis, W. H. Clarke, Lord Hamilton, Mrs. R. G. Moir, Miss Stirling, Mrs. D. Jobnstone, Miss Abercrombie, J. Crawford, W. Stewart, M. Bain, J. Samuel, J. McFarlane, G. H. Clarke, Mrs. R. Tleming. Mrs. Markie, Tamwarth Xellow, Mra. D. MreNeill, Mry Kay, Mrs. G.

Paddie, T. Gardener, John McLellen, T. C. Hedderwick, Miss Pattersou, Tom Graham, John Myles, Jessie Travis, Maggie Burn, J. Robertson, and Dr. Bostock-a very fine selection for anyone needing one. The sprays of Violas were representative Grandee. King of Whites, Christiana, Mrs White Flag, Grandee. King of Whites, Christiana, Mrs. D. Ferguson, Lemon Queen, Geo. Lord, Gold Crest, Lord Elcho, Yellow King, Wonder, Ardwell Gem, Blue Gown, Waterloo, Sweet
Lavtnder, Crimson King, Commodore, Iona, Charmer, Mrs Lavender, Crimson King, Commodore, Iona, Charmer, Mrs.
Wood, CCuntess of Kintore, Maggie Todd, Mrs. Crane, Duchess of Rothesay, \&c.
Fancy Pansies. - There were five stands of forty-eight fancy Pansies, Mr. J. Sutherland, Lenzie, N.B., being placed 1st, with clean, fresh, bright blooms of Col. J. S. Stirling. Mrs. W. Watson, Miss Stirling。Magkie Mc Phail, Jas. Irvine, Miss Patterzon, Taraworth Yellow. Mrs. Fleming, Mrs. Sherrard, Marmion, Goorge Stuart, W. H. Clark, Bernard Doulton, rard, Marmion, George Stuart, W. H. Clark, Bernard Doulton,
Mrs, M. Cuthbertbon, Dr. G. McKay, Jessie Russell, Celtic Gem, Mahogany, Jenny Lawson, and Princess May, as the very finest; 2nd, Mr. M. Campbell, Blantyre, N.B.
There were five collections of twenty-four varieties, Mr. A. Lister, Rothesay, N.B.. being placed 1st.
With twelve blooms, Mr. J. Smellie was 1st, having the following in fine condition:-Mahogany, W. H. Clark, Mrs. W. Steel, Ella Murray, Marmion (a beautiful soft flower), and Maggie Watson; Mr. J. LISTER was 2nd.
The best twelve of any one variety were those of Marmion, from Mr. J. Smeille; Mr. A. Lister coming 2nd, with Col. R. G. Buchanan.

The best twelve unnamed seedlings came from Mr. $\mathbf{\Lambda}$. Lieter; and Mr. J. Smellie being 2nd.


Fig. 16.-1 proliferous polypodium.

Show Pansies, -Mr. J. Smelure had the best twelve varietiee, viz.:-Dari selfs: J. T. Howard, and a seedling: yellow setfs: Maggie Benson and Mrs. John Hunter; white selfs: Bobbie Harper and a seedling; yellow grounds: R. M. Wembey. Busby Gem, and John Brand; white grounds: Mrs. Wilson, Mrs. Brown, and Jessie Thompson, Mr. J. IISTER was 2nd ; his leading flowers were-dark selfs: Harry Paul and R. Mcallister; yellow self: Willie Irvine; white ground : Mra, John Stewart; white self: Bobbie Harper; yellow ground: Mrs. John Hunter.

## Amsteurs' Difision.

Fancy Pansies.-With twelve varieties. Mr. J. McFarlane, Glasgow, was 2nd, having Maggie McPhail. Annie Knowler, Mrs. D. Johnstone, and Mrso W. Watson, very fine. Mr. Thos. Nades, Alvestan, was 2 nd. With six varieties the same exhibitars were severally lst and 2nd.
The best twelve Fancy Paniles of one variety were thoee of Tamworth Yellow, from Mr. NADEW: Mr. MCF $\angle$ RLANE was 2nd with Maggie MePhail.

## Open Classes.

Violas.-Various stands were employed for exhibiting sprays of Violas, but all were Licely and effectively displayed, though we thought some of the flowers over-large. The best twenty. four eprays, six blcoms in a spray, came from Mr. J. SMELLEE. With twelve eprays, Mears. Pavi \& Co. were let. With air varieties of raylees Violas, Mr. A. J. Rowberry. South Woodford, was 1st, with cham ming sprays of A. J. Rowberry, deep yellow, Bluah Queen, Christiana, Border Witch, Vestal, and Blue Gem; 2nd, Mr. W. Baxt\&R, Wohing, with some capital sprays.
With aix sprays of the miniature type, Mr. A. J. Rowberary was agaiu 1st, having Marginata, Violetta, Olivetta, Emily, and two seedlings ; Mr. J. Nichorsor was 2nd.

IVolas, Anateur Classes. - with twelve sprays, six blooms in a spray, Mr. H. A. Needs, Woking, was placed 1st, having charming illustrations of Lemon Queen, Duchess of Fife, Iona, Ardwell Gem, Admiration, \&c.; Mr. A. J. Rowbrriy way
2nd. With gix aprays, Mr. E.C. Smith, Muswell Hill, took 2nd. With sir sprays, Mr. E.C. Smith, Muswell Hill, took
the 1st prize ; and Me. W. Bucking. Chingford, the 2nd. In the lst prize; and Mr. W. Buckrva. Chingford, the 2nd. In
a few other small classes the exhibitora already named were a few other small clas
The best fancy Pansy in the open classes was Grorge Stewart, shown by Mr. J. SuTherland, Lenzie: that in the amateurs' classes Mr. David Johnstone, from Mr. J. McFaridne. The best gpray of Viola in the open clesees was Florizel, deep lilac, shown by Mr. S. PYE; the best in the amateurg' classes, Christiana, pure white, with yellow eye, from Mr. H. A. Needs.

A large collection of Violes, not for compotition, was ataged by Messrs. Dobbie \& Co. It consisted of eome 200 sprayo comprising 130 varieties, and thoroughly representative of the bost, new and old. Sweet Peas were also included, and a
good strain of Auriculaered 8 weat good atrain of Auricula-eged $\$$ weet William.

## IPSWICH HORTICULTURAL.

Jolr 9.-This Society got back to its old home in Chriatcharch Pak, on the occarion of the lat show The Pask with all its fine Spaniab Cheatnuts and other trees has now become the property of the town, and is open to the pablic frep, with the right to close it for twelve day in the course of the year for furposes approved of by the Corporation. It is popalar, and has been used to sach purpose that the grass is literally trodden off by thounands of basy feet over mont of its area. It was suggested to some of the authorities that baving, we underatood, liberally and well-spent some $£ 60,000$ on this open apace for Ipawich, they might connect it with the town mains, and keep the tarf alive and green during periods of drought, by frequent overhead watering. Even the fine trees looked less green and ahady than asual.
The show this year in the old home, however, had very substantial merit, though neither to large nor so good as we have often seen under the fostering auspices of this Society. The most notable reductions were among Roses, which was doubtless largely attributed to the great Rose show of the Royal Horticultural Society at the Drill Hall, London, on the same day, and Rose shows in other places, as well as to the drought. But in the main the show of Roses resolved itsel into a contest between two amateurs and two nurserymenthe Rev. Hugh Berners and the Rev. A. Foster-Melliar, and Mr. Frank Cant and Messrs. Prior \& Sons, of Colchester. The Silver Medal of the National Roee Society for the best Rose in the show was won by the latter with a fine bloom of Francoit Michelon, though it was ron pretty close by a very freeh though rather sraall A. K. Williams, and the bett of this charming half dozen, Gabrielle Luizet, staged by Mr. Berners, In the class for thirty-six Roses, Mesars. Frank Cant was 1ut, and Mesers. Prior \& Sons 2nd. For twelve Roses, three trusees of each, Messrs. Prior were 1st, and Mr. F. Cant 2nd truses of each, Messrs. Prior were 1st, and Mr. F. Cant 2nd.
Theee were among the sicheat features of the show. For twelve Teas and Noisettes, Mr. Frank Cant was lat, and Mesers. Prior 2nd. For twenty-lour Rooes, distinct (Amateurs), 1st. Rev. A. Poster-Melliar, Sproughton; 2no, Richard Berners, Harlstead. For six Roses, throe trumes of each (Amateupe), 1st, Mr. Foster-Meiliar ; 3nd, Mr. Berners. Twelve Roses distinct. single trusees, 1st, M. D. W^RMER, Eeq. Twelve Tea aud Noisette Roses, 1et, Rev. HUGh Bernerm. Six Roses of one variety (Amateurs), ist, Mr. Bernirs, wath a charming six of Maasme Gabrielle Luizet. Four Roses, single trassep, giown by residents in the borcugh (Amateurs), 1et, Mr.CC RDER. Six Tea and Nci ette Roses (Amateurs), ist, Mr. W. Passong. A charming bow of l'Idéale from Mr. Mr. W. Past, were brilliant, beautiful, but indescribable-in ite blending of metallic red and gold-added greatly to the effect. We noticed the following of the beot blooms among the Rowes. Rruest Metz, Madame Hoste. The Bride, Niphetos, Souvenir de Paul Nejron, Francisca Kruger, Anna Olivier, Innocente Pirola, Comtesse de Nadaillac, Edith Giffard, Souvenir d'un Ami, Maréchal Niel, Jean Ducher, Ethel Brownlow, Catherine Mermet, Alba rosea, Madame Cusin, By brid Perpetuals, Reynolds Hole, Mre. John Laing, Charles Lefebvre, Viscountess Folkestone, Madame Victor Verdier, Charles Darwin, John Stuart Mill, Horace Vernet. Ducherse de Morny, Marie Baumann, Dr. Powell. Duke of Fifé, Madame Charles Crapilet, Harrison Weir, Suzanne-Marie Rodocanachi, A. K. Williams, Alfred Colomb, Jean Soupert, Camille Bernardin, Heinrich Schultheiss, Duke of Welliapton, Her Majesty, Eclair, Madame Verdier, Marie Rady. Lady May Fitzwilliam, Xavier Olibo, La France, Star of Walthara, Ulrich Brunger, Jeannie Dickson, Duchese of Bedford, Du. hess of Edinburgh, Duke of Edinburgt, Marchionees of Londonderry, Duke of Teuk, Gustavo Piganneau, Exhibition de Brie. La Havre, \&c.
The Table Decorations, and Bridal and Ballroom Deoorations deseave to rank next to the Roses; there were three of the former 8 feet by 5 , having this peculiarity, that they were all furniohed and judged by ladies. Two of them, that of Miss Gilbert and that cf Miss C. G. Orpen, were harmonies of Sweet Peas of ulique lightness, chasteness, and beauty; and they were so nearly alike in merit, that they were rightly bracketed equal lst. The Teas were lightly veneered with Asparagus, Maidenhair Fern, and a delicate spray or two of white Jasmine, and Ficus repens. Mr. STEWARD, who was 3rd, showed what may be called a harmony of Shirley Poppies and Nasturtiums, on a jellow ceatre, also very lightly touched with graceful foliage.

Herocecous Perenniath - As usual, there was a grand muster \& cut herbaceons flowers for collections, most tastefully arranged on a table-space of 8 feet by 3 , and aloo for the beet twenty-lour, twelve, and dix herbecoous plants, these made a rich dioplay. The chief prized being taken by Mr. Jac'obi of Heniey Rood, the Earl of Dysart, Mr. Georie gilerert, Meam. WARYER and Notcutt, Req. W. Beqwerts, Rev, E. Firrex, captain Price, the Hoo. I. Lowther.

## Miscezlaneous Exifbits

A few good stand of Pelargoniums were also shown, but like the Fuch ias, all far below the standard of former jears, Groupe of plants arranged for effeot were very crejitably shown, three exbibitom ahowing in each of the two sections of 12 feet by 5 feet for smatnars, and 9 feet by 4 feet for ditto, omploying not mope than one gardezer.

## Vegetables.

The Ipewich Borticultural Society still holds a high place as vegetable show of the first rank, and the liberal apecial prizee offered by Mesams. Sutton \& Sans, Wills \& Sons, Daniels Brothern, Mr. W. Addison, and the apecial collections fon seedmaen, an well an the liberal prizes offered by the Gociety, brought a splendid muster of vegetables in moot of the clases. The green Peas were green indeed. Potatos, espesially the Duke of York and Sutton's Seedling, looked perfect:

Duke, however, neems to sport in many gradations, from
veritable Ashion! to the furtheat remove from those ceuliar marks and swelliggo on its surface that distinguigh all true Ashleal Potatos. All the Dukes present, however, were linked together throagh those peculiar unique spots that diotinguish that Ane Potato. Carrots and Cauliflowers were also fine. Broad Beans seem getting bigger, longer, broader. Turnipy were the ouly vegetables preest that seemed as if they might have folt the pinch of the drought. Cucumbers and Tommtos fine, also Lettuces Cow , and especially Cabbage Lettuces, the latter enpecially wonderfully goud; while Cabbages were conspicuous by their absance-no, there was one lot of three.

Eruit.
Fruit, erpecially Grnpee, Nectarines, Melons, Peaches, Cherries, black and white Strawberries, were fiae; and there were eight dishes of Baspberries, eeven of ripe Gooseberriep, nine of other sorts, seven of black Carrants, twelve of white Currante, thirteen of red Currants, nearly the whole reing of high quality. There was a fine lot of Strawberries in all shown, in collections and in single disbes, and for weight, Laxton's Lateat of All taling 1st and 2nd prizes for weight, the third was unnamed, lat. thirty frults, weighed $\% \mathrm{lb}$. 1\% 06. ; 2nd, thirty fruits, weighed 21b. 专 02.; 3nd, thiry fruite, weigtred 11 lb .7 on. A very fine dish of the etriking black Strawberry Waterloo whe shown, though by no means up to the Queen standard in flavour, this strawberry is better in quality than not a fow, and ite colour will afford a new variety in desserte that bave to be large and showy as well as good. Of black Grapes there were seven lote of good quality, and only three lots of white, not specially good. Then also there were collections of fruits of siz dishes each-Mr. Messenger, gr, to C. H. Berners. Eaq., of Woolverston Manor, taking the 1st prize with Black Hamburgh, Buckland Sweetwater, Bellagarde Peaches, Pineapple Nectarines, Beat of All Melors, Waterloo Strawberry, the Strawberries nicely managed in a series of sereral tints, pasily accessible and well arranged under the personal euperiatendence of the Rev. H. Berners; the able trekary, assisted by Messra. Mahon, Smith and Hooper.

## THE WOLVERHAMPI ON FLORAL FETE.

JuZy 9, 10, AND 11.-This wae one of the beat horticultaral exhibitions yet witneased at Wolverhampton. Favoured by beautiful weather, the show was greatly patronised on the first day. The prizes offered were sofficiently tempting to retch exhibitore from all parts of the tingdom, and the show of plante bat never been excelled at Wolverhampton. Some of the chief featares of the show were the Rones, which were remarkable for to dry a neason, more than 3000 bloome being rtaged, and the groupe arranged for effect.

## Cut Flowens.

Herbaceous Pl mits. - Of these there was a large display. A novel clas, and one which was much commended by the juiges and public, was that for the National Challenge Prizethe most taste? ally arrangerl Violas and Pansies ic glaeoes, with Viola or other suitable foliage as a setting. A Gold Medal and substantial money prizes were also offered by PavL. Lutz, Baqe, to encourage an improvement in the staging of these flowers, and altogether there were eight competivors. It whan clase that was the mont admired of any, and aerved to show the decorative value of Violas and Pansies in slifful hands. It was remsrked that the naual mode of setting ap them flowera as spraye was not adhered to.

## gtove and Greentouse Plants.

## For the beat suxtesn Flowering or fine Fotiage Plints, no

 frwer than cight to be bloom, Orchids exeluded: Int, Mr. J Cypher, Cheltenham, with a collection that containes wellbloomed Allamada grandiflora and A. Headermoni, fine ape clmeas of Anthurium Scherserianum, Bougainvillea glabre, Imora Williamsi, and L. regina, Erica Kingatoniana, Co diapum angustifolium, a very fine C. Mortefoatainense, Cycas circinalis, Letanis bortocica, and Kentia australio. J. MysRIoTT, Esq., Coventry, was 2nd (gro, Mr. Finch), with Statice profusa, well flowered; also Inoras. Bougainvillea glabra, and sone good Codimums.
the beit six Exotic Ferns, H. Lovatt, Req., Bushbury (gr., Mr. Sharp), was lst with a very fine Todea superba, Dicksonia antarctica, Gleichenia Mendeli, \&c. 2nd, J. A Kemprick, Esq., of Edgbaston.
For six Extic Orchids, 1st, Mr. J. CyPher with Cattleys Sanderiana, C. Mendeli, and Odontoglossum Alexandre 2nd, Mr. Charleswortig.

Fur Six Palms, Dissimilar.-1st, Mr. J. CxpHer, who etaged a good Latania borbonica, Kentia Forteriana, and Phoenix reclinata: 2nd, Mr. VAUSE, Leamington, with Areca lutescens, Kentia australis, and Phooniz dactylifera.

Group of Plants.-1st, Mr. J. CYPEER, with a group con sisting of Humea elegans, Palms, Orchids interspersed with well-coloured Codiæums and Ferns; 2nd, J. Marriott, Feq of Coventry, with a group containing plants of Gypsophila, Orchids, Carnations, Ferns, Palms, Codiæums, all very nicely arranged; 3xd, Messrs. TOM B. DoBBS \& Co. of Wolverhampton, whose group was effectively arranged with Lilies. B
vardias, Orchids, and Palms, the plants clean, well grown.

## THe Ophis Classes.

Roses.-For seventy-two distinct varieties.-1st, Mr. B. R. Cant, Colchester, who scaged superb blooms of Her Majesty, Alfned Colomb, Innocente Pirola, Marchioness of Londonderry, and Maurice Bernarjin: 2nd, Messrs. Harkivess \& Sow Bedale, with excellent specimens of Horace Vernet, Marice Bernardin, Merveille de Lyon, Marie Rady, Sir Rowland Hill, very fine; Charles Lefebvre, Lady Londonderry, and The Bride For jo ty-eight distinct varieties.-1st, Mesars. Harkiess \& Sons, with good Etienne Levet, Merrie England, Dupuy Jamain, Horace Vernet, Comtesse de Serenye, and Pride of Waltham; 2nd, Mesirs. Perkins \& Sons, Coventry.
For twelve blooms of one dark variety.-1st, Messrs. Toww GEND\& SONS, who staged very fine A. K. Williams; 2nd, Mears Perkina \& Sons, with the same variety.
Tuelve blooms, one light variety.-1st, Mearrs. Perkins \& Townsend \& Sons, with Mrs. J. Laing.

Amateurs" and Gentlemen's Gardeners' Classes.
Fur thirty-six distinct varieties.-1st, the Rev. J. H. PEM berton, of Haveriag. Essex. 2nd, Mr. W. Drew, Ledbury. Fur twenty four diotinct varieties.-1st, Mr. W. Drew 2ad, Bev. J. H. Pemberton.

## For twelve Tea Roses.-1st, Mr. W. Drew.

## Miscelraneous.

The bouquets were much admired, Messre. Perikins \& Sont thking three lst prizes; while Mesars. Pope \& Son of Birming ham, and Mr. G. H. Kendrick, Edgbaston, were 2ad.
In Hardy Cut Flowers.-1st, Mr. John Mecklein, Bridge of Weir, with a fine collection; 2nd, Mr. J. Salmon, Trysall, Wolverhampton; 3rd, P. STANHOPE, E.q, Wombourne This class brought sixteen competitors.
For the National Chatlenge Prize.-The Gold Medal, Mesars. Dobbie \& Co., Rothesay, N.B, for an arrangement of Violas and Pansies; 2nd, Mr. G. SMELLIE, Bushby, N.B.; 3rd, Mr. M. Campbell, Blantyre, $\mathbb{N}$ B. This class brought out eight competitors.

## Fruit.

The show of fruit was excellent, especially the Grapes. Mr. Bannerman, gr. to Lord Bagot, of Blithfield, was lst for four bunches of Grapes, distinct varieties. Other noted ex hubitors in the Grape clagses were Mr. Goodacre, gr. to the Earl of Earbingtox, Elvaston Castle; Mr. Read, gr. to the Earl of Carnarvon, Bretby Hall; Mr. Gilman, gr. to the Earl of BHREWSBury, Ingestre.
For the Zest cellection of ntne dishes (f Frui', Mr. Gleeson. gr, to C. E, Keyser, Exq., Stanmore, was list, with a very tine Pine, Muscat of Alezundria and Black Hamburgh Grapes, Hero of Lockinge Melon, Lord Napier Nectarine, Dr. Hoges and Early Groase Mignonne Peaches, and Browa Turkey Figs, Mr. Bannerman, gr. to Lord Bıgor, was 2nd with very good Black Bamburgh and Duke of Bucclench Grapee, Violette Hative and Royal George Peachee, Dowaton and Violet Hative Nectarines, Golden Perfection Melon, and Brown Turkey Figs.

For six Peaches. - 1st, Sir G. Merrict, Bart. (fr., Mr Gray), with Crimson Galande; 2nd, R, Sneyd, Esq. ( $\boldsymbol{K r}_{\mathrm{v}}$, Mr Wallis), with Abec: 3rd, Sir C. F. Broverron, Bart., with Hale's Early.

For six Nectatines.-1st, Hon. P. Staniope, Wombourne, With River's Rarly Orange; 2nid, B. SNeYD, Ekq., with Lord Napier; 3id, C. E. Keyser, Eeq.

## Vegrtabled.

There wat a very good display, it being much better than might have been expected this dry season. In the large collection, let, Earl of Carnarvon ; 2nd, the Rev. W. D Thatceen, Stourbridge.
The son-competitive exbibitors were Mr. W. D. Bason, of Finchfield, Wolverhampton, who received Bronze Medal and Certifica*e of Merit for Mubhroom Spawn and dieplay of planto Mesars. THompsow, Sparkhill, Birmingham; Messrs. HeweTm \& Mon, Solihull, Birmingham; Mecorm. Dicisons. Chester, who sent Roses, and receired an award of a Silver Medal and a Certificate of Merit; Mesars. Eckfond \& Sow, Wem, who staged fifty varieties of Sweet Peas; Menors. Janman", Chard; Messrs. Birkentrad a Son; Mesorv. Joned \& Sow Shrewabury ; Mr. R. Lowe, of Wolverhampton a Son Kinget, Wolverhampton; and Mr. J. H. Wrient, Worcester.

## TUNBRIDGE WELLS <br> HORTICUL TURAL

Jons 10. - The thirty-seventh annual exhibition was held on the above date, and in rempect to quality and quantity was well up to the average. Groups are alwaye a strong feature, and on this occasion competition wan very close. Eventually, Mr. J. Howes, gr. to W. Cobs, Esq., Taubridge Wells, wa placed before Mr. L. Dapond, gr. to C. B. Powril, Esq.; Mr. S. Pope, gr. to J. J. Barrow, Esq., following. There was little to choose between thene groups, all three being enpecially neat and pretty in arrangement
For four stove and greenhouse plants, Mr. T. Portnell, RR. O Sir A. Lamb, Battle, was 1st, Statice profusa, Clerodendrom Balfourians, Dipladenis amabilis, and D. boliviensis being very well flowered. Mr. S. Pope, gr. to J. J. Barrow, Freq., on for
four ornarenental-foliaged plants; and was also lit for four four ornamen
exotic Ferne.
In a clase for nine Orchide, Mr. J. Howes was a good 1st, his pieces of Epidendrum vitellinum majus and Oncidiam macranthum being excellent.
Begonias were excellent, Mr. W. H. Wichews being lst for singles, and Mr. T. Furze for doubles. Mr. W. H. Wickers also won the Silver Medal for tuberous Begonias, with a grand lot.
As usual, both zonal Pelargoniums and Fuchaias were good, while the Gloxinias were difficult to beat. Mr. WICKEMS, Mr. Wakeford, and Mr. Furze took lst honours in the order given, for these three species of plants.
Cut Flowers.-For blooms of herbaceous plants, Mr. J. Chartyon, Tunbridge Wells, was well in front, and put upa grand lot. Mr. Dupont, gr. to C. B. Powell, Esq., Southborough, was 2nd. Mr. T. Portnell was lst for eighteen varieties of stove and greenhouse flowers. Table decorations if not very numerous, were of the usual high quality, Mrs Hatton, Sevenoaks, being list for three stands; and Mr. s. EDW IRDS, Sevenoaks, Ist for one stand, the latter decorated entirely with Roses. In both classes, Mr. A. Hatton, gr. to Mrs. Swanzy, Sevenoaks, was a close 2nd. Mr. J. Chariton woo for a wreath, hand-bouquet, and also a wedding-bouquet, all being good.
Roses.-Mr. G. Mount, Canterbury, was well in front for forty-ejght varieties, and had some good examples. The best were Duke of Teck, Duke of Wellington, A. K. Williams Charles Lefebvre, Marie Baumann, Xavier Olibo, and Dupay Jamain. The last bloom secured the National Rose Society's Bronze Medal for the best Rose in open classes, and was a magnificent flower. A similar Medal in the amateur clasges was awarded to Mr. Elmes for Mrs. Joha Laing. Mr. J. DenNETT, Maresfield, won for twelve Teas or Noisettes. Mr Harris, gr. to E. M Bethune, Esq., Denne Park, Horsham, staged a good stand of twenty-four single blooms, Niphetos, Alfred Colomb, A. K. Williams, and Fisher Holmes, being particularly good; Mr. C. salter, gr. to T. B. HAYwood, Esq., Reigate, was a close 2nd here, and first for sir varietien, three of each; while Mr. Harris was again well in front for twelve Teas in the amateur division with a perfect stand.
Fruit.-This was excellent in quality. Mr. J. Friend, gro to the Hon. P. C. GLyN, Godstone, beat Mr. PaLMER for Black Hamburgh; Mr. EARL was in front of Mr. J. Snow for Black Grapes other than Hamburgh; while Mr. Snow was well in front for White Grapes. Mr. T. C. Moorhouse, gr. to J. W. TEMPLE, Esq., Groombridge, took 1st, both for Panchee and Nectarines; Mr. Earl doing the same for Pine-apples and Cherries, and Mr. Friend for Melons and Strawbarries.
The collections of truit (nine varieties) were good, and resulted in Mr. Fennell, gr. to W. M. Cazalet, Eqq.. Tonbridge, being awarded an equal lot with Mr. EARL, Mr. J. Snow following.
Vegetables.-Mf. J. Friend was 1st for nine kinds, and also for sir kinds, to be grown by single-handed gardeners only. The ist prize in Mesars. Suttor a Sov's class went to Mr. G. Denton, gr. to A. G. Earle, Eaq , Tonbridge ; and that by Mr. J. Cearleon to Mr. C. F. Dunk, gr. to H. Taylo Eeq., Rusthall.
The chief winners in the local classes were Mr. J. Syow for sir stove and greenhouse plants in bloom, also for foor ditto for ornamental foliaged plants and for exotic Ferns.
Miscellconeous,- Oottagers productions were particulady good, empecially the vegetables. A fow good cat Rooes ass: from Mr. G. W. Piphes, of the Uckfield Nursery; and aloo pretty group of Begonias and Ferns from Mr. S. S. CULins Juhn's Narseries. Other exbibits, not for competition, wern implements.

## EDDINBURGE BOTANICAL.

Jour 11. -This society held it last meeting of the sesaion on the abrve date, in the Lecture Hill of the $R$ yal Botanic Garden, Mr. Sjmington Grieve taking the chair.
There was a rather thin attendance of members, this beiph due to the heavy rainfall during the afternoon. After the reading of the crupcil procsedings, and election of arw members, Mr. Andrew Tajlor read obituary notices of Dis H. C. F. Cleghorn and Dr. T. A. G. Ballour, both of whom were distinguibbed members of this society, and contributore to the Transactions of the soclety. Mr. R. Lindsay, Cursoms is his report on Vegetation in the Royal Botanic Garres. atated that a much lerger number of plants had flowered upon the rock garden than for everal years in the corresponding
month. The foliage of trees were tolerably free from insect pests, notwithstanding the drought during the month. The following items are taken from the report of moteorological observations for June, in the garden. The highest reading of the barometer was on the 24 th $=30^{\circ} .397$; lowest, $29^{\circ} .445$; mean for month, $29^{\circ} 965$. Protected self-registering thermometers: higheat reading. $77^{\circ} \cdot 7$, on the 26 th ; lowest, $37^{\circ} \cdot 1$, on the 13th; mean for month, $56^{\circ} 3$; or $0^{\circ .7}$ above averace for June of last four years. Hygrometer: mean of dry bulb, $57^{\circ} .8$; mean of wet bulb, $52^{\circ} \cdot 5$. Radiation thermometer: highest, in mean of wet bulb, $52^{\circ} 5$. Radiation thermometer: highest, in
suv, $131^{\circ} 0$, on the 10 th: lowest, on grass, $28^{\circ} \cdot 8$, on the 15 th. suv, $131^{\circ} 0$, on the 10 th : lowest, on grass, $28^{\circ} \cdot 8$, on the 15 th.
Frost occurred on grass on six days. Total sunshine, 187 bours Frost occurred on grass on six days. Total sunshine, 187 hours
23 minutes; the sunniest day was on the 6th, when 13 hours 23 minutes; the sunniest day was on the 6th, when 13 hours total fall being 20560 inch, this being 0.611 inch above the average for June of last four years. Mr. R. L. Harrow read the asaal notes on Plants in the Plant Houses, and exhibited Combretum purpareum, Crinum augustum, Cypripedium Parishii, Lambertia formose, Tusnaccia pulchells, and others from the houses. At the close of the meeting, the chairman announced the next meeting to take place in November.

BATE ROSE AND BEGONIA SHOW.
Julv 11.-The Bath Rowe ahow, as unual, was held in the Sydney Gardens on the above-named date. The competition in some of the open clanses was not quite $n 0$ good as it generally is at Bath, the long apell of dry weather being reaponaible for this circumatance; the blooms, however, were of a high order, and the thow was a succens.

## ROSES.

## Nursertmen.

In the class for seventy-two distinct varieties, three very good Jots of blooms were staged by Mesars. HARKNESS \& Sons. Bedale, Yorkshire; Mesprs. Perkins \& Sons, Coventry ; and Messrs. George Cooling \& Sons, Bath, who took the prizes in the above order. The contest for lst place between the Yorkshire and Warwickshire firms was very close. best blioms in the premier stand were Captain Haward. He Majesty, Duke of Teck Trancisa Kruger, Gustave Pigard, He Mrs. John Laing, Prince Arthur, Alfred Colomb, A. K. Williams, Comte Raimbaud, Auguste Rigotard, Victor Hugo, Earl of Dufferin, Marie Rady, Charles Darwiu, Exposition de Brie, and La France. The blooms in the 2nd prize stand were slightly smaller, but they were even, fresh, and of fine sub stance, as also were the blooms in Mesars. Coolings' stand
Thirty-six varieties, three trusses of each.-1st, Messrs Coolme \& Sons, with good all-round blooms of Comtesse de Nadaillac, Pride of Waltham, Etienne Levet, Alfred Colomb, Xavier Olibo, Mrs. John Laing, La France, Abel Carridre, Caroline Wood, Gustave Piganneau, Duke of Wellington, blooms of richer, Horace Vernet, Harrison Weir, large eolid blooms of rich velvety crimson, \&c.; Messrs. PERims taking and honours with a good stand.
Eighteen distinct varieties, three trusses of each.-Mr. Grorar Mount, Canterbury, was a good list among four competitor with a granà lot of blooms; Mr. JoHN Matiock, Oxford, as 2nd.
Thirty-six distinct varieties, single trusses.-Here Mr. Mount was to the front again with a fine lot of blooms, including grand specimens of A. K. Williams, Mrs. John Laing, Duke of Edinburgh, Madame Eugene Verdier, Xavier Olibo, Ulrich Brunner, John Mills, and Alfred Colomb; Messrs. Cuntis, AINDFORD \& Co. were 2nd.
Eighteen Teas or Noisettes, distinct varieties, single trusses. First. Mr. Mattock, with a stand of even, freeh, solid blooms Ernest Metz, Souvenir de S. A. Prince, Caroline Kuster Catherine Mermet, Madame Cusin The Bride Conese Nadaillac, Innocente Pirola. Marie Van Houtte, Maréchal Niel, Suvenir d'Elise Vardon, Ethel Brownlow, and Souvenir de Thérèse Levet; Mesurli. Curtis, Sandford \& Co. were 2nd.

## Amateurs.

In the clases for thirty-six and eighteen varieties in single trusses, the Rev. J. H. Pembertor, Havering, Essex, secured premier position, Duke of Teck, Her Majesty, Charlea Lafebvre, A. K, Williams, John Stuart Mill, Dupay Jamain, Catherine Mermet, Dule of Wellington, and Comte Raim baud, being the most prominent blooms in hia stand; Dr. BUDD Bath, was a good Ind in each class.
Twenty-four varieties, ringle trusses.-1at, Mr. THomas Hobbs, Bristol; 2nd, Mr. Parker, Old Feadington, both staging good blooms.
Twelve varieties, one bloom of eack, -Mr. HonBs was again 1st, and Mr. ConWay Jowry, Gloucester, was 2nd.
Local Classes. - In the two classes reserved for Roses grown within aix miles of the Guildhall, Bath, Mr. A. Hill Grax. Was lat in both, securing the Gold Medal for twelve varieties, one bloom of each, and premier place for a like number of varieties in trebles. Mesars. F. G. Garaway, Hobss, and Ball (Bath), were the other prize winners in the aborementioned clasees. Mr. Hinl Gay alco secured the premier award in two out of the three clases for Teas and Noisettes; Mr. James Parker taling and place in the other clas.

## Ofer Clusses.

Twelve singig trusses of any Rose.-lat, Moserv. Hisirntes a Sons, with good examples of Guitave Piganneau; Iud, Meeers. Cuntis, 8andFond \& Co., with mood olocms of Marte Bau-
mann. fis atands were seaged in this clacs.
Troulve blooms of any Yel ovo Rose.-let, Mr. Jons Mutrook,
with faultlese blooms of Comtesee de Nadaillac; Mr. Hild Gray being 2nd with Maréchal Niel.
Twelve single trusses of any crimson Rose.-1st, Messrs, Perikins \& Sons, with mrand blooms of A. K. Williams ; Mr Mount taking 2nd place with good solid flowers of Fieher Holmes.

Tw lve distinct gardon decorative Roses to be shown in bunches.-Here Messrs. Georgr Cooling \& Sons were easily let with grand exhibits of Ophirie, Madame Falcot, Jaune Desprey, Celine Forestier, Marquis of Salisbury, Beauté Inconstante, W. A. Richardson, Bardon Job, Homer, Triomphe des Rennes, and L'Tdéale: Mr. Mattock was 2nd.
Premier blooms. - Mr. Hill Gray had the best Tea or Noisetta (Comtesse de Nadaillac) Rose in the show; and Mesers. Harknrss \& Sons had the best hybrid perpetual in Gustave Piganneau
Messrs. Keynes Williams \& Co, Salisbary, had a stand of hybrid Sweet Briars, which were greatly admired; Jeannie Deans, Breada, and Lucy Bertram being the most conspicuous.

## Groups.

For a group of miscellaneous plants, on a space not exceed ing 250 square feet, Mr. JAMES CYPHER was 1st, with an artistic arrangement, consisting of a series of mounds having central plants of Palms, Bamboos, Tuberoses, Dracæna Goldjeana and Lindeni, Crotons, and Humea elegans in fine flower, backed up by grandly-flowered Orchids; also Caladiums, Maidenhair Fern, Crotons, \&c. Mr. B. R. Cater (Chairman of the Bath Floral Fâte and Band Committee, and a keen horticulturist) was a capital 2nd, being very strong in Orchids ; and Eldorado cork was introduced into this arrange ment with good effect, representing the front eleration of castle.

## BEGONIAB.

Four classes were set apart for plants of the tuberous-rooted Begonias, and the plants put up in competition for these prizes made a good show, and were, on the whole, highly creditable to the growers. The plants were confined to pots not exceeding 10 inches in diameter.
Mr. Richard Curry, Bath, was lat for six distinct varieties, with well-grown plants, the foliage being good, and the flowers large and fresh; Mr. T. W. DUNr, Bath, was 2nd.
For six plants, double, Mr. J. B. BLACKMOOR was 1st, with large, grandly-flowered plants of Lady Gertrude, Duchess of Fife, Rev. E. Lascelies, Princess May (a fine white), Mrs. French, and Exquisite; 2nd, Mr. D. L. Carr.
Mr. DUNN had the best specimen, single-flowered ; and Mr Blackmore the best plant of a double variety.
Mr. B. R. Davis, Yeovil, had a magnificent display of cut blooms of great size, and various and pleasing shades of colour.

## STRAWBERRIES,

In the three clastes provided for Strawborries, Mr. F. Bicketse, Batheaston, took lst prize in each class, showing nice fruits of Sir Joeeph Paxton in each case.

## Vegetables

Two good collections of vegetables were staged by Mr. George Garaway and Mr. Wimilam Evby, who secured the prizes in the above order.
A portion of the side staging on entering the large marquee had been devoted to the sale of spare flowers in aid of the Gardeners' Royal Benevolent Institution, $£ 13$ being realised in this way last year. This prictice is worthy of adoption by the committees of other shows held in various parts of the country.

## THE NATIONAL ROSE SHOW AT DERBY.

Joly 17.-We share the opinion of both secretaries, that this ahow was the best of the neason, so far as quality is concerned, while it certainly fell very little short in numbers. Not many expected to find so grand a collection of Roser after the prolonged drought, but there they were, and from almont all parta, but Scotland, Ireland, and the north and north - east of England sent the best flowers. The Hybrid Perpetual were very good, clean, and bright, except in a few casen; but the Teas were ncarcely mo pood an at the Cryatal Palace or Gloucester. Their uniform good quality was remarkable, more enpecially in the Hybrid Perpetual classes.

## Nurseatymen.

Is the Jubilee Trophy class for thirty-six singles, to which a Gold Medal is also awarded, there were eleven competitors. Messrs. R. Harkwess \& Sons, Bedale, Yorks, won with a good stand, consisting of Charles Lefebrre, Madame Faglae Verdier, Horace Vernet, §.-M. Rodocanachi, Dr. Andry, Duchesee de Morny, Dupuy Jamain, Queen of Queens, Comte Raimbaud, Her Majesty. Duke of Edinburgh, Gustave Piganneau, Lady Mary Fitzwilliam, Fisher Holmes, A. K. Williams (medal bloom), se. There was scarcely a faulty bloom in the colleotion. Mr. B. B. Cant, Colchester, with a good lot, was 2nd, his beat bloomy being Lady H. Stewart, A. K, Williame, Victor Eugo. Horace Vernet, and Duke of Wellington. Victor Eugo, Horace Vernet, and Duke of Wellington.
Mesers. A. Dickson \& Sons, Newtownards, Ireland, had two promising seedlings in their 3rd prize atand.

For seventy two distinct, single trusses.-Mesors, Hulwness \& Sons, B. R. Oant, and Measrs. Diorson \& Bow occupiod the same positions as in the former clas. The beat flowers in the winning Etand were Etiense Levet, Marie Eumaan, Horsce Vernet, Duke of Connaught, Prine Arthur, A. K. Willians, and Victor Hugo.

For thirty-six varieties, three blooms of ach, there was very keen competition, but eventually Mesars. Hakrweas, B. R. CANT, and Mesars. Dicsson once more followed each other as named. A eet of their new H.P. Merrie Eagland, was peculiarly striking in the winning stand.
Thirty-six sing'es, distinct. - There were nine collections, and the prizes were taken by Mesars. Cocker \& Sons, Aberdeen: Mesars. D. PRIOR \& Son, Oolchester, and Mesars. Very shortls after Worcester, in the order of their names. ere For of kesers Cocker's stand.
For eighteen virieties, three blooms of each, Mesars. D. Paion \& Son, Colchester, were well ahead, Mesars. To WMNEMD and Mr. G. Mount following.

## Silyer Medal Roses.

Nurserymen. - Messrs. Halkmess 80w. with A. K. Williams (H.P.): Meart, W. \& D. CmoLi, with Marie van Houtte (Tea).

Amateurs

The Jubilee Trophy and Gold Medal was won by Mr. E. B. LINDSELL, Hitchin, who also secured the Silver Medals for both the beet H. P. and Tee Rose shown by amatears. This was a grand stand, the Medal blooms being Xavier Olibo and Comtesse de Nadsillac; Madame Hoste was the only weak flower. H. V. Macein, Req., Gateford Hill, Work*op, had Horace Vernet and Her Majesty particnlarly good in his 2nd prize stand.
A£10 Cup, presented by the Bight Hon. Sir W. V. HarCOURT, was easily secured by Mr. E. B. LindsELI, with good collection of thirty-sir blooms; MP. W. Drew, Ledbury, was 2ad. Mr. E. B. Lindsell was also lot for eight distinct varieties, three blooms of each; Mr. H. V. Macein dividing him from the Rev, J. H. Pemberton in this class.
The Crown Derby Vase, for growers of fewer than $20 c 0$ plants, was secured by Mr. J. PAREER, Oldfield, Hitchín; E. MAWLEY, Esq., Berkhamsted, 2nd; and R. E. WEST, Esq., Reigate, following.
For growers of fewer than 1000 plants, Mr. WHITTLE, 56, Belgrave Terrace, Leicester, was in front.
4 piecs of Plategiven by the Mayor of Derby was won by Mr. A. Weriton, Bedale. Yorks, for twenty-lour distinct singles.

Nine single b:00ms, T. TıTHAM, Esq., Wilmslow, was a good lst among seven competitors; Mr. J. T. MARSDEN, Silverdale, Carnforth, winning for sim Teas. Theee three last classes were for growers north of the Trent only.
For nine blooms of any one variety, except Teas or Noisettes, Mr. Maceir was succesalul with Prince Arthur; Mr. Drew, with Mrs. J. Laing ; and Rev. J. H. Pemberton, with A. K. Williams.
The ciass for six mew Roses was poor; Mr. Macmrs and the Rev. J. H. Pemberton being respectively lot and Ind.

## Teas and Noisettes.

Eight competed in an open clase for Lwelve trebles, Mesurn. D. Prior \& Son, Colchester; Mr. J. Matrock, Oxford; and Mears, Cocker 8ons, Aberdeen, winning in the order as named.

## Nubserymen.

Mesurs. Phion \& Sox were 1st for eightsen distinct, singles; Messrs. A. Diokson \& Son, Newtownarde, Ireland, 2nd; and Mesars. J. Cocker \& SONs, Aberdeen, 3rd. This was a strong lass, and the winners came from a wide area. In thin anss Was the silver Modal Ton, Van Houtte, from Messor. W. W. D.
For tweloe Teas, Mr. J. Marrock, Oxlord, was Iat: Mesart. J. Burnell \& Co., Cambridge, being 2ad.

## AMLTEURS.

Twalve biooms, distiwet, open to all amateurs.-Mr. O. Q. ORPEv, Olcheatar, was well in front of A. Huh Grir, Eeq. Deth.

Nine blooms of any Tea or Noisette,-Mr. Mschin, Workwop won in this clase, atagiog some good blooms of Edith Gifford.
Nine single blooms by growers of fower thas 500 plantis. - Mr. W. Drew, Uplands, Ledbury, was list; A. H. Grax, Eeq., Bath, beiog let for an extra class of siz varieties, three of each. Bath, ${ }^{\text {mer }}$ R Burrgide, Sutton-on-the-Hill, was 18t, with Marie Van Houtte for six bloome of eny Tea.

## Opeir Classez

Twelre new and distinct Roses.-Mesars. A. Dickson \& Sons, Newtownards, Lreland, won with a good lot, but a little Nowter chan at the Crystal Palece; Mr. B. R. Cant, Colcheoter,
and 3rd.
A Gold Medal was this time a warded to Menation Dre giren \& Soxs, for H.P. Helen Keller, and Commendation was given for Lady Moyra Beauclerc. Mesers. TownsHewd \& SON, W Or cester, won with The Bride, for twelve blooms of any white
Boee. Meesry. A. Drcrson \& Sown, with Her Majeaty for twelve bloome of any light Rone (a grand box); and Memars. Harknkse \& Sons, with A. K. Williams, for twelve blooms of any crimson Rose.

Garden Roses.
These were very good, and superior to those shown either at the Crystal Palace or Gloucester. In the amateurs' clave for twelve bunchee, Mr. H. V. Machix was 1st
Messrs. Pauz at SOX, Chenhuat, teiged agrand lot in the open clase for 1st honours; being followed by Mesars. W. \& D Croll, and Mesars. J. COCRER \& Bos.
In the dieplay of Rose, Mr. H. V. Macmir beat Mr. J. Mattook.

## Gbituard.

John Wille.-On Satarday, the 13th inat., on a perfect summer day, with the brilliant annshine playing about the grave in Brompton cemetery, and amid a large circle of friende from all parts of the conntry, John Wills, whose death was annonnced in our last iasue, wat laid to reat. Many who would otherwise have been present were kept away by basinens engagemente pecaliar to the day; but it was a representative gathering which atood around his last resting-place. He had diaplayed undoubted genius, and marked originality in his particular line; he had conceived and carried into effect achievementa which amounted almost to audacity, but alwaye execated with remarkable taate, akill, and conscientious attention to details, No man in his day has done no much to elaborate and elevate the art of the floral decorator, and the immense impetue given to the development of that art in later years is largely due to the happy inspirations of him who sleeps his last sleep in Brompton Cemetery, near others of his brethren who in their day had made hortieultare famoan.

Jobn Wills was born in 1832, at Chard, Somernet, where his early life was apent. He received his education in the village school, having as a achoolmate Mr. Saperintendent E. Denning, wo long the Chief of the Police at Buckingham Palace and the Houses of Parliament, and who was present at his funeral. Oa leaving school, he was taken into the gardena of Cricket St. Thomae, the aeat of Viscount Bridport, near Chard; and from thence he went to London about 1850, as gardener near the Swiss Cottage, St. John's Wood, to a Mr. Woodcock, who was father to the vicar of Chard. Later on he was employed ander Sir J. Paxton in laying-out the grounds of the Cryatal Palace at Sydenham; and from thence he went to the Pine-apple Narseries of Mesirs. A. Henderson \& Co ., Maida Vale, and on leaving there to the gardens of the Royal Horticaltaral Society at South Kensington, under Mr. George Efles. He next became engaged as gardener to Sir Philip Grey de Egerton, Bart., at Oalton Park, Tarporley, where hit enterpriaing spirit found congenial work. It is to him we owe to some extent the popularity of the Viola as a bedding plant in the preaent day, by his bringing V. cornata to the fore and getting it a place in almost every flower garden. This led to others, expecially in Scotland, tarning their attention to the Viola, V. Inten and other apecies being employed for the parpone of obtaining new races for garden decoration. Willa also paid mach attention to the Verbena, and raised nome donble verieties now probably lost. He also originated some very fine and distinct bicolor Pelargoniums, including Beaaty of Calderdale, Beanty of Ribbleadale, Beanty of Oulton, Her Mrjenty, Golden Queen, Gaiety, \&cc., and of tricolore, Florence, Lizzie, and Unique, which were sent out by Mr. William Ball ; the former of theere, Beanty of Calderdale, is atill grown for bedding parposes. In 1865, he was gardener to Capt. Le G. N. Starkie at Huntroyde Park, Barnieg, where bo atill continued his experimente is raising new varieties of bronze zonals and other bedding Pelargoniama; and from whence originated the new ard distinct Ivr-leaved varieties Willaii and Wilhii rosea. To the Botanical Congress held in connection with the Great International Exbibition of London in 1866, he contributed a paper on the aporting of "Pelargoniume and other Plante," which is publithed in the Report of Proceedings; and later he contribated to the gardening press papara on the origin of variegated Pelargoniams and sallied subjects. Coming to London at the end of the sixties, he eventaally eatablished himself in businens at Sassex Place, Brompton, removige a fow years aftermard to Onslow Crencent, where he bailt up a large businees, having establishmente at Anerley, Fulham, and elsewhere; and taking a foremont place as a floral decorator. Early in 1880, fiading his large basinens beyond his coatrol, he formed it into Limited Liability $\mathrm{C}_{0}$, with commodions preminee in Regent Street; but it did not prove so succenful as he had hoped, and the bueinese again
found the centre at Onalow Crescent, one of his manager, Mr. S. M. Segar, becoming a partner, and here he died.
When the Royal Aquarium, at Westminster, was first ontablished some jears ago, Mr. Wills planted the summer and winter gardena, and had the maintenance of them for a time; and he also carried out a meries of horticultural exhibitions in the bailding, at one of which, held in May, the sum of $£ 100$ was offered in three prizes for twenty-five Orchids. He alao carried out a large exhibition at Sandown Park, which attracted a very fashionable company. Hir groups of plants at the leading London exhibitiona were always remarkable for the taste and akill which characterised his work.
About 1878 he was superintending extensive alterations at Laeken Palace for the King of the Belgians; and during his career he undertook extenaive floral decorations at Backingham Palace, Marlborough Honse (where he had charge of the gardent), at the Foreign and other Government offices on the occaaion of receptions, at banquets, at the Mansion House and other city halla, at many aristocratic mansions, \&c. One of his greatest undertakings was the decoration of the Midlend Railway Station, and the Queen's Hotel, at Sheffield, on the occasion of the visit of their R.H. the Prince and Princess of Wales, who were present at the opening of one of the pablic parks, when he electrified the Sheffeld folk with the boldness and originality of his work. His proposal to cover the Albert Memorial in Konsington Garden with a gigantic glans erection, and make it illustrative of the flora of the four quartera of the globe, will be remembered; ea also his energetic efforts for a number of years to originate another International Horticaltaral Exhibition in London.
Many gardening Iastitations and Societies found in him a generous supporter. At the time of his death he was a member of the committee of the Royal Gardenera' Orphan Fund, and as long as he was able to do so, he made a point of attending the meetings of that body. He leaven a widow, who will continue to carry on the basiness in Onslow Crescent, in conjanction with Mr. S. M. Segar. R. D.

Mr. J. Stratford.-We regret to announce the death of Mr. J. Stratford on Jane 29, aged sixty-one years. He was head gardener at Wormley Bary, Broxboarne, Hertfordshire, for thirtyfive yeara, ander the late Mrs. Grant and H. G. Bushby, Eeq ; having come from The Knole, Glamorganshire, with Mrs. Grant in the year 1860. The faneral took place at Wormley Charch, on July 3, a large number of his old friend attending; and he leaves a widow, three daughters and one son, to mourn his loas. Mr. D. R. Stratford, son of the deceased, takes his father's place as head gardener, he having been foreman under him for the past five yearn.

## Market 8 .

COVENT GARDEN, July 18.
(We cannot accopt any reepponibility for the aubjoined reports. They are farnished to us regularly overy Thursday, by the hiadneas of several of the principal for the quotations. It must be remembared that thense quotations do not represent the prices on ans particular quotations do not represent the prices on any particular the date of our report. The prices depend upon the auality of the samples. the supply in the market, and the demand; and they may fluctuate, not only from day to day. but often meveral times in one day. Enly
Out Flowers.-Averaer Wholbsace Prione.


Plasta for Pots,-Averagir Wholesale Phices.
 foreign supplies, prices are lower. J. B. Thomas.

## SEEDS

London: Ju'y 17.-Mezars. John Shaw \& Sons, Seed Merchants, of Great Maze Pond, Borough, London, S.E., Merchanta, of Great Maze Pond, Borough, London,
write that owing to the Parliamentary elections, and more particularly to the practically unbrolzen drought, to-day's seed marlet was bare alike of buyers and of business. Now Trifolium, both English and French, being in early and abundant supply, and well in advance of consumptive want, naturally comes to hand very cheap. There is no change in either Mustard or Rape-seed. Canary exhibits marked signs of increasing strength, the bear sales which caused the receat depression are apparently still uncovered. Peas and Haricots leep steady.

## FRUITS AND VEGETABLES.

Borover: July 16.-quotations:-Carrots, 2s, to 2s. od per bag; Peas, 2s. 6d. to 3s. 6d. per bushel; Horseradish, 1s. to 18. 3d. per bundle: Apples, Tasmanian, 6s. to 88. per case ; Cherries, 1 s . 6 d . to 2 s 。; Currants, 1 s .9 d . to 43 . per half sieve.
Spitalifields: July 16.-Quotations:-Cabbages, 5s. to 7\%. per tally; Carrots, $2 s$ o to $2 s$ odd. per dozen bunches; Turnips, do. ; Peas, 2s. $8 d$. to $3 s$ s. per bushel, and 5s. to 6s. per byg; Broad Beane, 2s. 6d. to 3s. per bag; Scarlet Runners, 3s. to 3s. 6d. per half-bushel; French Beans, do.
Stratyond: July 16.-The supply at this market daring the past week has been excellent, and, with plenty of buyers, a brisk trade was done at the following quotations:-Cabbagen 2s. 6 d . to 5 s . per tally; Peas, 5 s . to 6 s. per bag; Beapl, 2s. $9 d$. to $3 s$. per bag; Black Currants, 3s. 6d. to 48. per dis sieve; red do.e 3 s . to 3 z .8 bd . do, ; Chesies, 48 . to $4 \mathrm{~s} .6 \mathrm{~d}_{\mathrm{o}} \mathrm{do}$. do., eativg, 4s. to 5s. तo.; Apples, 2s. 6d. to 2s. 9 d . do. ; do, 58. to 5s. 6 d . per sieve; Oranges, 4s. to 5s. per 100 ; Tomatoe, 88. to 10 s . per case ; Beanf, Scarlet, 7s. 6d. to 8s. per busbel; Cucumbars, 28 s. to 2 s . 6 d . per dozen; Turnips, 28 . to $28,6 \mathrm{~d}$. per dozen bunches: Carrots, hourehold, 1 s , to 2 s . per dozen Mangels, $12 s$. to 20s, per ton; Onione, Egyptian, 5s. 6d, to of per cwt.
Farringdon: Jw'y 18, - Quotations:-Raspberries, 3d. to 4d. per 1 b . ; Gooseberries, 2 zs . "d. to $3 s$. per half-sieve; blact Currants, 5s. 6d. per half-bu!bel; red do, bs. per bushel ; Green Gagea, 5s. Bd. per basket ( 12 lb ) ; 'Cherries, 6 s . pes half-bushel ; do., white, 5s. Bd. do. : Melons, 12s. per case of 24 ; Pine apples, 2s. 6d. each ; Apples, Tasmanian, 6s. per 24 ; Pine apples, 2s. $8 d$. each; Apples, Tasmania,
case ; Tomatos, English, $6 d$. per lb. ; do., foreign, 1 1 d. per 1 lb ; Cucumbers, 2d. each ; Cabbage. 18. 3d. per dozen; Parley. Cucumbers, 2d. each; Cabbage. 18. 3d. per dozen; Pa. Broad
$6 d$. per bunch; Turnips, $2 d$. do ; Carrots, $3 d$ do. pallo Beans, 2s. to 2s. 6d. per bushel ; French do., 68. 6d. per ballbushel ; Scarlet Beans, 6s. 6d. do,

## HAY.

Averctget.-The following sov the averages of the pricm at the principal metropolitan markets durina the past weeli: Clover, prime, 908 . to 115 s . : do., inferior, 503 , to 80 m ; hay, best, 60s. to 95 s. ; do., inferior, 30 s . to 60 s . ; unixture. 7us, to 98s.; and straw, 20s. to 40s. per lowd.

## CORN.

Averages. - Official statemant of the average price of British Corn, imperial measure (qr.), for the week oudin July 13, and for the corresponding period in the previout July 13, and for the corresponding period in the prev, 740


## POTATOS

Bonovar: July 16. -Quotations: Old, 40s. to 60s. per ton: New. 80s. to 130s. per ton.
SPITALFIELDS: July 16. - Quotations:-Hebrons, 80s. to 100s. ; Puritans, 90 s. to $100 \mathrm{~s}_{0}$; Snowdrops, $80 \mathrm{~s}_{\text {. }}$ to $100 \mathrm{~s}_{\mathrm{s}}$; Kidneys. 100s, to 180s. per ton.
Stratcord: July 16.-Quotations: - Old : 25s, to 40s. per ton. New: Beauty of Hebron, 80s. to 90 s. ; Kidneys, 90s. to 100s.; White Hebron, 85s. to 90s. per ton.
Farringdon: Ju'y 18.-Quotations:- Now: White Hebrons, 5s. to 5s. $8 d$. per cwt. ; Red do., 4s. 6d. to 5s. do. ; Early Monarch, 5s. to 6s. ; Puritans, do.: Jersey, 48 o to 58 per cwt.
Lomdon Averages: July 17.-New: Hebrone, 808, to 100 s. Snowdrope, 80s. to 100s. ; Early Regents, 80 s . to 90 s. ; Early Rose, 75s. to 85 s . ; Jersey, 70s. to 908. ; Cherbourg, 65s. to 75s. per ton Old : Magnums, 30s. to 40s. per ton


The term "accumulated temperature" indicates the aggre gate amount, as well as the duration, of degrees of named : and this or below $42^{\circ}$ Fahr. for the period degrees-a "Day-degree" signifying 10 continued for an inversely proportional number number of degreen for an inversely proportional number of hours.


The distriots indicated by number in the first oolumn are 0 Scotland,
 10, Iroland, 8.: ©hannel Islanda.

## THIPASTWETK

THe following summary record of the weather throughout the British Islands for the week ending July 13, is furnished from the Meteorological Office :-
${ }^{4}$ The weather was unsettled and rainy in the extreme western and northern parte of the kingdom, but generally fair in all other localities, althongh some rain was experienced in nearly all places on Thuraday or Friday.
of the period buture was rather high during the earlier days of the period, but fell considerably towards its close, and the average for the week did not differ materially from the normal value. The highest of the maxima were recorded either on the 7 th or 8 th, and rangel from $80^{\circ}$ to $82^{\circ}$ over the greater part of Ragland, to $72^{\circ}$ in Ireland, and to $71^{\circ}$ in the north and west of Scotland. The loweat of the minims were recorded, as a rule, during the latter part of the week, and ranged from $41^{\circ}$ in 'England, N. and E. ${ }^{\prime}$, $42^{\circ}$ in 'England, S.W.', and $43^{\circ}$ in 'England, E.', to $51^{\circ}$ in the 'Channel Islands.'
"The rainfall exceeded the mean in 'Scotland, N. and W." and also in "Ireland, N.', and juet equalled it in ' England, N. W.; but in all other diatricts there was again a deficiency "The bright sunshine was in exceas over the defciepcy England, as well as in 'Scotiand, E.': but in Ireland and the Weat and north of Scotland, the amount but in Iretand and the the mean for the time of year. The percentere of the poesibl duration ranged from 62 in "England, 8." and 61 in the 'Mus land Counties, and from 'England, $\mathbf{S}^{\prime}$ ', and 61 in the "MıdRoglish dietricts, from between 46 and 59 in the other


## To a Minor bard.

Poat, who long hast tuned thy song
In praise of Roses and of Lilies,
And wreathed each line with Eglantine
To please the lovely Amaryllis,
The taste in flowers those lines embody Is jast a little bit démode.
If thou wouldet write for our delight
(And that of her whom thou adorest),
No longer wait, but celebrate
The latent triumphs of the florist:
Why obstinately shat thine eyes
'To horticultural novelties?
They flant themeelves on hot-house shelver, With petala apangled, twisted, forked :-

## Sarely the Mase will not refane

To recognise the modern Orchid!
Should gazing on their glorien tire thee,
Their names alone mast need inspire thee.
How aweet, my friend, to seize and spend The wealth these noble namen supply us;To sing of Masdevallias

Of Zygopetalum, and Phaius,
And, seeking for a rhyme to " blonom,"
To find it in "Odontoglossum"!
Then there's Cymbidium and Oncidium, Lycaste with the parple lip,
Calanthe, too, of gorgeous hue.
Then haste!-The vacant laureatenhip(I're shown the way)-'tis thine to win it, So set to work this very minute -Pall Mall Gazette

## ENQUIRY.

"He that questioneth much shall hearn much."-Bicox.
Britier Wines. - "C. H. I," withes for some receipts for making wine from Carrante, Rapberrien, Gooneberries, and Plums.

** Owing to the large imerease in our circulation, we ar veluctantly under the neccessity of goine to press some hours eartier. Our contributors, who vell know what this impliess, wia week as possible. Communications should reach us not later tha Wednesday.
** Plants, Fruits, etc., to be Named.-Corraspondents demanding time and research for nameir soiution asking question to obtain an answer to their encutrites in the current week Specimens should be good ones, carrefully pocked and numbered and not more than six should be sent at one time. Leaves only, of Florists varieties cannot, as a rule, be named.
Annoals for Standing the Winter: $W$ Agrostemma co'i-roses fimbriata, 是font; Aly sam maritimum, $\frac{3}{3}$ foot; Bartonia aurea, $1 \frac{1}{2}$ foot Cacalia coccinea, 1 foot; Calliopais Drummondi, 2 feet; C. coronata, 1 foot; Candytuft, whits, lilac, and criman, 1 foot; Chryanathemam Barridgeanum, $1 \frac{1}{2}$ foot; Clarkia elegant, in varie $y$, $1 \frac{1}{2}$ foot; Collinsis, in variety, 1 foot; Erysimum Peroffokianam, $1 \frac{1}{2}$ foot ; Eschscholtzia californica, 1 foot; Gilia, in variety, $1 \frac{1}{z}$ foot; Leptosiphon densillorus, 1 foot; L. aureas, 咅 foot; Lapinue nanue and others, $\frac{3}{4}$ to $2 \frac{1}{3}$ feet; Nemophila varieties, $\frac{3}{4}$ foot; Shirley, Orientel, and Iceland Poppien; Sanvitalia procumbens, $\frac{1}{2}$ foot; Silene pendula, $\frac{3}{4}$ foot; Sweet Peas, 5 feet; Venus Looking.giasa, $\frac{3}{4}$ foot; Virginian Stock, in variety, ${ }_{4}{ }^{3}$ foot. The above is an ample lint for any but jarge gardens, and contain many very pretty plants. To make quite sure of having a diaplay, it is pradent to make sowings in Septamber in mall 60 -pote, and thin the eedlings to five or six in a pot. They should be wintered in cold pits or banked-up frames clowe to the glass, and protected from hard fronte, and well aired at of her times. These may be planted out in Marcb.
Booss: C. M. T. The Landscape Gurdener, by Jon. Newton, published by Hurdwick \& Bogup, 192, Piccadilly. Milner'n Landscape Gardewing, pab-
lished by Simpkin, Maruhall, Kent \& Co., Stationera' Hall Court, London, E.C. - F. C. Heinemann, Erfurt. The American Florist Company's Directory. Price, 2 dollarn. Chicagn: Published by the American Florista' Co. It containa list of Florists, Narserymen, and Seedmen in the United States of America, benidea other asefal matter.
Carnation Failing to Bloom: J. H. Cansed by over-watering, probably. There is no disease risible.
Cabnations: J. A. The appearances are probably due to the presence of eel-worms. They are derived from the oil, so that they are difficult to get rid of.
Chrysanthemom Buds: $X$. The crown-bud is the terminal bud of the main stem, and therefore is really the terminal bud proper. The terminal bud of the Cbrysanthemum fanciers is the terminal bud of the ide-shoots. It might be called necondary terminal bud to avoid confusion, the proper terminal bud being called the primary terminal.
Eucharis: $W$. J. They are affected by the bulbmite, and there being no cure for the malady, you had better barn all the affected bulba and make a new atart with clean plants.
Grapes: R. $D_{i}, L_{0}$. The apote are due to a funga figured in the Gardeners' Chronicle, July 21, 1894. Spraying with Bordeara Mixture in the very young state would be serviceable.
Namis of Plants: Correspondents not answered in this issue are requested to consult the next number. S. 1, Leptospermuco ericoides; 2, Spirms orbifolis: 3. Eryngium alpinum ; 4, Hierochloe redolens: 5. Lilinm monadelphum ; 6, Centaurea acabiosa. -C. H. I. 1, Ls chnir chalcedonica; 2, Galega officinalis; 3, Justicia carnea; 4, Altbæa officinalis; 5, Clarkia elegane; 6, Stenactir ape-ciona.-W. Over. Cattleya granulosa, var. Dubasymonii. - $X$ 1, Pyrus Sorbaz, the true Service; 2, Spiræa callona.-E. J. N. $\mathbf{A}$ very good variety of Stanhopea oculata - W. M. Dendrobiam superbiens.-M. 1, Mgrsiphyllum asparagoides, often called Smilax; 2, Phyllanthan nivonus; 3, Cyrtomium (Aspidium) falcatum, a cold greenhouse or conservatory Fern; 4, Lastrea arintata variegata.-G. M., France, The flowert of Epidendrum were quite dried up on arrival, but they appear to be of the variable E. fragrans. The abnormal flower is very ain-gular.-W. V. T. Guevinia avellana, Proteacege, figured in the Gardeners' Chronicle, Julp 12, 1884. p. 41.-H. Henkel. Dondrobium gratiotiatimam, the other probably Palox macalata var. candida. - Amateur. Lavatera trimestris.

Peaches: R. G. H. Without aeeing the treen we are $^{\text {a }}$. unable to do more than make a guess at the cause of the evils complained of. We know how everely the salpharous fumes of coke-ovens and burning pit-heaps affect the fruit trees at Lambton Castle ; and it does not seem improbable that the proximity of the smoky diatrict of Bgker and the aurroanding factories and collieries may have exercised a baneful influence on the trees.
Roses: J. C. S. We do not undertake to name Rosen. Sulphide of Potassium: E. H. Kept by mont chemiste.
Tomatos: W.J. The fraita have the "black apot," a dispase canaed by a fanga, Peronorpora lyco. peraici. Cat off forthwith, and barn all affected fruits, and dreat the plant with the Bordeaux Mixtare.
Vegetable Marrows Disiased: J. L. Wa cannot tell from your description of the case what it is that causen the lose of the plante. Kindly send an entire plant, or, at least, leavea, shoots, and roots, for our inspection. In the mean while, employ the Bordeana Mixture against it; of conre taking care to wath all fruite before cooking them.

Conmumcations Received. - W. R. G.-T. H. O.-R. D.


Phot graphs, dfecimens, \&c., Receivid with Thinks, Sander \& Cu. - K. Mider. Tomatos (nexr wepl) - F. W. O. cannot reply by port-G. W. W-G. W. (uext weel). we


## THE CARDENERS' CHRONICLE

## PUBLISHER'8 NOTICE8.

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## Gardeners' (Clironidle.

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## THE GARDEN CINERARIA.

 $\mathrm{A}^{\text {DDITIONAL evidence }}$ has now to be reoorded which may be of importanoe in relation to the question as to the origin of the garden varieties of Cineraria (see pp. 588 and 655 of our last volume). At any rate, it has value independently of any specifio application. In the first place, we have the positive testimony of Mr. Kelway in the Gardeners Magazine for June 29. Mr. Kelway claims that the garden Cineraria originated with him in 1837. In that year he raised seeds from Cineraria cruenta, and amongst the seedlings observed several having a distinct ring of white round the disc (a feature, we may add, much more characteristio, so far as we have observed, of S. Heritieri than of S. cruentus). From these Mr. Kelway selected two, and from these two be raised other seedlings much improved in habit and in the shape of the bloom, and handed them over to Messrs. Webber \& Pearce, of Merriott. Mr. Kelway, however, retained some himself, and their descendants now occupy several large houses. Mr. Kelway's plants then, are, in his opinion, pure uncrossed descendants from $S$. oruentus.But nearly thirty years previously hybrid Cinerarias were in existence in Germany, to say nothing of others, which it is alleged were raised in 1824, and in subsequent years.

It may then be taken as established that there were in the early part of the century seedling variations from S. cruentus, and also that there were crossed variations in which some other species than cruentus was concorned. These facts suggest an enquiry as to the cause of the seedling variations; and secondly, an enquiry whether the Cinerarias as now grown originated exolusively from one or from the other category. The first sabject is too vast and too recondite to be entered upon within the limits of a note, particularly as there is no direct evidence to be adduced. As a conjecture, we should think it very likely that seedling variations are the result of the dissociation of previously-mixed oharaoters, the mixture having taken plaoe perhaps ages since.

That the Cineraria, as we now know it, may have had a hybrid origin wittin comparatively recent times, is a bypothesis, which the facts now to be recorded show, is not to be summarily dismissed as unworthy of credence.

We have to thank Mr. Lynch, the Curator of the Cambridge Botanic Garden for specimens of a remarkable Cineraria which made its appearanoe in that establishment. Some plants of Senecio Heritieri, DC. (= Cineraria lanata, L'Herit.), were received, as Mr. Lynch informs us, from Kew, and, as it was desired to perpetuate the specien, seeds were collected and sown in the ordinary way. Only one seedling came up, however, bat this one showed a marked deviation from the type, and the colour of its flowers proved to be a redpurple self, with, in some particnlars, much of the appearance of a poor-flowered common Cine-
raria, although quite different in other respects. Mr. Lynch was naturally much struck with these peculiarities, and knowing that the only allied plants in the house were some garden Cinerarias, whioh flowered at the same time, he naturally concluded that the seedling was a chanoe hybrid, in which the garden Cineraria, or male parent, strongly predominated; and this seems highly probable from an inspection of the speoimens. It is, however, possible that the new comer may have been a seedling variation from a common Cineraria.

The Cineraria is too well known to require description, and it will suffice to mention its stout herbaceons stems, very large basal leaves, and auricled upper ones, in order to contrast it with those of the Senecio Heritieri, or supposed seed-parent, a figure of which will be found at plate 3987 of the Botanical Magazine. This latter is a half-shrubby plant, with slender white branches and cordate lobed leaves, ranging from about 1 to 3 inches in breadth, green above, densely white tomentose beneath, and the petioles without basal aurioles. The corymbs are lax, the flower-heads over an inch aoross, and the ray-florets white, tipped with light redparple, and somewhat stellate. The hybrid shows evidence of its descent from Senecio Heritieri in its white stems, and the dense tomentum of the under-side of the leaves. The stem, however, has become nearly herbaoeous, and more than twice as broad as in the seed-parent, and the area of the basal leaves is four times as great. Some of the upper leaves are also aurioled at the base, and the tomentum of the under surface of all the leaves is strongly suffused with that peouliar shade of red-parple to which the originsl Senecio ornentus owes its name. The flowers have already been described. Thas, if this is, as seems to be the oase, a seedling from Senecio Heritieri, a distinct advance has been made in the direction of the garden Cineraria, and as the ciroumstances are fully known, it seems clear that the pollen was derived from the latter-probably carried by bees, whose exploits in this direction will be familiar to every gardener.

Shortly after the receipt of Mr. Lynoh's spenimens, we were privileged to see another specimen, presumably also of hybrid origin. This came from J. T. Bennett Poë, Esq., who tells as that in his garden in the south of Ireland, as in the Cambridge garden, a Cineraria came up fortaitously in a flower-pot in a house where C. Heritieri was growing, together with sundry garden Cinerarias. The plant has been since cultivated by Mr. Poë, and is of dwarf habit, with long-stalked, cordate, irregularly lobed, roundish leaves, destitute of auricles, and thinly olothed with white down on the under surface. The inflorescence and lilac flower-heads with a white ring are like those of C. Heritieri, intermediate between those of that species and those of a garden Cineraria. Here, then, is presumptive evidence of the existence of two bybrid plants in the origination of neither of which did $S$ ornentns directly take part, and both of which had a white ring, which is less visible in cruentus.

The plants are interesting and very instructive. They do not prove that our garden Cinerarias are of hybrid origin, but at all events they show, as we have already suggested, how easily a very few experiments might be made which would go far to settle the dispated points. As the true Senecio orueatas is now in cultivation, we would suggest that the authorities at Kew, as well as Mr. Lynch or others should, another season, endeavour to cross
it with S. Heritieri both ways, and carefully note the charaoters of the resalting hybrids, if such were obtained. A note by Willdenow is instructive in this connection. In 1809 he briefly described a Cineraria hybrida (Enum. Pl. Hort. Berol., p. 893), which he stated was oultivated in the Berlin garden as Cineraris cruenta, but which differed abundantly in having flowers nearly as in C. lanata (i.e., Senecio Heritieri). The cross we have just suggested would probably yield this C. hybrida, and should certainly be attempted. We do not know if a dried speoimen of this plant exists at Berlin, bat if so we hope our Berlin friends will let us know what it is like.

Another important cross should be attempted, namely, one between S. cruentus and S. populi-folius-the latter species being also in oultivation. This might demonstrate the origin of Cineraria lactea, other wise oalled Senesio cruenta var. laotea (Jacq. Ecl. Pl. Rar., t. 105), which De Candolle believed was a hybrid between S. cruentus and S. populifolias. It originated in the Jardin des Plantes at Paris, we believe, prior to 1813. We have had the good fortune to see a dried specimen of this plant, and having compared the plate cited with the two supposed species, we believe that De Candolle's judgment to be perfectly correct. The resemblance to Senecio ornentus is unmistakable, yet it is evidently not a variety of that plant, for it is nearer to S. populifolius, and instead of the basal auricles of the former, has a few small appendages near the apex of the petiole, as in the latter. Two or three well-conducted experiments might prove the origin of these plants, which are believed to be in the direct line of descent of the garden Cineraria of to-day-we use the term in its ordinary sense, for, botanioally speaking, the plant is not a Cineraria, but a Seneoio.

Incidentally we may add, that seedling plants of Cineraria cruenta differ markedly in appearance from those of a garden Cineraria. We need not, at present, trouble the reader with a detailed account of these differenoes, hoping eventually to be able to examine seedling plants of C . Heritieri and other species.

Nor need we go further now into the vezed question of the origin of the garden plant; but in reference to a remark made at p. 588, it is only justioe to our contributor, Mr. Rolfe, to state that his artiole was not written with any special reference to the question of hybridity, and that the figures and notes respecting the garden-plants were added by us after the manuscript had left his hands. It was a matter of ourrent opinion that the plant then flowering at Kew was the wild original of the garden Cineraria. Mr. Rolfe accepted the ourrent version, as we did ourselves, without oritioally examining the evidence in support of it or otherwise.

Reverting for a moment to the interesting plant sent us by Mr. Lynch, we may remark that it shows how quickly the characters of one parent may be partially obliterated, and we should not be surprised to find that a course of selection would complete the process without further orossing. Selection has made the gardenplant almost an annual-in actual practice at least, and this would tend to eliminate the shrubby character, and retain the herbaceous one. Mere superfioial comparison of wild and garden plants is not absolutely conclusive of the matter. Who, for instance, ignorant of the history of the tuberous Begonias, could trace in many of them any sign of B. bolivieneis or other species, well known to have taken part in the genesis of the race?

# New or Noteworthy Plants. 

## ROSA WICHURAIANA.

Although this species was only introduced to Britain about three years ago, it already affords promise of being a valuable addition to the wild types of Roma in cultivation. It is distinct from any other species, and is easily recognied by the perfectly prostrate habit, and by the peculiarly bright, almont glansy appearance of the leaver. A receas figure of it has been pablished in the Botanical Magazine, under the name of R. Luciz, but the typical R. Wichuraiana is afficiently distinct for the name to be retained in gardens. M. Crépin, 1 leading continental authority on Roser , and the author of the present name, still regards it, I belipre, as being specifically distinct. It is a native of Japan, and belongs to the polyantha group. Tpo leaves are quite mooth on both surfaces, the leafotn of elliptical outline, serrated, from $\frac{1}{3}$ to $\frac{3}{4}$ in. long, and varying in number from five to nine on each lesf, The stipules are not fringed, as in $R$. maltilion, but slightly toothed, and a pair of short decurved spine guard the base of each leaf. The flowera aro pure white, and atand up above the foliage, which forms a dense covering, completely hiding tho ground. The pecies flowered at Kew for the firw time in 1893, and has proved a free-flowering and luxariant grower. I measured a shoot made lat year which was more than 12 feet in length. In the United States (from which country it reached us) it is highly spoken of, flowering so profurely $u$ to give, at a distance, the effect of snow. It in well adapted for covering sunny slopes, mounds, \&en, and may be commended to the notice of all who take an interest in the original types of Rona. W. $d_{0}$ Bean.

## Orchid Notes and Gleanimgs.

## CATTLEYA LABIATA MOSSI 压.

A corrzepondent kindly furnishes us with a flowe in which, as not unfrequently happens, the flow parts are in two, thus the two outer sepals are cromed by two inner sepaly, followed by four petals in a single whorl, two of the petain being of the form of the lateral petaly, the other two being lips. The columa is normal, but no ovary is formed.

From the Horticulture Internationale, Brawelf, comer a flower of the amme variety in which the lip in inseparate from the column, and greatly reducod in size.

## Cypriprdium Liebaudianum $X$.

A cross from C . lævigatam by C . Haynaldianam, raised by Mr. Page, gardener to Robert Lebandy of Bougival. The influence of the pollen-parent is very perceptible. The description is given in the last number of the Journal de las Societé Nationale in France.

Odontoglossums at Bankfiged, Bradford.
Henry Mason, Esq., in his pretty gardens in the Bingley auburb of Bradford, does not attempt to grow a collection of Orchids, but he growa a housef of Odontoglomams, and his gardener, Mr. Midgley, perfectly underatand their culture, and obtaisi satinfactory realts. At the time of our vialt, probably no other Orchid-house of equal size could have possessed a finer display of flower-spikel of the best varieties of Odontoglosamm crispam, and, in a lesser degree, of other ipecies Many of the plants have been cultivated in this house for neveral yearm, and the progressive staget murked on their large plamp pseudo-bulbe bespent good culture. The house in which the plants ate cultivated is a apan-roof of rather low pitch, a padin of moisture-holding York stone runs up the middle, and beneath the staging on each side rain-water tanke occupy the greater part of the floor. Tho ataging is of iron, the lower one being constructed close, so aa to hold water, and the aacending athe above it is of trellis woodwork, in order to elevats. the plante at the point farthert from the path, and
inverted pota are slano used for this parpose where found necessary. The shading is on the outside of the roof, and it is arranged to run on supports, which keep it well above the glats, so that in the hottest weather the houne is kept at a comfortably cool temperature. These are point which are invariably to be found in any cool Orchid-house in which the plants thrive, and in apite of occasional attempta to improve on it, it is atill the best pattern of a cool-house-the abandant tankage, which some Orchidgrowers decry, being still one of the healthiest feataren in such honse。
Among the large-flowered O. crispum at Bankfield not a single indifferent form appeared, while some were remarkable for their spotting. Among these were the handsome Odontoglossuma crispum Stevensii, a fine form of the $O$. Jenningsianum clase, with rose-tinted flowers blotched with purple; and several very handsome varieties of $O$. Andersonianum. Also in bloom were a few good plants of O. polyxanthum, O. triamphans, Cymbidinm Lowianum, and Oncidium macranthum, the whole making a fine display, and pointing to the advisability of growing one class of Orchid well, rather than a general collection in an indifferent condition.
In the Cacumber-honse a bank of Coelogyne cristata was remarked in fine condition, with a large plant of C. c. alba in the centre.
The Vineries and Peach-houses were bright with taberous Begonias, Pelargoniums, \&ce; and the conervatory was chiefly filled with large plant of Camellia and greenhouse Rhododendrons, with Odontoglossum citrosmum displayed on the roof. Mr. Midgley prides himself on his kitchen garden, which he keeps in perfect order ; and in the flower garden the Roses were very fine, notwithstanding the severity of the past winter.

## DENDROBIUM CRUENTUM.

This fine Dendrobium was originally discovered by Mensra. F. Sander \& Co., on the Weat Coast of the Malay peninsula, and deacribed by the late Professor Reichenbach in the Gardeners' Chronicle xxi. (1894), po 604. It has alway been scarce in gardene, and not until a recent importation by the same firm have good healthy apecimens been obtainable. It flowers, which are thick and wax-like in sabstance, are of ivory white tinged with green, the distinct keels at the back of the sepals being often of an emerald green colour. The lip is handaomely marked with crimson. As may be inferred from the locality in which the plant is found, its proper place in a warm and moint house; the only difference between the resting and the growing meason being marked by withholding water for a time after the growthe are fully made up. Now that good apecimens are in the country (fig. 17), it proves a good grower, which had formerly been donbted.

The Rosary.

## NOTES UPON NEW ROSES.

Muce interest is felt by romarians in the question whether certain new varietiea of Ronem are seally acquisitions in the true sense, or merely possess some slight distinctive quality without sufficient merit to warrant their cultivation in the fatare. We never have too many really good new Roset, and it is all the more pleasing to find our home-raiers again so well in front of our Continental friends.
Without the leath heritation, the palm muat go to the Measte. Dicksons of Newtownards, Ireland. Many of us who saw their box of twelve diatinct new Rones, which won at the National Rose Societg's Show at the Cryatal Palace, were mach strack with the beaaty of the flowers therein. Usually one finds one or two fairly good flowers, the remainder being indifforent. Bat in this dozen there was good quality and pleasing variety. Oar mont experienced growers were load in their praise ; and I may also mention as an intereating fact, that
no fewer than ten of the twelve are of Mesmra. Dicknons' own raining. Bat to get a little closer to our notes. Mariel Grabame, this is, as I adjadged it, a sport from Catherine Mermet, nud no Tea-scented Rose of grester promise has been wont out for many years. We know of the fine qualitien possensed by one of its parents and by its nister sport The Bride. Messrs. Dicksons told me that it is in every way a counterpart of Catherine Mermet excepting in the colour, which is a pale creamy-white, delicately flubhed with very noft rose. The 600 miles journey that this variety had endured in trying weather for any cut Rose, impressed me very favourably, seeing that the bloom was ataged in such a fresh condition, and I have little donbt that the card of Commendation will be replaced by the coveted Gold Medal npon it next appearance.
Countess of Caledon in a hybrid Tea, and a great addition to this class of Rones. It is a grand grower, of a perfectly distinct shade of colour, namely a pink and soft shade of rose combined, and an a decorative plant it is sure to be in good demand. A card of Commendation was also awarded here. Tom Wood is a Rose of a very pleaning colour, being of a deeper tint, and I should judge it to be also a much faller


Rose than Madame Casin. Lady Moyra Beanclere gave me the impression of Ernest Metz and Madame de Watteville combined. Bat the best and most connistent of all the new varieties, was Mra. R. G. Sharman Crawford, \& H. P. of extra merit. Whenever shown it has been a grest attraction, not only because of its deep rosy-pink coloar, which is dintinct, but on account of the bold manner in which the blooms are borne, the base of the petals being mach lighter than the tips, while on the outsides they are shaded with pale flesh pink. The form is perfect, size good, and with me it has kept a certain freshness of shading that few other Roses conld retsin during the late sultry westher. This is a Gold Medal Rose, while the firat prizes and Firsteclasn Certificates it has won are very numerous. A boz of twelve blooms was decidedly among the very beat ataged at the Cryatal Palase. Like Mra. John Laing, it has no fanlt, and will be equally indispensable in collections. Helen Keller (H.P.) has not yet won the Gold Medal, but it has secured almost a dozen First-clase Certificater ; it is a splendid grower and bloomer, after the style of Mra. John Laing, but distinct from that variety. Matourneen (H.P.) I have only seen twice, and it gave me the impression of resembling Helen Keller
and Mrs. R. G. Sharman Crawford combined; colour a silvery-flesh, with roue abading. I am told that ita growth and freedom in blooming is remarkable.
Avoca (Tea) is somewhat like Ernest Metz for size and form, but it was atill considerably brighter, after a long journey which necessitated ita boing cat upwards of thirty hours.
Marchioness of Downshire (H.P.), one of last year's Gold Medal roses, I did not think so much of as before, but the meavon has been againet a Rose of this class. The colour in a satiny-pink, of great clearness, and with delicate rose pink shading. This is one of the most distinct Roses we have, and will yet, be shown in grand form by those who poseess it.
Marquise de Litta (H.T.) is a very pecaliarly shaded form of La France (H.T.). It is a good grower and free bloomer; carmine-rone with a vermilion centre, the two thader blending in a unique and pleasing way. A treble at Gloncester, and aeveral good aingles at the Cryatal Palace, atamp this as a promising H. Tea.
Clio, Sylph, Alister, Stella Gray, Lorna Doone, Corinna, Dake of Fife, Shamrock, Captain Haywood, and Robin Lyth have pleased me most among the remainder. At Gloucester, Richmond, and the Cryatal Palace by far the best of the new Penzance Briara was Jeannie Deans, a wemi-doable flower with very nhowy ntamens. Ite colour is brighter than that of the others, and the flowers are far leat fleeting. A. $P$.

## Plant Notes.

## ALSTREMERIAS.

Tex large clumps of these growing in the border on either side of the ontrance to the Black Hamburghhouse at Gunnersbury Park cume through the severe winter unharmed, the only protection afforded being a mulch of manare and leaves placed over the ground to the depth of about 6 inches. The position is sunny and hot, and, being on a slight alope, is perhaps favourable to the well-being of the taberous roots. It would be interesting to know when the roota were firat planted on this particular apot, and how many varieties were originally placed there. One thing is quite certain-that the origial clumps have enormonsly increased, the tubers being pushed further and further afield as the seasons paos. They are never diaturbed, bat have reached the extreme edge of the border.
It hat been remarked, that "Alotroemerian were at one time much more largely grown than they are at present, and the genas was represented in every garden." This, it is to be feared, is generally trae ; and yet many inferior abjecte are grown in borders that do not possess a tithe of the beauty of the Alstroemeria. Exposare to the full blaze of the aun appeara to be immaterial, so long an there is good cultivation, an is conclunively thown in the experience of the plant at Gunnerabary, where it occapies a apot quite shadelens daring the hottest part of the day. Water is rarely given; the mulch economises the moisture in the aoil, and the plante rarely suffer for lack of it.
It is not because any difficulty is experienced in obtaining plante that the area of cultivation has become to circumscribed. There are certain apecien and their varieties that are readily, procurable, such at aurantiace, orange-yellow, atreaked and apotsed with red, which is found to vary under cultivation, but all are verg showy; auren, golden-yellow, probably a variety of the foregoing; chilensia and its varieties, varying in colour from delicate rose to deep orange or red; ocalata, a doabefal species, colour rone-parple ; Pelegrina, purple and white, and ite white variety, albs-perhaps one of the tenderest ; paittacina, crimoon and purple; and pulchra (tricoloi), white, cream, and yellow. When planted, a compost of peat, leaf-mould, and sandy loam ohould be employed.
There appeara to be no common name for the Alaticemeria, though one or two forme are known as St. Martin's flower; and the white form of Pelegrina
bears the name of the Lily of the Incas. This should have a apecially warm apot if planted in the open, or, failing that, the protection of glass. R.D.

## Hydrangea Hobtensia var. Lindleyi.

In Cornwall and Devon Hydrangea Hortensia is one of the nhowiest of hardy flowering shrab; ; in Mr. Rashleigh's garden at Menabilly especially, it is aned in great nnmbers and with admirable effect in partially shaded positions in the vicinity of walks and carriage-drives. Farther north it is seen in great beanty, but only in favoared localitiey, or after unusually mild winters. Near London it rarely flowers oatside, the winters being asaally ${ }^{0}$ severe as to destroy the terminal bud. The variety Lindleyi possesses this advantage, however; no matter how badly hit by frost, it pashes up shoots freely from the axillary buds on the previous eearon's growth, and as thene (unlike the common Hydrangea) flower the name neason, the loss of the terminal bud is of little account. The flowers of this variety are of a pale rose colour, appearing in flat corymbe, which menaure 3 to 5 inches acrons, the onter row consiating of large-petalled, aterils flowert. The variety is abundantly repremented in the collection at Kew, and is now in bloom there. Other bardy apecies that flower well are H. panicalata, H. radiata, H. pekinensio, and H. arborescens ; but with the poasible exception of H. paniculata, the plant ander notice may be considered the bent of the genus for outdoor planting. It is known also ander the names of H . rosea-alba and H . japonica.

## Stringa japomica.

This Japanese Lilac has been deacribed in glowing terms by horticulturita in the United States, and by visitors who have seen it in flower in that country. In England it hat not been cultivated long enough for anyone to any with certainty what rank it will eventually take among hardy treen and shrubs, for it has not flowered above two or three times, and many Japanese deciduous thing succeed much better in the United Staten than they do under our duller akies. It iv, at any rate, perfectly hardy, and two amall bushes were in flower at Kow during the early part of Jaly.
Syringa japonica is a small tree of vigorous habit, which forms a diatinct trunk, Its leaves are broadly ovate, very alightly downy, and pale green in colour on the lower surface, dark green and glabrous above. On the small apecimens at Kew their texture and nize resemble the common Lilac. The amall white, alightly fragrant, flowers (about $\frac{1}{4}$ inch in dismeter) are produced in large compound panicles; of about 1 foot in length at Kew, but on fall-grown plants they are dencribed at at least twice as large. The general appearance of this plant when in flower auggeate a connecting-link between the Lilace and the Privete. The apecien is a native of the Northern Itland of Japan, and wae introduced to the Arnold Arboretum in 1876.

## Rosa setigrba.

Although the wild types of Rosa are generally past their flowering season at this date, R, netigera in now at ita best. It is a North American ahrab, and is known there and here an the Prairie Rowe. It differe from all other native species in ite nemiacandent habit. Aboat a dozen plants arranged in a group are now making a pretty diaplay in the Ros collection at Kew. In habit it ponsesses the vigour and grace unally associated with rambling Rosen. The shoots are long and arching, and the laxariant leafage, of a rich bright green, makes an admirable vetting to the flowern. The leafletes number from three to five, and are remarkable for their large nize, some being 3 incher long by $1 \frac{1}{4}$ inches wide; the under surface and the petiolen are covered with fine down. The flowere single, of a very bright shade of roue, measare 3 inches acrosu, are devoid of fragrance, and come in dense clanters, amid the foliage. The beanty of this apecies of Rose, and its valuable property of flowering late in the reseon, do not appear to be fully appreciated even in the United Stater, and atill less in this country. W. J. Bean.

## PRESERVING FRUIT.

Considmbing the increase that hav taken place in fruit production within the last few years, and recogniaing that the preserving of fruit, so that it may come out perfect at the end of several months, mast be of immense benefit to growers, who at the time the fruit is ripe often have to accept prices for it which do not pay the cost of gathering, we give the following extract from an excellent lecture upon the subject of the "Preserving of Fruit," given by Miss Maria Parloe, teacher of cooking, Boston, and delivered in connection with the Masaachasetts Horticultaral Society.
There are two way, said Miss Parloe, of interpreting the word "preserving," as applied to frait, the general underatanding among housekeepera being that the frait is cooked with a generous amount of ungar, the product being a rich compound of goodkeeping quality. In its broadest sense, "preserving," when applied to food, means to ave from decay by drying, canning, combining with a prenervative abbstance, \&c. It is the latter sense with which the lecture deala.
The most primitive method of preserving food. was by drying the raw article in the ann and air, and thia is atill practised to a great extent. Artificial methods are now used, but the sun developa in some froits a lavour which is lacking when artificial heat is ased.
Although nearly every Raisin grower in Californiz has a drying house, he resorts to it only when the sun faile him. In the cane of Peaches, Applea, and Apricots, the fruit has a frether and more appetiaing appearance when dried in the evaporators, and its commercial value is, therefore, greater. When drying fruit, it is important not only that it shall be sound and of good quality, but also that it shall be prepared quickly and dried rapidly. When all moiture is expelled, it will keep for years in a dry place.
The second method of drying is to cook the fruit a long time, reducing it aa nearly as possible, to a paste, spreading this in thin sheets, and drying in the an or by evaporation. When free from moistare, this fruit can be packed in boxen and will keep indefinitely, and is saitable for traneporting long distances, as for the nee of armies or emigrants. When fruit dried by either of thene two methode is to be naed, it must be softened by the addition of water and cooking.
A third process of drying is to cook the fruit for a long time with angar and water, and then partially dry it. In this case the nugar is largely the preservative agent, and the drying goes on only until no syrup drips from the frait. With clone packing in boxes or jars the frait will keep well in any climate ; hardening, of course, when exposed to the air for a conaiderable period. This fruit is ready for use at any time, but is more of a confection than a aauce.
Thene three methode enable all to have the Figa, Dates, Prunes, Apricots, Apples, Peachen, \&ce. of the world. In New England, where most of the fruite are preeerved by canning, they are apt to lone night of the enormous amount of wealth, health, and comfort that these methods of preserving represent.
The more modern procen for preterving fruits, and by far the mont uneful and healthful, is that of canning. This seeman to have been introduced to the French Government in 1810 by Appert. Since then it has been conatantly improved. The dentraction of germs, and the exclavion of air, are the principles upon which canning is based. The article to be preserved is cooked for a short time, and is then put in jars from which the air has been expelled by heating them to the boiling-point.
They are then sealed, and when cold, are net in a cool, dark place. If all the conditions be right, the heating of the cans and fruit thorough, and if the cans, covers, \&cc., be in perfect condition, the fruit will keep for an unlimited number of yeara, and When opened, will be found to have nearly all the freennens and aroma of newly-gathered frait. Whilst this is true of the majority of fruite, it is not mo of
all. The Strawberry sabject all. The Strawberry sabjected to this process
will come out a pale, apongy, insipid thing; whereu the Raspberry weems to have ite colour, flavour, and odour intensified, If, however, a generous amount of augar be added to the Strawberry in the cooking, it will retain its shape, colour, and flavour.
It is an error to attempt to can the Strawberry withoat sugar, or with only a small amount. Neithyer can sugar be put to Strawberries and then the frait allowed to atand, as with Pine-apple. The cagur aeems to draw the juice out of the frait and leave it a apongy mant.
Some fruits can be canned without heat or mgur, The jar should be packed fall of the fruit and then placed ander a fancet, having the water run in rapidly for a minate, that all the air in the jar shall be displaced; then aeal, and pat away in a cool, dark place. Perhaps not many kinds of frait would keep if pat up in this manner. Certainly, there can be no expectation of success with juicy fruit of any kind, Mins Parloe has, however, been successful with Rhobarb. Green Gooseberries and some kinds of Plums can be preserved in this manner. It seems to be a question whether the acid in these fruits does not have a good deal to do with the keeping quality. Many kinds of frait can be mized with their own weight in angar, packed in jars, sealed and pat amy in a dark, cool place. They will keep well, and have the flavour of the fresh fruit. It has been found in the case of small berries pat up in this manner that the seeds become harder and more noticeable than in the cooked fruit. Pine-apple should not be put op in any other way than this, as it comes out aimply perfect.
The third method of preserving fruit is by cooking it with sugar. In this case augar is largely the preo servative; and where the sagar is added to the frait, pound for pound, it is not necessary to mal the product. Bat the "self-sealing" jares are no convenient that most housekeepers prefer to we them rather than the old-fashioned stone jarr. The French candied fruits are an example of another method of preserving fruit.
Having glanced at the various methods of pro. serving, the lecturer turned to consider some of the exsct ateps necessary to secure the best reanlts. More fruit is preserved by the exclusion of air than by any other method. To be auccessful in thin, certain things are essential. Firat, the frait mut be perfectly sound; next, every utensil used in the process muat be absolutely clean; again, the cans must be perfectly air-tight; finally the cans and fruit mast be made free from germs and air before mealing, and the canned frait muat be kept in a dats, cool, dry place.
As to the different modes of treating varions kiait of fruit. It in known that when the germs are hilled and the air is excladed, augar in not necesuary for the preservation of the frait. But there are few kind of frait that are not improved by some augar, becaute it fixes the colour and flavour, and gives much fine renalts. Some kinds of fruit require but littie aggy for this purpose, while others are poor indeed witho ont a generous amount. One has only to contraí the flavour and quality of the canned Peaches that are put up with and without augar, to realine the great auperiority of thone with which asccharine matter has been used. Where fruits are too dry to give out enough juice to cover themselves generouly, s light eyrap whould be used. Bat in the jaicy frais avoid water if possible. A good rule in the can of mall berries is to allow one-third of a pound of nagur to each pound of fruit. There are people who would not care for more than half that amount of nggar, while others might like more. The following hes been found a capital method for small berries: hato twelve quarts of berrien picked clean put three quarts into the prenerving-kettle and on the fire. Heat slowly, and break up with a wooden refe table-masher. Then turn the fruit into a piece of cheens-cloth and preas out the juice. Wash the preserving-kettle, and put the jaice and sugur into it, stirring until the sugar melts. When the syrap boils, skim it, and add the whole berries. Watel the kettle, atirring occaaionally, antil the preserv
boils, then akim, and cook for ten minutes longer Fill the jara, and veal.
For fruit like Peaches, Pears, Plums, \&c., make a light syrup in this manner:-Pat into the preserving kettle 4 quarts of angar and 2 of water, boil, and then skim well. Have the fruit pared, and cook it gently in this ayrap until tender; then can, filling up with syrap. Q inces mast first be cooked in clear water until tender.
In paring fruit, use ailver-plated kniven, and drop ench piece as soon as pared into a bowl of cold water which has been made acid by addition of lemon-jaice. This prevents the fruit from tarning dark. Use earthen bowla and wooden or silverplated spoons. Avoid any delay while doing this work.
To peel Peacher and Plamr, pat a little of the frait into a wire basket, and plunge it into boilingwater for a few minutes. Take the basket from the boiling water, and plunge it into cold water for a few reconda ; then turn it into an earthen dish, and peel with a silver knife. Save all the jaice that falls into this bowl. When the work is properly done, the skin will peel off perfectly amooth. There in really lens wate and leas labour in removing the akins of fruit in this way than in the common way.
To fill the jara, have on the stove two pans partially filled with water. Let the water in one be boiling, but in the other not no hot but that the hand cannot be held in it with comfort. Pat a few jars and covers in the cooler water, tarning them now and then until all parts become warm, then put them in the boiling-water. This doea away with all danger of breaking. When the jars have been heated in boiling water, drain, fill, and seal them at once. In filling the jara, be aure that they atand level, that the syrup has filled all the interatices between the fruit, and that it also runs over the top of the jar. Even with this overflowing of the syrup, it will be found that, after cooling, the can is not fall ; but if the work has been properly done, the fruit will leep all right.
Preserving with angar, pound for pound, is not very extensively practised now, most people preferring the simpler and more healthfal mode of canning with a amall quantity of agar; atill, there are some fruite that are better when done in this way. There is probably no fruit more delicious than the Strawberry, either fresh or preserved, yet there is none about which the honsekeeper freele more uncertain. It is something that cannot be preserved withont plenty of sugar. The following has been found to give the greatest antisfaction. It is true the preserve is very rich, and cannot be eaten in large quantities, bat it is better to have a little in perfection than a great deal of an anastiafactory quality.
Sun-cooked Strawberries.-Ute ripe and the finent fraits. Put them in the preserving-kettle with a pound of sugar to each pound of berries; firat a layer of fruit, then a layer of augar, and so on. Do not have the mixture more than 6 inches deep. Place on the fire, and watch. When the prewerve begins to boil, skim carefully, and simmer for ten minaten. Now pour the frait into meat plattere, and place in the ann. After an exposara to the mua for twenty-four hours, put them ap in jars or tumblers, and cover. It may be said, the an does not thine twenty-four hoars, but the frait may be placed on tablea by the windows in a sunny room, and let remain there for weveral daya, or until it has had its full sun bath.
The Larger Truits.-All fraitr are prepared for prenerving in angar in the amme way as for canning. Then a rich ayrup is made-416. of sagar to a pint of water-and the fruit is simmered in it antil tender and clear. Such fruits as Qainces and hard Pearz should be cooked until tender before being put in the gyrup.
When the sugar ahould be added.-Some kinds of fruit are better for having the ungar added to them when partially cooked, while others ahould alway" have it added the moment they are placed on the fire. Again, one kind is better for atanding for hours in the sagar, while other should not have
the angar touch them antil they are ready to go on the fire. There are a few fraits which are far better without sugar than with it. This is the case with the Prune, with which sugar should never be pat, long alow cooking serving to develop a fine rich flavour. Cranberrie, on the other hand, ahould have a pint of angar to a quart of berries, and the augar, water, and berries munt go on the fire at once and be cooked rapidly for a ahort time, asy twelve to fifteen minates. No other method will give a astisfactory resalt.
Jelly.making.-In no department of preserving does the housekeeper feel lens sure of the remulte than in jelly-making, to much depends apon the condition of the frait. This is more pronoanced in the case of small fraits than with the larger kinds.


When Carranta are over-ripe, or have been picked after a rain, the reanlt of aning them will be ancertain. An underatanding of the properties in frait which form the basis of jellien may help the housekeeper to a better knowledge of the conditions and methode emential to anccens.
Pectine, which forms the baxis of vegetable jellies, is a substance which, in ita composition, resemble: atarch and gum. It gives to the juices of fruite the property of gelatinizing. This property is at its beat when the frait is jast ripe-better a little under-ripe than over-ripe. When boiled for a long time it loses its gelatinous property, and becomes of a gummy nature. These facts show the importance of uaing fruit that is bat just ripe and freehly picied, as well an the need of eare not to overcook the juice.

Canning Fruit Juice. - One form of preserves which is moat uneful, convenient, and wholenome ahould be more generally adopted than it in ; namoly, the canning of frait jaice for creams, icen, drinks, \&c. Certainly every honeekeeper ought to preverve enough of the jaices of the Strawberry, Raspberry, Peach, Apricot, Grape, \&e, for her own une. They can be preserved with or without angar, although nagar is adrocated. Boil for ten minaten, and seal while boiling hot. J. J. Willis, Harpenden.

## DENDROBIUM HILDEBRANDII.

"Turs Orchid wan firat diacovered by Mr. Hildebrand, superintendent of the S. Sban States, and aome plante wore eent to Memurn. Hugh Low a Co. Afterward my men :came acrons it, and without knowing what it was, I sent nome to Mesurn. Charleswortb, who identified it, and sold the planta. Its habitat is on the borders of Siam, a good way east of the Salween River, and some 300 miles east of Lake Inle." R. Moore, in Orchid Review, June, 1895 p. 169.

Mr. C. Leenon Prince, of the Obmervatory, Crowborough, Sunnex, who kindly sent us the photograph of the plant (fig. 18), remarke as followa :-
"Juat a year ago, I parchaned of Menarn, Charlenworth \& Co. of Bradford, a newly-imported plant of Dendrobium Hildebrandi, but the bulbs were in such an exhausted condition that I hesitated at firat to buy it ; eapecially an little appeared to be known reapecting it. However, my gardener (Mr. Slater) has aucceeded in flowering the main bulb, which is 18 irchea long, and has produced nineteen blossoms from neven apiken.
"The nepals, five in number, are nomewhat crimped, and the two lateral ones measure from $2 \frac{3}{4}$ inches to 3 inchen acrons, and are of a creamy-white colour. The lip measures exactly 1 inch at its mouth. When the flowern were fully expanded, now six weeks aince, it was removed to an intermediate house, and at this date,; June 1, 1895, the flowers are as frewh as at firat.
"It has been the admiration of all who have eeen it, and I think a large plant would be a fine sabject for exhibition parposen, an I feel quite confident that it will prove to be very floriferoun.'

## THE RELATION BETWEEN THE WEIGHT OF THE SEED AND THE GROWTH.

From Agricultural Science, the organ of the Society for the Promotion of Agricultural Science, issued in Jane, 1895, we extract the following pasaages from an article by Mr. B. T. Galloway, on the growth of Radinhes as affected by the size and weight of the seed. The anthor saym that :-" The influence of the aize and weight of the need on the growth of the plant has received considerable attention. While it is claimed by some that the size and weight of seed has no material effect on the product, the majority of those who have studied the aubject take the opposite view, and have proved their claims by well-conducted experimenta." The results of such enquiries are thas summarised at the end of the paper: " 1 . The large seed germinated more quickly and with more certainty, and produced marketable plante sooner and more uniformly than the small weed. 2. The mall seed gave proportionately larger plante than the large seed, but in practice this does not warrant the use of the former. The practical conclusions that may be deduced from the experiment are :-1. That by the ane of large seed from 85 to 90 per cent. of the crop may be brought in at the mame time. 2. That practically all the plante than grown being marketable, no ground is wasted. 3. That enongh time is aaved by uaing large weed to grow one additional crop during the seamon; in other words, if four cropeare grown, uaing mixed seed, and waiting for all the plante to attain sufficient aize for market, five cropa can be obtained if large need is planted. 4. That the only additional expense is the extra amount of seed needed, all the maller onen being sifted oat and
thrown away. The extra expenue will average about 25 cents per poand of need, and when it in known that a pound of seed will plant about 1500 square feet, the matter of extra expense become trivial."

## Nurbery Notes.

## THE FERN NURSERIES, SALE.

Tere collection of Ferns grown by W. \& J. Birkenhead, is growing in importance every year. The firm, as is well known, make Ferns a apecialty, and rince the great Fern Conference hela in London in 1890, at which they received the Gold Medal of the Royal Horticaltaral Society, they have been continually in the front at the principal nhows in the kingdom. Since the writer last visuted the nurnerien quantities of honses have been bailt, and the general condition of the plants has improved greatly. There are now aboat 1400 varieties astorted in the varions divisions, comprising stove, greenhouse, hardy exotic, British, and Filmy. A large portion of the Britinh, hardy exotic, and greenhonse kiads in sedded out into nursery rown out of doors, thus giving one an opportanity of comparing out-door and in-door growth, and selecting the most endaring for outside ferneries, rock-work, and for plantation and garden-work.

Among the most beautifal to look at in the many rows out-of-doors is the divinion of Lady Ferns, chief among them being the setigerum group, in which the bandsome cut pinnule traversing each other are conapicuous in A. filix-foemina Victorie and the dwarf and striking f.-f. grandicept. A. f.f. Verwone and its crested form catch the eye, the pinum are to wavy, and the pinnule crented. Victorix itself, apart altogether from the setigerum blood, is a grand variety, from its cron-sword-like pinnulet, and it is beautifully dwarf and compact. Another little beauty atrikes well among the group, A. f.-f. digitatum tenue, and do aloo the forms of f.-f. congentum and its dwarfer, more crested fellow, congestum cisitatum. A. f.f. Kilmoryensis is a plearing green, making a atylish plant. These and othera have partially suffered from the aharp frost of Jane 6, bat are now recovering. Some more, particularly Osmunda regalis, are growing ander a batch of standard Apple and Plum trees, but Mr. Birkenhead naye they do much better out in the oper, because the moiatare stolan from them by the frit-tree roots operstes prejadicially; and, moreover, these bedded-out Ferns show to much better advantage in the artuma after the indoor ones are partially giving way.
In a lean-to house, these hardy Britich Ferns are in great exaberance. We noticed particularly a welected form of Athyrium f.-f. setigeruna called grandicept (Birkenhead, raiser), with tall apright frond closely packed together, and much broader in pinnule than the normal form. Another gem is A. f.-f. plumosum elegans, so light in the green and arching in the pinne: A. f.-f. Todeoides is like the Todea in habit. A. fo.f. conglomeratum is very heavily crested, and a capital rockwork Fern. There are one or two promising forms alonguide of this of the same breed. A. f.-f. Elwardnif is another fine dwarf variety. A. f.-f. acrocladon has much-branched froade, and is very heavily created-like cockscomb, in fact. A. f.-f. plamosum superbum is the chief of its class, the frond are of a fine lastroas green, and the crested form of grandicaps is one of the very finent of the plumose groap. For apecimen plant purposes thes plamosum take front rank. A. f.-f. Pritchardi in abundantly distinct from its compeers, having long and narrow fronds, which are aptly likened to in waggoner's whip. The male Fern, Lastrea flix-mas, is represented in a good many Tarieties, pontibly the choicest being the crinpy fronded Aactuona, sometime called crippatistima, abandantly diatinct from the type. The pretty dwarfer grower decora is noticeable.
Arong the Mountaia Buclier forms we noted Oreopteris ramo-coronans, a much-branched and cretted form, as ite name show, an in Latrea peendo-
mas cristata fimbriata, is mach cut and beantifally crented, an admirable companion to the rare ramosissima. The Pseudo-mat coronaria (Birkenhead, raiser), is a atriking form of this division. Lastrea dilatata grandiceps is a stylish-looking fine crested form of admirable greenery. Polystichum angulare cristatum is one of the most striking of its class; P. a. plumosum, as its name implies, has spreading feathery fronds, making a fine apecimen-a worthy fellow to the beantifal longipinnulum. There in a particular form of P . aculeatum, whose young fronds are more than usually beautiful. Woodsia alpina, one of our rarent natives is doing well on a shelf in this house.
The span-roof honses are about 50 by 10 feet, and are closely shaded in the interior with a kind of scrim, they do duty for British Forns in quantities. Some of the commoner forms are not to be despised even among varieties, although some of them require glass protection. For instance, Aspleniam lancifoliam was beautiful so grown. The Scolopendriums were a grand groap, one named fimbriatum is deeply frilled and fimbriated, and shoots cut to advantage; cristulatum, is abandantly crested, and makera very atriking plant. Moonæ is fally crested and fimbriated, and Clapham's ramo-cristatum is one of the boldeat created and freent growing of this admirable Hart's-tongue divinion; Lastrea æmula, and particularly L. densa, are very compact and distinct, and amell like new-mown hay. Polystichum congeatum polydactylon make fine ornamental pot plants. What a fine deep green the depending form of Peeris depauperata puta on in its mataring fronds, with the tassel-like cresta weighing the frond down!
Among the North American FernstheViolet-scented Fern (Lastrea fragrans) is one of the most prominent, as it is one of the mont popular, because of the frond melling like Violets. A few plants in a clowe house diapense abundant fragrance. Phegopteris hexagonoptera is a Beech-looking Fern, with captivating greenery, the pinnæ deeply cut. The Japanese Lastrea atrata is dintinct and noteworthy. For a atylish exhibition plant there is nothing to beat Osmunda Claytonisna. It grows about the wame nize as the Royal Fern, but the fronds are of a pure velvety green, the fertile fronds particularly commanding attention. Onoclea rentibilis is another tall grower, with large prominent drooping pinnex, making a telling exhibition plant. Adiantam pedatum in auch a uneful plant for trade purpones, and one of the most beaatifal too, that we cannot pass it over, seeing the quantity grown here.
Amongut greenhouse Ferne the Britioh Maldenhair (Adiantam capillus veneris) doen bent under glas. There is one grand form conspicuous with finely-crested fronde, and having the pinnex larger, named daphniten. Among the cuneatum batch we noticed the following of the rarer kinds: grandiceps, crested; Luddemannianuta, also crested, and both evidently good growere; the beantiful rabellam, with its claret-tinted young fronds, and the atylish-looking Veitchii; Balantium culcitum, makes a fine apecimen plant, and its deep sea-green fronds are telling: Cheilanthes farinosa is a very handsome ailver Fern that does bent in a cool climate ; if the leant degree coddled, it becomen infested with thrips. Davallia tenuifolia Veitchiana makes a handsome specimen-so light and feathery. We noted the novel Lomaria aspera, rigid in the fronds, and so brittle, yet with pinnæ atanding erect, which makes it a very attractive plant. Another two novelties atruck un, Mohria tharifraga, and itn variety achillæfolia, beautifally cut and quite Achillea-like. The Chinene Nephrodiam in an admirable Fern, and no is N. odoratum.
Among ntove Ferns, we noted Adiantam concinnam gracile, the beantiful Farleyenue in handreds doing well, a new desirable-looking one named Feei, the white-striped macrophyllum remarkable too for ita young, pink tinted fronds, an acquisition in its way, and a comparative novelty ; and one more than uanally telling, named Weigandii, a fioe crisped form with pinnæ overlapping each other, and of a good green ahade. Amongst Divalliss, *uvpended in cork batkets,
was the charming fijienais, and a selected one, named elegans, sent out by Messrs. Birkenhead-a decided acquinition. The golden Gymnogramma Martenuii in always to the fore; but a new one named grandicept in even richer gold colour than the type, and being beantifully crested, beat it completely; the Schizophylih gloriose makes a good bauket Fern, with ita fronds depending. Oaychium auratum is a narrow-fronded species, green and gold, the fertile frond golden. Pteria aspericaulis is distinct, with its red venation, and a pretty Fern to boot; and tricolor is grown in quantity, and well grown too. The planta, notwithatanding the heat, are all remarkably clean and well grown.
Filmy Ferns occupy a considerable apace in the older houses of the narsery. They are in some camen planted out, in others in pots, all either in framen, or covered with glase with movable panes for occanional evaporation. Mr. Birkenhead nays that with atudy and the proper management the mointare is the main factor towards successful culture. These beartiful gema are not every body's plante, bat the lover of Ferns cannot help peering at them with a longing eye. Chief among those that took our fancy were Hymenophyllam at tenuatum, and the tapering caudicalatum, the dwarf and pretty nidam of the demissum type; Foraterianum, a deep green; and hirsatum, a woolly-looking subject; palcherrimum, the pendulous trifidum, nice pieces of Tanbridgense, and the equally pretty Wilsoni. Then in Todeas we would place at the very front grandipinnula, Fraseri, and Moorei; of course, auperba is the beat looking of its class, when well done, and the reat of the Todeas were going along well here. The Trichomanes alabamensis is charming to look upon; arriculatam is also beantiful, and so is the loftylooking alatum. Among others we noted T. radicans maltitadinoualy cat, and deep green; T. Lyalli, and parvalum of the fan-fronded type; T. r. dissectum cuneatam, a fine wedge-looking fronded Killsraey Fern; candens, diatinct and pretty; the beatififul trichoidium, which no collection is complete withoat, and the mall-fronded venosam.
There are other things grown to sapply the local trade, such as Rhododendrens, frait trees, some alpines, nome bedding plants, of sorta ; but the chief article of commerce is the Ferns, of which the firm claime to have the most varied and interesting trade collection in the world, consisting of over 1400 diferent kinds. Viator.

Choice Bulbs at Messes. Wallace's, Colchbetrb,
Among other choice bulbn, besiden the brilliant Calochorti, alrendy noticed, fine collections of Irites, Lilies, Brodiæas, \&ce, are grown. The Iria bedr had been sheete of bloom, but were nearly over. Seversl of the beartifal and all too-seldom-grown Brodixas, however, which bloom from April to Jaly, were still in flower. The following are among the best of those hardy balbous plants, easily grown in any warm border, producing large heads of bloom, montly in umbels, which last a long time in great perfection: - Brodiza volabilis is one of the most atrikiag. This is a twining plant with very slender stemen reashing to height of 4 or 5 feet, with beantiful rone-coloured flowers; it has this ningalar and unique peculiarity-the flowers continue freth for some time after severance from the planta. B. capitata, as its name implien, is nuch a striking coll trast to B. volubilis, that it is difficult to realise that they are of the same genus ; it has tall heade of purple flowers. There is also a choice white variets of this, which is very fius. B. coccinez grows 3 feet high on a thin wiry atera, and lasts more than a month in bloom. B. lactea and B. lilacina have mixed coloared flowers of white, grean, lilac. B. laxa, rich umbels of blue flowers, one of the best. $B_{1}$ peduncalaris produces fower tlowers on long pedicella, the umbele being over 15 inches acron, flowern por celain-white。B. rosea, a new specien, with drarl habit, with many flowers of a pale pink colour. Bo Howelli, which is one of the earliest, was, I was told one of the beat, with large umbels of beautiful porcelain-white floxers, delicately streaked with blue.

This ia hardly the seanon for a full feat of Lilies. Bot owing to the great variety grown, special cultare and skill, visitore can seldom go away unrewarded. As grown here, L. canadense is quite distinct from L. superbum. The colour varies from yellow to orange, bill shaped, heavily spotted inside the flower; L. nitidum resemblen a slender L . Humboldti, a graceful bright golden-yellow Lily, apotted
which nothing more need be said. $L$. dalmaticam is quite diatinct from the common though beaatifal Martagon in several colours. It grow to a height of from 4 to 6 feet, producing three or more sike, each pike carrying from one to two dozen of light or dark purple blooms. L. pardalinum var. minor it a amall charming variety of a well-known much-prized pecien of Lily. It bears numgrous


Fig. 19.-caippandla vidalli: flowers feite.
(Shown at the Royal Horticultural Society's meeting, July 23. See report, p. 102, col 2.)
with red, the rame as L. colambianam. In Henryi, the orange-yellow pecionm, this is one of the tallent and mont striking Lilies, growing ander cultivation to 2 height of from 5 to 8 feet in good soil, and bearing from twelve to twenty richly-coloured flowers. L. Krameri is remarkable in character and colour, the latter being a beautitul pink-rare in Lilien. L. Leichtlini is very beautiful and graceful, the colour citron-yellow, richly spotted with purple. L. longiflorum giganteum, an improvement on $L$. longiflorum and L. 1. Harriai, being larger than either, than
mall orange-coloured flowera, apotted black, the tipe of the petals being at times atained of a crimson colour. L. Parryi, one of the mont beantiful and fragrant of all Lilien; the colour a citron-yellow, npotted with chocolate-brown.

Among dwarf Lilies the following deserve upecial notice, viz., Alice Wilmon, clear lemon; I. Her. manni, flower large, of a rich crimaon-mahogany colour, the finent in the L. elegans group; Lo Van Houttei, flowers large, of a made of crimun, a very fine Lily. There wa aleo s darker coloured veriety
of the type, indeed, it was almont black, which appears to be an acquisition.

Here were to be seen many other balbs and plant of great interest, one of the most beautiful, as it is sare to become whenever, in vase or borquet, brilliant coloure are desiderated, being the bett of all Heuchera sanguinea. D. T. F.

## PLANT PORTRAITS.

Acscis alavcesceks, Willdenow, Fl . Ph., and Ferns of N. S. Wales, t. iv.

Activotus heltawitil Lammandikbe, F\%. Pl, and Fermb of N. S. Wales, t. lit. (Thanel-flower). EuC in. S. Walas, t. it. (Hansel-fower): EUCALYPTUS COBYMBOBA, Smith, Fl. Pl. and Ferms of . S. Wales, t. 11.
helleborus altifolius, Garder, July 8.
Oxalis violacea, Mechans Monthly, July
Plum Gabrierc Combrs, Revue Horticule, July 16.
SyRinga vulgaris fro-pl. var. Madame Lemome levue de 1 Hortic. Belge, July.
TeComa Smithil $\times$, Garaen, July 13. See Gard. Chron., p 19, vol. ziv., 1893.
Telopea Speciosissima, $\boldsymbol{R}$. $\boldsymbol{B}$, The Waratah Fl. Plo, and Ferns of N. S. Wales, t. i.
Verbesina pinistifida and V. Mameaka, Revue Hoktisole, July 16.

## "THE KYOTO INDUSTRIAL EXHIBITION OF 1895."

Held in celebration of the eleven-huadredth anniveraary of the city's exiatence. Written at the requent of the Kyoto City Government by F. Brinkley. A very interesting work is the one before ut, which, though brought out on the occaaion of the Kgoto Exhibition, relates almost wholly to the ancient capital itself, and to ita many intereste and induatrien. It therefore forms wuch a guide as will tell visitore not merely about treasures actually etaged for exhibition, bat also of the wondrous sighte and delightfal surroundings of Kyoto; of the palacen, temples, diatricts, and canning craftsmen famons for various branches of art: for keramics, textilem: embroideries, metal-worky, cloiszoné enamel, and bric-a-brac. This handbook has the fascination associated with all books descriptive of Japan and her wonders, and has the great advantage of being free from the personal and imaginative paanages which too often mar the accounte of enthuasatic travellers. Therefore, the praises bsatowed upon Kyoto, the nativen, and the arte and industries, are the more acceptable and credible. The city wherein seventy-seven emperor have held their court has atill a renown of no small importance. "Kyoto," says Mr. Brinkley, "connidered under it former aspect," at a centre of art and industry, "as the chief town of a highly civilised nation, is probably the least ontentations city in the universe. Apart from it Buddhist temples, which are gorgeous and imponing, it may be deacribed an a collection o neat but rastic dwellings, nestling among hill of the mofteat possible contours, brooded over by a wonderful cryatalline atmosphere, and resonant with the gurgle of limpid atream that babble ander its bridges and beside it thoroughfares. It water, indeed, is one of the gentle city's richest posenaions. Fur these rivalets possens bleaching and dyeing properties unequalled elewhere throughout the empire, so that whoever desiren \& robe of pure white or of brilliant hae must go to meek it in the Wentern Capital (Saikyo). Kyoto is a city of garden. The humbleat dwelling hae ite tiny park, with miniature waterfalls, toy hills, and dwarf forents. Even to-day, although the tide of a ruder civilination has disturbed the quiet current of old-time life, you may find the potter or ensmeller decorating his vacen or building up his aubtle tracery of many-hued deaigna, while the flowers and leaves which he copien look in at him through the windows of his workshop." This pasage contain an explanation of the very enence of Japanese art. It in enentially a native gift, inopiration coming not from foreign sourcem, but from the every-day urroundinge of thone who have the eye to appreciate and the akill to reproduce them in all their picturenquenes. This Gaide to the Kyoto Exhibition, while dealing avowedly with the city itmelf and the chiof features of it, yet given an excellent idea of some of the charscteristice of Japan in general, which, however over-written or
over-sung, is ever new and ever original to him who looks apon it for the first time. And now, from April 1 to Jaly 31, or for even longer time if the venture prove accenstul, Japan's arte and induatries are in coure of representation at the Kyoto Extibition, whick (to turn for a moment to the business portion of our hand-book) is located in baildings extending over 9 acres of ground, sarrounded by a garden 40 actesin extent, and inclading an annexe deroted to fisherier. Altogether, the enterprise is an important one, and gives no mean indication of the wealth of resources, both actand and mental, posessed by the ingenious people who bave originated and carried it ont.

## ※CIDIUM NYMPHAOIDES, D.C.

Is November, 1877, I found floating down the river Oane, at King's Lynn, in considerable abundance. Scirpus lacastris, which had evidently been cat from the sides either of the river itself or from some tributary drain. The Scirpus wan affected with Paccinias Scirpi, D.C., which at that time had not previously been observed in Great Britain. The - Geat Oase at King's Lyan is a river of considerable sive, and for nome 14 miles above the town is tidal. It rises on the bordern of Oxford and Northamptonshire, near Brackley and Towceater, and drains an area of some 2700 square miles. The prospect of localising the affected Scirpus was therefore not very bright. Various attempts, however, have from time to time been made. The Scirpua is abundant enough along the banks, and in various draina and ditches in the fens. but never was I able to come across the Paccinia in its natural home. The river to Denver and from Denver to Ely, and the extenaive pits at Ely known ae Rusuell Hole, were searched in vain. The Puccinia is donbtless an heterccions apecies, and as it in uncommon, there in little doubt, could it be found growing naturally, one would have little difficulty in maling out ite life history, as such a pare Paccinia is not likely to have its Exidionporet ou \& very common plant.
Daring the past winter, 1894-95, I made an archeological excursion to Earith, a mall town in Hanting donshire, situated a few miles from St. Ives, on the river Oase. In one of the fen drains, the Old Bedford as it is called, an abundant growth of Scirpus exiated. affected with the Paccinia, so thet I felt aure I should at last be able to make out its affinitien.
In the Botanische Centralblatt, 1891, No, 27, Herr P. Dietel, in a resume of the paat ten years' work on the life history of the Ureoinen, states that Chodat" investigation ahow that Paccinia Scirpi, D.C. is connected with the Tecidiam on Villarsia nymphaeidet. Early in the present month, Jaly, 1895, I again vinited the Old Bedford at Earith, and was rewarded by finding the Ecidium nympheooides in great profation at the zame place in which during the winter I found the Paccinia on Scirpus lacustris, thus confirming Chodat's statement. The Scirpas war also growing abundantly in the River Oase, but all I examinad were unaffected by the parasite, neither did I find any Villarvia in the river itaelfo Charles B. Plowright, M.D., King's Lym, July 22, 4890.

## INDIA.

## Calcutta royal botanic garden.

$\Delta$ wowa the principal improvamenta effected during the jear 1894-95 in the garden, may be mentioned the entire remodelling of one of the conservatorien, which bas been laid ont on a new and more artistic plan. The road running along the river bank from the engine-houae to the gate of the Sibpur College has been conaiderably improved, and several mmall buildinga and a glase-roofed house for certain Ochids have been erected by garden labour. Dr. King's singular talent for landacape gardening bas. King's him, says the official memorandum, dariag the twenty-four years he has been in charge, to add greatly to the beanty of the garden by akilfol, grouping of treen and shanbs, and it now ranks high among similar inatitations for picturesqua scenery no leng
than for scientific completenes. than for scientific completenesu, Within the pant year he has laid the public under a further obligar tion by bringiag out a gaide to the garden, the want of which had been long felt. The book contains a map, a deacription of the garden, and a brief aketch
of its history aince its foundation in 1786, and copies can be had by purchase at the garden gates, and from Messra. Thacker, Spink \& Co., bookaellera, Caicatta.
Of the Lloyd Botanic Garden at Darjeeling, there is apparently little or nothing to record. The report does not state how far it fulfila the purpose for which it was originally established, of bringing together in one place those apecimens of the indigenous flora of the Eastern Himalayss which can be grown at the elevation of Darjeeling.

## Vegetables.

## St. DUTHUS PEA.

This fine Pea, which was awarded a Firnt-Clans Certificate by the Rogal Horticultural Society in Jubilee year (1887), han nomehow remained but little known, which is, a great pity, weeing there are a very fow better wrinkled Peas grown. It is well adapted for a last crop, continuing to bear till winter sets in. The haulm, pods, and seeds are of a dark green colour, and the production of ten Peas in a pod in quite a common occurrence, and hardly any pods have fewer than eight. The flavour is first-rate, and its cropning qualitien everything that can be desired. Why it has not taken a atronger position among late marrow-fat Peas I do not know, unless it be that, owing to its pecaliarity in remaining so long in a green condition, the seed ripens with difficalty. Although sent out six years ago, it is atill sold in quart packets to the trade, I believe, which looks as if there was not mach of it anved. It is a grand late Pea, though not no well known as it ought to be, $A . H$. [The sample of pods kindly sent by our correspondent fally bears out his statements. Ev.]

## A Nrw Pea, Rentpaykr

Seeing the interest you take in good vegetabley, I have sent you a ample of my new Pea, Rentpayer, which I think everyone will welcome, at it is what has been lacking. You will see it is a first-clans Pea, growing $1 \frac{1}{2}$ to 2 feet, strong, and robust in habit. If you saw it growing, you would say you had seen nothing like it for crop. It is a crons between Dake of Albany and Little Gro. I intend to send it out this coming apring. $H$. Brownhill, Sale.
[The plant in all that our correspondent mays of it, and the Peas, which number eight or nine in a pod, are large, dark green in colour, and of the Dake of Albany flavour when cooked. The variety partakes of the character of Little Gem in height only, in mont other respecta it is a Dalke of Albany. Grown in fields, it would do without aticks, but in the richer soil of a garden it would need to have short ones. The pods show at the upper part of the stem for about 1 foot down it. ED ]

## A New and Good Pea.

This description fairly applies to Sutton's Peerless Marrowfat, a medium, maincrop variety, which has done remarkably well in the gardens at Ddvonhurat, Chiswick, this zeamon. Mr, Gibson, the gardener there, deacribes it as the coming Pea in ita nection. It beara a large number of well-filled pode, the Peas being of good quality. From plants raized from need sown in pots on March 25, and aiterwards planted out, the first gathering was made June 20. The height of the haulm is about 2 feet. The earlient Pea at Devonhurst this seamon was that good variety, Ringleader, gathered May 31. J. B.

## The Week's Work.

THE KITCHEN GARDEN
By Jone Lambert, Gardener, Powis Castle, Welshpool. 8PINACH. - Continue to make aucceasional sowing* at regular intervals of time, choosing a cool, aomewhat shady place, as it is a plant that soon runs ap to sed in hot dry situations, and the poorer the ground the wooner it runa.

8ALSAFY AND 8CORZONERA. - If signs of running to seed are noticed, the flower-stalks mutt be removed, or the roota will be quite useless.

THE Bowing of Cabbage-beed. - Cabbage being an important crop in the apring seavon, I recommend that at least two nominga be made-one forthwith, and another at the end of the month, or, in the warmer parts of the country, the first week in Anguat. The earlier sowingu are the more important in colder districts, and anywhere north of the

Humber. In early parts the later sowings are more to be relied apon. It is a mistake to pat out large succalent plants which look well at the time and yet will not stand the winter. A plot of groand ahould be chosen as the site of the meed-bede that is well exposed to ana and air, and the land ahould be well tilled bat not over-manared unless it is known to be impoverished. Having dag and levelled, and trampled the land evenly all over, and raked off the atones, mark out the beds and sow the seeds very thinly broadcast if it is intended to transplant atraight from the beds. Perhaps a better way is to 00 w the meed moderately thickly, and prick out into other beds when the plants have made two pair of true leaves. Very early sowing and large plants result in the Cabbage bolting in the apring. Last season out of a bed of some thousands none bolted, and nearly every one withatood the frost, bat they were netted to protect them from the ravages of the wood-pigeons directiy the now melted down aufficiently to allow the pigeons to reach them. Ellam's Early is excellent for firt catting, and the Heartwell Early Marrow, Batternea and Enfield Market are all good varieties of Cahbage Seeds of all these were sown here on Jaly 29, A good planting of Ronette Coleworta may now be put out for late autumn use.
cauliflowers.-A sowing of Caalifower seed should be made when Cabbage seed in got into the ground. It is prudent to make three sowinga, at intervals of about two weeks. The variety Early London, if it be true, and it is treated properly, it still my favourite all-round Canliflower.
mISCELLANEOU8-Any ground cleared of its summer crops may bo planted with Cottageri' and Asparagus Kales. Purple and White Sprouting Broccoli, and even Brassels Sprouts may be planted where the quantity got in is not deemed equal to the probable demand.

## THER FLOWER GARDISN

By Batiey Wadps. Gardener, Birdsall Gardens, York,
bulbs for autumn plantina continued. -The single and double-flowered Anemones de. serve to bs planted extennively; the ningle varietien are the hardient, earliest, and the more unefal and they may be obtained from the balb dealen in fine mixtures or in named varieties. Some good single-flowered varieties are Masterpiece, scarlet; The Bride, white; Corralea, blue; and Garibaldi, vermilion. The double and single-flowered late varieties have large and brilliant flowers, as have alao the double French Carysanthemam flowered Good varietien of doubles are King of the Scarloter L'Eclair, King of the Blaes, Fea Saperbe, Thalie, Prince de Ligny, Ceres, Admiral Zoutman. Uneful varieties for planting in the herbaceous bordera for flowering in the autumn, are A. japonica, A. ${ }^{\text {j }}$. alba, A. j. elegana, and A. j. Lady Ardilann; and for spring flowering there is nothing brightar or more useful than Anemone fulgens; alao the yellow-wood Anemone, A. ranunculoiden, and the parple and white pasque flower, A. Pulatilla, A, P. albd, and the wood-wind flower, A. nemorona, and ita several varietics; the varieties of A. appeninat A. a. alba, and A. a. rosea. Hepaticas should be grown in every garden ; H. angulosa, H. a. trilobes alba, H. ceerulea, H. rabra flore-pleno, and severa others.
scilla or Squills are amongst the brightent and prettiest of spring-flowering bulba, Scilla sibirica, s. bifolia are the earlient to flower. S. natann, anid other good varietien are later, and all are good for planting in mixed bordern or as edgings to beda 0 other plants.
fritillarias, including Crown Imperial Lillet are showy plants for mized borders. Some of the varieties are tall, others dwarf, and all are atrols growers, bat they do not require much staking. The variegated varieties are very atriking when they do well; but they require good rich loamy soil, and should be planted in patches of 5 balbs. Good varietien are F. Aurora, F. lutea, F. rubra, ald F. ro variegata. Fritillaria Meleagris, having carioud smake'a-head-like blossoma, is of alender habit d growth.

GLADIOLU8 COLVILLEI ALBA is usefal for apinine and eurly summer flowering, and should be planto in the autumn before the corma begin to grom about 4 inches apart or in clamps in the herber ceous border, or in parts of the garden that wer sheltered from the colder winds. The flower apikes are uneful material for catting, eapecislly the variety G. C. rosea. A rich soil suite ghem and the bede or groups should be mulched wim ahort manure daring the winter.

COLCHICUM8.-These bulbs should be largely planted in clamp in the herbaceous border, an the plants flower early, and give brightness to the garden just when it is required. Early varieties are C. Balbocodiam persicam, B. robantum, B. vernam, and B. v. Plantii. The autuma and winter-flowering varieties are also very useful for bordert or rockwork.

CHIONODOXA.-Glory of the Snow is a Scillalike plant that looks well if planted in clumps with other pring-flowering bulbs. C. Lacilix, blue and white, and C. gigantea are good varietie.

## FRUITS UNDFR GLASS.

By Riciard Parker, Gardener, Goodwood, Chichester.
ORCHARD HOUSE.-The portable trees should be removed to a sunny place out-of-doors as anon as the fruits are gathered from them. Bo so doing the wood will become quite matured. The plants must be applied with clear water at the roct, and the foliage syringed at least once a day in bright weather, if the pot can be atood upon a bed of coal ashes, or each on a piece of slate to prevent worms getting into them. Large fruits of Apples or Pears should be aupported by atrip of matting or pieces of open muslin or netting an they approach maturity. Reduce the amount of nutriment supplied to the tree as the fruita approach the ripening stage, but continue to ayringe the foliage up to within a few days of gathering the fruit, and afford plenty of ventilation, 0 an to ensare the proper flevour. If birds or wasp are troublesome, all openings should be covered with light tiffany or canvan. In aome cases it may be necensary to tie some of the foliage back to expose the fruit to the sun.

FIG8.-The main crops of Fige in cool-上ozes now approaching maturity will require abondance of moisture at the roots, and in the air. Continue to pinch the growing shoots at the foarth or fifth leaf, reckoning from the base of auch shoots, retaining maflicient wood for furnishing a crop next season. Ripe fruit should be gathered daily in the early morning, placing them on fresh leaves, and patting them in a cool place, if not connumed forthwith. When the ripe fraits are gathered, the trees should be freely ayringed, doing this leas copiounly if damp weather prevaile, and in that event a slight warmth may be maintained in the heating apparatus at night. Any Fig trees or bashes requiring larger pots should be shifted during August, the roots then having time to take to the new soil before the end of the antumn.

POT VINE8.-Those for early fruiting next year hould have now completed their growth, the rent of the summer being required for the thorough ripening of the canes; and unless thil takes place the Vines will be uselen for early work. The ripening should not be hurried but gradasl, and the plants mast not be deprived of the amount of water required for the healthy development of the wood. They will not require any manarial aids to growth after this date. The foliage of such Vines should be syringed once a day, more air afforded, and in bright weather artificial heat may be dispensed with. By maturing the vines in this manner for a few weeke they will be in a better condition to be atood out of doorn later on.

## THE ORCEID HOUEBS

## By W. H. WHITs, Otehid Grower, Burford, Dorking.

AFFORDING WATER.-The chief work in the Orchid-houses during the rest of the month will consiat of watering and shading the plants, and ventilating the bouses. Owing to the external air having been very dry, I have been obliged in some divisions to depart from my customary rale of netting aside two day in each week for watering the plantr, and have been obliged to examine them every day to ascertain if water at the root was necesaary or not. Some Orchid, namely, Cattleyae and Lælias, do not suffer even if they are allowed to remain dry for a day or two-in fact, apecimen plants that are in very large pote are all the better for being occanionally deprived of water ar that length of time; whilat other apecien, au Cypripediums, Calanthes, Habenarias, Phaius, Bolleas, Pescatoreas, Ditas, and all kinds of plants growing on wood block soon thow aigns of diatresm. I Fould advise cultivators at the present messon to carefally exsmine the plants in the early morning; and in affording water to thone which are dry, let it be aufticient to wet every part, and to rash through the bottom-holes in the pote. Species which do not posmess paendo-balb, viz., Phalænopaic, Aërides,

Saccolabiums, and Vandas, should be watered often enough to keep the sphagnom on the surface fresh and green.

DENDROBIUM8.-Plants of Dendrobiam finishing their growth hould be watered with great care, for if too mach be afforded, they will begin to grow again; but ach late-growing specien as $D$. fimbriatum, D. Brymerianum. D. Phalænopais, D. superbiens, D. taninam, D. Dalhousieanum, D. Pariahii, D. clavatam, D. calceolue, D. albo-manguineam, and the evergreen aection, D. thyraiflorum, D. densifloram, D. savianimum, D. chrysotoxam, D. Farmeri, \&c., should not be allowed ever to get dry till growth is complete.

CYPRIPEDIUM8.-The apecie and varietien of Cypripediam, viz., $C$. insigne, C. Leeanum $x$, C. Spicerianam, C. Charlenworthi, C. Fairieanum, Schlimii, C. Artharianum $\times$, C. barbatum, and other which are inmates of the intermediate-house, may be copiously watered overhead two or three times every week, whether they appear to be dry or not

ODONTOQLO88UM8. -Taking the cool-hone plante as a whole, they should be watered juat often enough to keep the compost moist. The plant of Odontoglossum of the O. crispam, O. Peacatorei, 0 . triumphans, and $O$. lateo-parpareum sections, having bat little to do at this aeason, should not be kept in a saturated condition, or the old roots will decay, snd the new growthe just etarting get noft and weak.

MABDEVALLIA8.-All the Chimæroid Masdevallias require to have their foliage well syringed, and to be frequently watered at the root; whilat those of the Harryana and Veitchil sections ahould be watered only when the compost has become dry. To all housen, except that one in which are the Masdevallias, plenty of air should be afforded, espe cially during the middle hours of the day, when the invide temperature may be allowed to get comparatively dry, damping them down morning and evening The shading should not now be let down quite so soon in the morning a heretofore, and it shoald be withdrawn earlier in the afternoon, in particular in those divisions where the Dendrobiams, Cattleyas, and Mexican Oichid are placed.

## PLANTS UNDHR GLAB8.

By W. H. SmxTh, Gardener, Wat Dean Park, Chichester. POINBETTIA PULCHERRIMA.-Those plants which were the earliest raised from cattings will now bs ready for re-potting, and this time they should go into those pots in which they will flower. In order to ensure dwarf plants, they should be grown at no great distance from the glase, and never allowed to become crowded in their summer quarters. A good mixture of coil consists of loam, leaf-mould, and peat, with a mall quantity of dried cow-dung. After re-potting them, place on a very alight hotbed, atill close to the glass. If this be not arailable, then utiline a low pit into which heat can be turned in weather that is dull or cold. Keep the pit clone until the roots have penetrated the coil, when fresh air must be admitted, gradually at first. Laterstruck plants may also be re-potted, keeping these, however, still on the helves in the atove, ao se to hasten growth a little before putting them into heated pite or framen.

GLOXINIAB (SINNINGIA) gPECIOBA. - Young plants may be re-putted into $48^{\prime}$, or even larger pots if the tabers are large, keeping them in agenial growing temperature, when, if well looked after, they will make good flowering staff for the autumn. The hift afforded them at this date will tend to increase the size of the balbs, and the number of bloom next year. Gloxinias which have done flowering keep a little drier at the roots, and place them in cold frames, with a light ahade over them to prevent corching, and when the leaver have died down place the pots on their siden under the greenhouse or intermediate-houss atage.

PRIMULA 8INENBI8.-Any seedlings now standing in 60's whould be repotted forthwith, and thil time into $48^{\prime} \mathrm{s}$ and $32^{\prime} \mathrm{s}^{\prime}$, uaing good loam, leaf-mould, dry cow manure, with a moderate quantity of and. In performing the operation keep the soil clove up to the collar of the plant, making it moderately firm, and if a plant in not ateady, make it wo with three ahort pegs. Place close to the glass in a cold frame, and afford the plants light shading in sunny weather, keeping close for a few days after potting syringing the frame twice a day when the weather is sunny.

FUCHBIAS apring-ntruck will require repotting and the flowera to be pinched off them till the planta have acquired a good nefal size. They may be placed outaide in half-shade, and well syringed, especially the undersides of the leares, where thrips are apt to lark. Fuchaias treated in this manuer make usefal subject for the conservatory in late antumb.

EABT LOTHIAN INTERMEDIATE STOCKB. - SO a potful or boxful of each, according to needs, of the different coloured varietien for flowering in the spring, and place in a cold frame. A few of each variety may be brought into flower in the latter part of the winter by gently forcing them.

TREE CARNATION8 may be potted, and necared to green painted atick. The firat that were potted will have become eatablished, and may therefore be placed out-of-doors in the full sun, and stood upon, or sunk ap to the rims of the pots in coal-ashes their appearance, the syringe applied twice a day, and water carefully afforded, remembering that planged plants require mach less water than those atood on the aurface. The tree varistien are not nearly so auceptible to diseave as Souvenir de la Malmaison, and the two thould be kept apart

## THE HARDY FRUIT GARDRN By W. Pops, Gardener, Highclere Castle, Newbury.

THE BUMMER PRUNING OF FRUIT TREEB.Attention to the pruning of fruit trees at this seaton in of the firat importance, not only an regards the development of the prement crop of fruit, but of the thoots and frait-apurm. It should be borne in mind that the frait-buds cannot become fally developed without air and light; therefore, the disbudding and thinning of the hoote ahould be well carried out. If a tree is growing very vigoroualy, making a lot of atrong rank wood, and there are no fruit-buds, it is advisable to thin theme growths somewhat severely, in order to admit annlight right up to the base of the remaining hoots, and in a few weeks later, say about the middle of August, give each of the strong shoots a twist aboai 5 or 6 inche from the bane, not breaking them off, but letting the points hang downwards; this will tend to check the flow of asp and cause the back bude to plump up instead of breaking into fresh growth, which might be the case were the shoote cut back in the naal mander. Then, early in September, whilh the leaven are yet on the tree, take out a trench at a diatance of 3 or 4 feet from the stem, and root-prune nuch treen, working underneath the mass of roota, and severing the taproots with a knife. Having done this, fill up the trench with a mixture of tarfy loam taken from the mides of roads, or wach like fresh, gritty material, and charred garden refuse. This will encourage a frenh growth of rootlets before the setting in of cold weather, the tree being pruned at the ordinary winter-praning as rual.
early planting of atrawberries.-Where Strawberries have been layered to afford an early crop of fruit next year, the layers should be planted forthwith. Choo a warm, theltered position for the bed, which will be all the better for being deeply worked and heavily manared. Before proceeding to plant, tread the ground firmly. Ia planting, follow nature, and do not set the layers dri $p$ in the woil. Black Prince, King of the Earlien, \&cc., may be planted 1 foot apart each way for the firt season, each alternate row being taking away when the first crop of fruit is gathered; or they may be planted at 18 inches apart each way in the first inutance, which will be ample room for these rather mall growers for several seasons. Mid-seanon varietien are generally rather stronger grower:, and boald be allowed 2 feet each way, with an extra 6 inchez after every third row an an alley. The upsce between the rows may be utiliaed the frat the earlient crop the old Black Prince is yet hard to beaf, King of the Earlien is a useful early variety, Noble is very early and prolific, and the fruit very large, but it is deficient in flavour ; Vicomteme Héricart de Thury in one of the best varieties for early forcing, and outdoorn. For midmeazon, President and Sir Joweph Pazton are well-tried and atandard varietien. Frogmore Late Pine and Waterloo are good late varieties. Amongat newer onen are Royal Sovereign, which should take the firut place, being of excellent flavour and nice appearance, and it is likely to be grown extensively; Lord Suffield, Gunton Park, and Empress of India are alro of Aratrate quality, and well worthy of a trial.

## EDITORIAL NOTICES.

Advertisementa should be sent to the PUBLISHER.
Fowrpapers,-Correspondents sending reospapers should be careskil to mark the paragraphs they wish the Editor to see.

Local Mews.-Correapondents world greatly obtige by sending to the Editor early intelligence of Looal evonts likely to be of interest to our readers, or of any matters which it is desimable to bring under the notice of horticulturists.

Hustanationg, - The Editor will thantifuly receive and select photographs or drawings, suitable for reproduction in these pages, of gardens, or of remarkable plants, flowers, trees, ct.; but he cannot be responsible for loss or injury.

Lotters for Publication. - $4 l l$ communicutions intended for publication, as well as specimens and plants for naming. should be addressed to the Editor, 41, Wellington stroet, Covent Garden, London. Communications should be whittar or owe side orly or the Paper, ent as early in the week as possible, and duly signed by the writer. If desired, the signature will not be printed, but keph as a guarantee of good faith. The Editor does not undertoke to pay for any contributions, or to return unused communications or illustrations, unless by special arrangement.

APPOINTMENTS FOR THE ENSUING WEEK.

MEETING.
saturday, July 27-Royal Botanic Society.
SHOWS.
WEDNESDAY, JULY 31-Woring Horticultural (two daye).
THURSDAY, Ave. $1\left\{\begin{array}{c}\text { Bransford (Worcester) Horticul- } \\ \text { taral }\end{array}\right.$ taral, at Hopton Court.

CORRIVGTED AVERAGE TEMPERATURY YOR THE RNSEUWG WRER, DEDUOED FROM THE OBSKRVATIONS OF FORTY-THREE YEARS, AT OHESWICK.-63.2.

National Rove
Society. Northern exhibitiou at Derby. bition held at Derby on the 17 th inst., and reported on in detail in our last issue. The short and feverish Rose season is now over, for although there may be one or two Rose shows still to be held, the Northern exhibition of the National Rose Society really closes the seation.

The exhibition at Derby was, like those of the two which preceded it, far better than anyone antioipated, yet, upon the whole, not up to the average. It is difficult, and perhapm invidious to make comparisons when the circumstances are so very different, but, on the whole, it may be stated that Glouoester has held the palm for Tea Roses, those at Derby not being so good; while in the case of hybrid perpetuals they were better than at Gloueester, and probably about equal in quality to those at the Cryatal Palace. The lending amateur was asked after the awards were made, whether he thought his stand of thirtyaix was as good as those at the Palaoe; his reply was, "Certainly not!" and yet any one looking st the atand woald wonder where any exception could be taken.
The exhibition was intended to meat the necesaitiee of northern exhibitors, but they are few in number as oompared with those in the south, and henoe one need not be surprised to find so many, even of the chief prizer, being oaptared by southern growers. As might have been expeoted, Mears. Harkness \& Sons came out victorious in the chief olassen, oarrying off the Jubilee Trophy, the Gold Medal, together with the Silver Medal, for the best H. P., and various other prizes; some of their blooms were of first-elass quality,
and the stands altogether were very even in excellence. It is difficult in such stands as these to select those flowers whioh take the first rank, but the blooms of Gustave Piganneau and A. K. Williams, which obtained the Silver Medal, Horace Vernet, Charles Lefebvre, Her Majesty, Rowland Hill, Sazanne-M. Rodocanachi, were of this character. It has been sometimes suggested that seventy-two is too large a number even for nurserymen, because there is always sure to be a certain amount of "tail," but it would have been very diffioult to have pioked out any in Messrs. Harkness' stand which deserved this opprobrious title; there were oertainly none of them to which less than two points could be given, and most of them were worthy of three. Of course, this firm's position in Yorkshire, where the temperature is lower, and the rains have been more frequent, was in their favour, and it was the expectation of everyone that they would carry off the premier awards; they were near home, in itself a great advantage.

Unquestionably the great interest in the show was concentrated in the amateur classes, for there were to be competed for not only the Trophy and Gold Medal offered by the National, but the valuable special prizes offered by the Right Hon. Sir W. V. Harcourt, the prize offered by the Crown Derby Company, and the Piece of Plate offered by the Mayor. The first of these was won by Mr. E. B. LindsRLL of Hitchin, the seoond by Mr. Barker, also of Hitohin; and the third by Mr. Whitton of Bedale, a near neighbour of Messrs. Harkness. The Challenge Trophy and Gold Medal were awarded to Mr. Linnsele, who thus holds the northern and southern trophy. It need hardly be said that the quality of Mr. Lindserci's flowers was very fine; beside those whioh obtained the Silver Medals for the best hybrids and Teas, both of which were in his stand of twenty-four, he had grand blooms of Horace Vernet, A. K. Williams, Count Raimbaud, Her Majesty, Ulrich Brunner, Earl of Dufferin, Catherine Vernet, Sir Rowland Hill (affording a most pleasing contrast by its deep colour to the other flowers in the stand), Marie Baamann, Fisher Holmes, Countess de Nadaillao (Silver Medal), and Alfred Colomb. It will be notioed how many of these were of the rioh high colour varieties, which the Hitchin soil seems to produce so grandly. The second place in these contests was assigned to a northern amateur, Mr. H. V. Machin, of Worksop. His flowers were particularly fine, but wanted in some way the high finish obtained by the Hitohin amateur. Anothur rising amateur has this year made his mark, in the person of Mr. Parker, of Hitchin, and a very exoellent stand of his seoured the Vase given by the Crown Derby Company, a prize which many of those competing would gladly have won. The Major's prize was awarded to Mr. Whirton, of Bedale, Yorkshire, who a couple of years ago carried oft the Jubilee Trophy; his flowers were of good form and excellent colour. Mr. WM. Boyes, of Derby, who has taken infinite pains in organising and carrying out the exhibition, and on whom the chief burden of it rested, waa a successful exhibitor, but not so succeasful as he might have been had he not unselfishly sacrificed his time for the benefit of the Society. Tea Rones, as already said, were not of first-rate quality, although Mr. Buarside again showed what an enthusiastic intelligence can effect under most depressing circumstances. Few men who had witnessed the destruotion of their beat planta by removal and the terrible frosts of last winter, and who had
planted them in March, would have ventured to compete; but difficalties do not deter him, and although his situation is in chilling contrast to that which he enjoyed at Chipping Camden and at Birch, he will not readily relinquish the high position he has held for some years as Tes grower.

The position which Her Majesty took at the beginning of the season has been maintained to the close, the box of twelve exhibited by Messm. Alex. Dickion \& Son, and which carried off the prize for twelve blooms of the best light Roses was truly grand, clearly showing the variability of Rose blooming for Mrs. John Laing, a seedling of the same raiser; the late Mr. Heary Bennett was nowhere seen in such form as last year, although most people consider it a better Rose than Her Majesty; but the same firm was awarded a prize for the best bor of twelve new Roses which, with two exceptions, were flowers of their own raising. Conspicuous amongst them was Mrs. Sharman Crawford and Marchioness of Londonderry, others being Eileen, Con, Shandon, Killarney, Erin-go-bragh, Countess of Caledon, quite nem; Lady Moyra Beanclerk, quite new; and Shangraun, the two which were not their own raising being Captain Hayward and Madame Jula Finger.

There could not be any doubt as to the ercellence of the blooms which obtained the Silver Medals of the National Rose Society in the amatears' olass. Xavier Olibo (H.P.) was a fine bloom of a Rose not often seen in perfection, and to many, probably, the blooms of Horace Vernet and A. K. Williams in the same stand were considered, perhaps, slightly superior toit. The Tes in the same bor, Comtesse de Nadaillac, was a fairly good one; but we have often seen this fine Rose in better condition-s statement whioh might bo made of most of the Tea Roses in the shor. Mesars. Harkness \& Sons' A. K. Williams wh a magnificent flower, of large size and of good colour; while Messrs. Croll \& Sons' Marie vin Houtte was a splendid speoimen of that lovely Tea.

Although no Gold Medal had been awarded at the two previous show, Mesars. Alrx. Dicrsos \& Sons were again successful in obtaining that coveted award at this show, with Helen Kellen, a pink Rose with a slightly purplish tint in it; it is a well built, solid flower, but it is questionable whether if Lady Moyra Besuclerk, another of their flowers, had been exhibited in better form it would not have obtained a higher award than a Card of Commendation.

The colleotions of garden Roses attracted a good deal of attention, especially those exhibited by Mr. H. V. Machin, of Worksop, amonget amateurs, and those of Measri. Paul \& Son, and Messrs. Townsend, amongst nurserymen. In Mr. Machiv's collection there was s large number of the dwarf Polyantha section, whil L'Idéale, Red Damssk, and Camden were well shown. Messrs. Paul \& Son depended more largely on the new exhibition Teas, among which Madame C. Guinoissean, W. Allen Richardsol, Alister, Stella Gray (somewhat in the style of this latter flower), added considerably to the bearty of the stand. In the display of Roses, Mr. H. V. Machin was again first, and his colleotion whs: very fine one, but there is atill a good deal to be done in this class. In one collection there was sin attempt made to break through the dead level monotony usual in such arrangements, basket and vases being used to brealk the level line which is usual in such exhibits; but this colleotion wh spoiled by having two or three exhibition bose with single blooms placed in the front-a for

low vases containing the dwarf Polyanthus would have added considerably to the effect. It is evident that we have very much yet to learn in the æsthetic arrangement of groups of Roseswe call to mind a colleotion exhibited at the Drill Hall some two or three years ago by Mrs. Edward Mawley, of Berkhamsted, from which a good deal might be learned by those aspiring to direct taste in such matters.
It will thas be seen that the projectors of the Derby Show have reason to be satisfied with the result of their appeal to the Rose-growing public; and, although one may assent to the opinion of our ohampion amateur, that this has been a most disappointing season, we may at the same time add, that it was a far better one than the mournful complaints of growers after the hard winter, and again after the lengthened drought, had led us to antioipate-some even of thone who drew these pictares ooming out as if nothing extraordinary had happened to them.

## The Phyllozera <br> A mbeting of the Syndicate of <br> Law. Belgian hortioultarists, and one of special importanoe, is convened at

 the Casino, Ghent, on Angust 4, at 11 A.m., to consider, at the request of the Belgian Government, the question of the desirability of revising the Berne Phylloxera Convention. We have, from the first, protested against the fatility of these regulations, and against the wholly gratuitous injury which has been inflicted, not only on commercial hortioulturists, bat upon amatears desirous of transmitting plants from one country to another.The Italian government has at length proposed a meeting of the nationalities concerned in the Treaty of Berne with a view to obtain the entire abrogation of so much of the oonvention as prevents the circulation of plants other than Vines. This subjeot was informally discussed by as with some of the Italian authorities so long ago as the Florence Botanical Congress, when the absurdity of the regulations was pointed out. This country has never assented to the convention, bat our nurserymen have had, like others, to put up with the verations and impediments uselessly oreated by that treaty. It is surely time they took steps to support their bretbren of Belgiam and Italy. We may fairly look to the authorities at Kew also to lend their potent aid in this mstter.

The generation of botanists that

Charliss Cardale babiegтоу. otany-will -Will his name and his work forgotten. The state of botanical teaching is wonderfully different from what it was when Babington was in his prime, but he retained his Professorship at Cambridge under these altered circumstanoes till his death on the 22nd inst. in his 87 th year, though he had, we believe, long ceased to take any active part in the daties of his offioe. He was of the stock of the Leicestershire Babingtons, but was born at Ludlow in 1808, and educated at St. John's College, Cambridge, where he passed the greater part of his life, aseuming the duties of his Professorship on the death of Profeseor Hrnslow in 1861.

He is best known by his Manual of British Botany, the value of which as a field manual is attested by the fact that it ran through eight or nine editions. In it the "characters" are sharply contrasted, and special prominence is given to those points of most interest and value for clansificatory purposes. Another and most
important oharacteristio of the book is the strenuous effort made to ${ }^{\text {Keep *in }}$ line with the great European floras of Koci and others, and to harmonise the nomenclature of British plants with that in use on the Continent. Babington was very keen in disoriminating slight differences, the value of which has been greatly enhanced since the general acceptance of Darwinian views of evolution. His tendencies in this direction led to his being classed among the "splitters" rather than the "lumpers," by a former generation less appreciative of the significanoe of minute differenoes. Babington's powers of analysis were also prominently shown in his study of British Brambles. He spared no pains in his efforts to disentangle the complications that arise in the stady of these protean plants, and reduce ohaos to order. He seems to have done this parely from the point of view of a systematic botanist without ooncerning himself greatly with the philosophioal deduotions whioh might be drawn from suoh materials. To aid in the disorimination of these plants, Babington oansed a large number of them to be oultivated in the Cambridge Botanic Garden. Not only was he a foremost authority on British plants, but he collected in Iceland and published his researches into the flora of that island. In addition, he was well known as an antiquary, and was one of the very oldest of our own contributors, though, of late years, we have had little ir nothing from his pen. In social and private life, Professor Babington was one of the best and most amiable of men.

The Turnip-Fly.-From the Board of Agriculture we have received a pamphlet treating of the Tarnip-lly or lea (Phyllotreta nemorum), and of the best methode of coping with the peat. This ly is really a beetle, amall in size, but capable, when found in numbers, of destroying rapidy entire crops of Tarnips or Swedes. In view of this, and of the enormous expense entailed by lossen on so large a scale, many methods of preventing the acourge are suggented. Amonget these are the sowing of Tarnipseed on a "stale farrow;" selecting vigorous, healthy seed ; extirpating anch weeds an Charlock and other Crucifers which encourage the beetles; and, in some cases, wowing Mastard with the other need, an the former, germinating first, is devoured by them in preference. Droaght is found to be more favoarable to the beetle than in moisture of atmosphere and soil. Where the Tarnip-fly already exitsts, the proposed remedien are drentinga of noot, lime, paraffin, and other detergenta ; lightly rolling the ground, or pushing over it a "light wide framework apon wheels with well-tarred boards fastened upon it, ao as to come juat over the Tarnip planta;" in this case the beetlea, being dieturbed, jump into the tar, upon which they soon accumalate in masees, and can be acraped off, and the boards re-tarred.
tomato Duke of Yoak.-Mearra. Fellowba \& Ryder of Orpington have aubmitted specimens of new Tomato ander this name. The frait is of medium or large size, handsome, aymmetrical, of rich crimson-red colour, deep flesh, and full, alightly acid flavour. We presame the habit is good, and that it is a good cropper, an Mesirn. Fillows \& Ryder inform ua they have eeventy houses devoted to its cultivation. While there are so many Tomatos of good quality, it is difficult to exprese an opinion, but in this case we have no henitation in aaying that, judging frum the sample sent to as, this is a first-claws variety. Its merite wore recognived by the award of a Firrt-clase Certificate from the Royal Horticultural Society on Tuenday last.
"Pharmaceutical journal"-Thin journal hat always been remarkable for ite efforte to forward the scientific development of Pharmacy. Ite weekly nambers sapply a condensed but accurate ammary of acientific work in chemistry and botany. Quite recently a fourth serien has been commenced, and
the size of the journal increased to quarto size. Everyone interested in sach mattera mant aympathise with the unceasing endeavours on the part of the Society to place pharmacy on a proper beair.

Scottish horticultural Abbociation.-A paper was read before the Ansociation on the 2ad inst., by Mr. M. Chapyan, Esater Daddingaton, Portobello, on the "Gardens of Antiquity." Mr. Cespmas paneed in review the gardens of Babylon, Egypt, Persia, Greece, and pointed out the principal causea of the great progrens of horticulture in modern timen.

St. John's Horticultural Show.-The St. John's (Ipawich) Cottagera and Gardenern' Horticaltaral Society held their annaal show of flowers, fruit, and regetables on Wedneaday, Jaly 17, in the grounde of Mr. K. Bond (one of the vice-presidente), who had kindly placed them at the disposal of the Committee. In comparison with previoun years, the exhibite were well up to the average, bat, owing to the time of the year, were perhap not quite no numerous. The prize list wa divided into three clames-cottagera, gardeners, and amatenrs-and in addition, numeroas special prizen were offered.

The Jerbey Potato Crop.-The winter of 1894-95 was, we learn from a correnpondent, keenly felt in the Channel Ioland, and for the third year in sacceasion a large quantity of reed Potatom was deatroyed by the front. The lone of quite a fourth part of their Potato aead by this caune was nothing less than a calamity to the Jerney farmers. Moreover, the frost was so protracted, that planting was delayed for quite a month beyond the uaual time. In the early dietricte, planting did not commence until the aecond week in March, whereas at the ame date in 1894 the young plants were showing well above the ground. The growth this year was alao slower owing to the greater coldness of the aill; and it was a general complaint that the Potato field showed various "miases," oxing, no doabt, to the planting of weed which had been injared by the froat, and which failed to germinate. The outlook from the firat was therefore far from promising, and continued dry weather threatened general disatter. The early diatricts, an a matter of fact, fared very poorly ; their yield was extremely light, and only for a very few weeks did prices continue at all remanerative. On the heavy lands, on the other hand, the tubern benefited greatly from a downpour on Whit-Sanday, and a heary crop made amends, to some extent, for bad returna. Very soon, however, after the commencement of the English new Potato meason, price in Jerney fell to a ruinons figare. It it estimated that the value of the Potato exported from Jeraey has this year not exceeded $£ 300,000$, whereas it reached almost $£ 500,000$ in 1894.

Clove Carnationa, Stockr, and Zinniab in the Embankment Gardenb, Charing Cross.-The firat of thene have thoroughly established their fame here an hardy town flowert, flouriohing in the midat of amoke. Manses of them in flower are pictures of vigorous health now in thene gardena, and their handtome and fragrant flowers cannot fail to evoke warm admiration. The Stocks are even more charming as bedding planta, their fine mawive baild and great floriferoumens, added to the variety of colour and fragrance, making them moat denirable aubjecta, especially when planted in good numbers together. The dwarf atrain of Zinnia elegans afford quantities of brilliant, telling shades of colour ; they are, moreover, very lasting, if not permitted to bear weed.
horticultural Meeting at Ghent.-At the Ghent meeting on Jaly 9 , the following awards were made:-Certificaton of Merit par acclamation, to M. Jours Hre, for twenty apecimens of Cattioya Mondeli, Mowize and gigat, all choice varieties, notable for the size aud coloaring of their flowera; to M. Kyyla, for Pheenix humilis, an excellent variety of P. eenegalenais, leaves light bluish, a good market plant if eoede of it could be imported; to M. Joles Hxe, for Cattleya Arnoldiana $\times$, a fine hybrid botween Lelia purpurata anã Cattleya

Waracewiczi, lately obtained by Mentr. Sander. Certificates of Merit (à l'unanimité) were allotted to M. Jouss Hye for Cypripedium Youngi, which has long petals, quite covered with preat black apots, exactly resembling those of C . Veitchi, whence this fine hybrid was raised; to M. Pynaert for a hybrid Cypripediam between C. Stonei and Spicerianam, the parentage was plainly shown, the new acquivition is very free-flowering, and easy of cultivation. Certifcates of Merit were given to M. L. De Smet Devivier, for Pteris longifolia, Marildii, the fronds elegantly cat, the colour very diatinct from that of other Ferns, a noteworthy variety for growing on a large scale ; to M. Jotes Hyz for Odontoglossam Wilkeanum ; to M. Petrice for Echmes falgens major, a seedling from the old and popalar Æchmea falgens, bat the bracta are mach larger than in the type, and the colouring is brighter ; to M. Peracer, also, for Tillandsia Sieboldiana, a variety atill very rare, and remarkable for its fine branching raceme covered with rosy-blue flowers or bracta. Certificates for Cultivation were awarded to M. Joles de Coce for Angrecum sesquipedale with twenty flowera and buds; to M. Jules Hye for Cattleya Monsize var. alba Wagneri, bearing twelve well-expanded flower: to M. L. De Smet-Duvivier for Promeræa citrina with very numeroar, mall, golden yellow flowera ; to M. Szewezir for Saintpaulia ionantha, with fifty lovely blue flowera; to M. Pynaert, for Cienkowakia (Kæmpferia) Kirki, an intereating greenhouse plant, the flowers anfortanately are ephemeral, bat recall in aize, form, and colouring thone of the beautifal Miltonia vexillaria. A Certificate for good cultivation was allotted to M . $\mathrm{De}_{\mathrm{E}}$ Sust-Duvivise, for a aplendid apecimen of Adiantum Laddemannianum, a variety reputed to be very difficalt to cultivate, bat this example was a strong and fine plant, with a hundred characteriatic and joung fronds. Thunia Marshallisna may also be mentioned, with twelve well-opened white flowera and thrse imported apecimens of Cypripedinm Cartisin, quite dintinct varietiey, of which the one named magnificum is the mont noteworthy. Ch. de B.

Potatos Cultivated in Jadoo Fibre.We have been allowed to wee some Potato tabers and tops which were grown in Colonel Trowson's Jadoo Fibre. Without giving an opinion on the naefulness or otherwise of the fibre named as medium for growing Potator, we are atill enabled to allege that the Potato had a nice clean appearance, free from wartiness and scabbinens, and they were weighty for their size.

Conatantine Flower Show.-We learn from the Western Mercury that amidat the duat and din of politics in the Truro-Helaton Divison, Conutantine Flower Show came as a welcome relief on Wednenday, the 17 th inst. The attendance was large, though the dimensions of the show were on this occasion cartailed by the excluaion of a poaltry department. During an existence of five years the Society has done much to promote interent in horticulture in the district it embracen, and this year's dipplay is each section was worthy of high
encomiams.

Cut Flowers. - An Anociation has been formed in Holland to endeavoar to put a stop to the exportation of flowera cat from balbe grown in that country. As this custom seriously interferea with the alle of cut flowere and bulbs in the London and provincial markets, it is felt by many of the principal Eaglish growers and bulb merchants that the time hae arrived when stops should be taken to suppress this syatem by supporting the Datch Association. A meeting will be beld at the Hummum': Hotel, Covent Garden, on Friday next, July 26 , at 8 p.m. C. H. M. A. Acdidson, Hox,
Sec. (pro tem.)

National horticultural Society of France. - We noticed, asys our Paris correspondent, at the last meeting of the Orchid cocomittee a new and interesting Stanhopea raised from seed. Hybrid

Stanhopean are atill extremely scarce. Up to the present we have heard only of Stanhopea Spindleriana, raised by Mr. Webeb, gardener to Mr. Spindler, Berlin (S. oculata $\times$ S. tigrina). The new gain is a cross between S. insignis (Frost), and S. ocalata (Lindley), and was shown by the fortanate raiser, Mr. Mantin, president of the committee, at Oivet, Orleana. This plant, S. Bellserensis $\times$ (Mantin), is exactly intermadiate between its two parents; the flower is pale yellow atriped with brown. The fertiliation took place in April, 1880, and the seed-pod ripened in April, 1889; the first Hower opened June, 1891 ; three plantu baving already flowered are alike. S. Bellaerens:s $\times$ obtained a First-


Univerbity extension College, Reading.The awarding examiners in the Agricultaral Examinations held under the authority of the 0 ford and Reading Joint Committee have inaned the following pass list: Certificate in Agricaltare, John Francis Adams; Dairy Teacher's Certificate, Jane Foater; Diploma in Agricaltare, first year's examination, passed in all subjecte, Thomas Edward Gunter, Laston Price Richard, and Charles William Thorp; passed in all subjecta except biology, Clande Reginald Powell; paneed in, all sabjects except chemistry and physics, Edmard, Thomas Brown; passed in biology and geolog. Eric Dowson; passed in geology, Clement Hagh Weston Malet. The following were the examinera: -Profensor E. B. Poulton, F.R.S.; Professor A. H. Green, F.R.S. ; Mr. D. A. Gilchrist, B.Sc.; Mr. A. F. M. Drace, Mr. W. A. Glasson, M.A. ; Profenor J. W. Axe, Mr. E. Brown, Mr. W. W. Fisher, M.A.; and Mr. H. N. Dickson.

## CORRIDOR AT MR. W. BULL'S <br> NURSERY, KING'S ROAD, CHELSEA.

[Sge Supplementary Illustration.]
Those of our readers who for reasong of businem or pleasure have ever visited Mr. Bull's establishment for the sale of new plante, will have remarked the tastefuily constructed range of buildinga that sirts the King's Road. This block consists of a large central show-house well adapted for tree Feran, Pa'ms, Cycads, and similar plants grown chielly for the beanty of their leaves and fronds. It was, homever not bailt for any such purpose, being intended by Messra. Weeks, the original owners and conatructors, in a vinery, in which in great variety of Grapevines were to be cultivated, the fruit being sold in the London market. This was many years ago, in the infancy of commercial Grape growing, long antecedent to the extensive culture of the Grape at we see it now at Rochford's, Ladd's, and elsewhere.
We may be sure it did not remain a vinery aftor coming into the posseasion of Mr. Bull-he had other and more profitable uses for so large a house.
The wings of the range consist of offices and two small lean-to plant houses.
In the rear are a number of apan-roofed housen, in the longest and wident of which Mr. Bull diuplegs in the height of the flowering season a wonderful array of rare and beantitul Orchids. Visitors to this part of the nursery mast needs pass through the large glass house that forms the subject of our illustration, and will have noticed, perhaps only carsorily, the fine species of plants with which it is maily filled, and that give it itm appearance of tropical luxariance.
Near the entrance from the street is a pair of Encephalartos Vroomi of great size, second only to some at Kew. Encephalartos csffra is alro a fine plant. Some specimens of Cycas revoluta have stems two to three feet in height, and perfect crowns of deep green fronde. C. circinalis it found in splendid examples; and the door is fanked by some majestic Draceeal australin of which there are many examples in other parta of the houne. Specimens of the broad-leaved D. a. lineata also figure near the door; it is a very desirable variety for the cool conservatory. The more prominent Palms consist of the gracefal Seaforthia elegans ; S. robusta (Rhopalotstlit Baueri); Archontophoenix Alexandrw, a beantiful and usefal cool hoase species. Arecs sapida, specimens with stem three feet high, and leaves measuring 10 feet in length; Pherix intermedia, P. reclimata and P. rupicola, a mout graceful apecieu. A Chamærops excelas hat a height of 16 feet, and a Corypha australis is almont equally tall. Some fine apecimens of Araucaris excelan were noted; almo Catakidozamia Hopei, a noble looking species. Thin by no mean completes the list of Cycads and palms, but it will enable the reader to form an idea of the larger plants in the houte. Of tree Ferns we remarked apecimens of Dickoonie antarctica, the hardieat apecies, with tall menth
which, together with the fine healthy crown of frond, have a total height of 25 feet. Cyathea Smithi, a beautifal Fern, about 10 feet high.
Two admirable pecimen-probably Cyatheas, which came from the Sandwich Islands, have a rachin covered with a thick brown tomentum, and rachim respectively 2 and 4 feet in height.
The remainder of the plants on the floor of the house consist of smaller furnishing specimen of Aspidistra larida, greenhouse Ferns. Aralias, \&c. Hidden from view at the sides of the house are glans frames filled with Trichomanes and Todeas, including T. Moorei, named after Moore of the Sydney Botanic Gardens; a very attractive filmy from Lord Howe's Island; also T. auperbs, an introduction of $\mathrm{Mr}_{\text {。 }}$ Ball's twenty-five years ago. Those perton who are interested in quaint-looking Cycadaceons plants would find here many plants not to be found in any other nursery in the country, and amongut them an ancient apecimen of Ceratozamia fusco-viridis, a Mexican ppecies introduced about twenty jears ago.


Fig. 21.-busbes of the spinelbss goosebrbry.

## A SPINELESS GOOSEBERRY.

The plants shown in the accompanying illustrations (figs. 20, 21), were exhibited by MM. Letelletier, of Caen, before the Frait Committee on Taesday lant. They are mpineleas varietie obtained from weed. The firat apinelens Gooneberry, according to the Reance Horticole, 1892, p. 180, was obtained an a chance seedling by M. Billard about 1860. About 1884, M. Ed. Lefort sowed the seeds of this variety, from which he obtained a race of spineles varieties, geveral of which are deacribed in the Revue Horticole as above cited. The variety we figure is a dwarf form, very productive, and with the fruit of good flavour. It is the form dencribed and figared by M. Carrière as Madame Edouard Lefort. The varieties are grafted apon Ribes aureum, but the scions soon becomefree. The advantagen of a race of apinelens Gooneberrien need no pointing out.

## Home Correspondenoe.

droberas in scotland.-Mr. Kelly's note on the Sundew ( $p .74$ ) reminds me of the time I was at Attedale, Loch Carron, Rost-shire, being then with the late Lady Brasney. As it was my first viait to the Highlande, the different subjecti growing on the
mountains and on the banks of the barns had an attraction for me. It was there on the monatainside that I saw the Sundews growing wild, and I was so interested in them, not having aeen them before in the wild atate, that the first night her ladyship arrived I dressed the dinner-table with Drosera rotandifolia and D. longifolia, which I found growing together with beatiful coloured clampa of sphagnum-mos. J. Barnard, Mostyn Hall Gardens, Mostyn, N.W.

RAgpberries. - Although the soil of Dover Honse Gardens is light and auceptible to drought, yet must Mr. McLeod have the highest commendation for the aplendid crop of superlative Rapberry, which I aw there a few daye aince. The several row of plants running acrose a broad garden aquare, were all trained to wire trellises, they were of an average from 6 to 7 feet in height, the canes having been only alightly shortened, and they hang with very fine frait from top to the bottom. Superlative is so auperb a variety, that it is quite displacing all others where caltivation is good. As the soil at Dover Houne in natarally so light and porona, as to render Rasperrie fruitfol, it is the rale to fork out a
early at the Aohleaf Kidney. The haulm, being amaller and weaker than that of the trae Aahleaf, led me to sapcose that it would be an even poorer cropper than that variety. which proved, on lidting the crop, to be correct. The taber were about of a size, nice-looking, and fit for the best table, but of not by a long way 0 good an regarde flavour as that prince of Potatos, the Ashleaf. I am anable to und + ratand why anyone should cultivate anch a poor cropping variety, when there is nothing in point of flavour to recommend it. My first trial with it was also my lat; atill, there are cultivators whose verdict differ: from mine, and who say that it is the bent variety that they have. I wonder if their's is the true Mona's Pride, or a variety that merely beara a resemblance to that much raunted Potato. The tuber of the true variety of Mons's Pride is very mach borter in ita longer diameter than the true Ashleaf Kidney or Marjolin of the Freach, being sometimes almost round and lat, and there is no awelling about the eje, as is nearly always met with in the Ashleaf Kidney. With regard to the preparation of early varieties of Potato for early cropping, it may not be withoat ase to mention the practice of the Parisian cultivators. They arrange the tubers eje uppermost as we do on wicker acreens, and keep them in a dry frost-proof place until they are planted. When the time for planting in the open ground arrive (April), the acreens are carried with the tubere apon them on to the groand to be planted, and the tabers are taken from them one by one and planted in the hole or furrows made to receive them. It is not asserted that this is a better method than our own, but at least it hae the merit of being a very handy one for cultivators of large areas of Potator. Moreover, onier are cheaper than boards, of which bozes are made. Mona's Pride Potato gained the 1at prize at the show of the Mancheater and Liverpool Agricultaral Society, held at Birkenhead in October. 1863, and the lat prize at the County Kildare Horticultural Exhibition amme year. It was raised by Mr. Rutledge, Douglan, Isle of Man. $F_{0} \cdot M . F_{\text {. }}$

Referring to mome criticism, a few week: ago, on my reference to the quality of the old Mona' Pride Potato, there muat, of course, be local varia tions. I only called attention to a variety which, in this dietrict, eppears to be the beat of all the earlies, both in crop and quality. T. Fletcher, Grappenhall. Cheshire.

GENTIANA PHLOGIFOLIA,-This is a plant to be recommended to gardenera as being one of the few Gentians which are both ornamental and eapily cultivated. It in a native of the Carpathian Monntains, and owe its name to the anpposed reeemblance of ite narrow lanceolate leaves to those of tome of the herbaceous Phloxes. It is perennial and long-lived. A plant which has remained six or aeven years where I first put it looks no older than it did five years ago, but has about a dozen divaricate stem a foot long, with numeroas terminal ambelp, which will take two montha to flower out, and several axillary amaller umbela, wo that each stem has in all thirty or forty flowers and buda. The flowern are bright blue, nearly an large an those of $G$. eeptemfida, but the stem: are lem lealy. C. Wolley Dod, Edge Hall, Malpas.

MAIZE AND BLACK CURRANTB. - An a matter of local pecaliarities, I may mention that we have here grown Maize over 11 feet high, with cobs $\frac{1}{2} \mathrm{lb}$. Weight each, a record not easy to beat out of Cornwall, and yet many things which grow like weed in other placen, die out with un. What is popularly known an the "bob" in black Currant has been a peat here for many years; we have had to burn all our trees, and import others from the non-infeated diatricta; after all the trouble and expente, I now hear of places where it ia disappearing, or has diappeared entirely. Is this good thing purely local, or is the pent generally dying out ? Thos. Fletcher, Grappenhall, Cheshire. [We fear not.]

THE WATERINQ OF DOQ ROBES OR BRIARB FOR Budding - From almost every quarter the cry grows londer, that the Briars die. And it is not alone or chiefly those that were planted last year. Bat thb death seem even more prevalent among two-year-old plantation, or Briars that mised taking the bud latt eason. These old Briars are almont invariably the atrongent, and this last phrase being interpreted mean the softent wooded and the fallent of crude wap. And euch fat and full-fed tisue, whether of rosenood, froit trees, or aught else, is always the firt victim to be atricken down, severely injured, or killed by front. The majority of Bfiars are exceptionally
late this year owing to heat and lack of rain, and the shoota of many of them to remain too ahort and weak to be fit for badding. There is only one effectual remedy for this, let them be heavily watered, soaking the woil at their roote with riverwater, sewage, or house-alopw, failing heavy raina. I know a great many romarians dread water more than drought among their Rises. I met one auch to-day, who feared that none of his Briars would reach this season, and who aimply returned the aceptic's amilo at my advice of soak them through. Neither need we be much surprised at the slender faith of eo many rocarians in the watering of either Briart or Romes. The work of watering has been so ahamefully scamped in moss cases as to warrant the common verdict that it does more harm than good. Sarface apriakling do so, without doubso Bat wasking of sewage, slops, and soft-water, soon stimulate Briara into budding condition, and have helped many winning bloome with firat prize atand. Rose.
peas and poppies in ruseia.-In Hapgood's Rusian Rambles, p. 115, reference is made to a variety of Pea growing nearly 7 feet high, and producing poda 7 inches long and 3 inchen wide; and of "doable Poppies 6 to 7 feet high, with flowern the size of Presnien, while the pod of the ningle Poppien were 9 inches in circataference." It anything known of thene varieties in England? Thos. Fletcher, Grappenhall.

## Law Notes.

## RE FREDERICK PENDLE.

At the Ipwwich Court of Bankraptcy, held on Thuraday, the 18th inst., before Mr. B. P. Grimaey, Regintrar, the above appeared for pablic examination, The atatement of the debtor (nurweryman, meedsman, and farmer, of Rendham) showed a deficiency of ${ }^{\text {el }} 1490 \mathrm{os} .3 a_{0}$, due to anvecured creditora. In reply to the Official Receiver, Mr. F. Messent, the debtor anid that he was at one time an apprentice to the late Dake of Hamilton's gardener at Easton, and that he afterwarde went home to manage the nursery at Rendham for his father, who was in failing health. Hin father died in 1889, and he carried on the business an one of the executors until April, 1894. The member of the family then arranged that the property should be old; it wat pat up to pablicauction at Sexmundham, and bought by his wife. One of the condition of sale wae that the narsery atock ahould be taken at valuation; and in order to meet thit charge his wife mortgaged the property at the time the bought it. He (the debtor) had nothing to do with this tranaaction, and all he did afterwards wan to manage the property on behalf of his wife. People with whom they dealt, he said, knew the position of affairs, although the invoice was sometimes made out to him, and sometimes to his wife. Finding himaelf in difficulties, the debtor fell into the hande of the advertiaing money-lenders. He borrowed $£ 50$ from the Bedfordihire Loan Com pany at 60 per cent. per annum, to be repaid in monthly instalmente of $£ 43.4 d_{\text {, and the balance in }}$ the following January. An security, he gave a bill of sale on hie goods, or his wife's qoods, although his wife had nothing to do with sigaing it. Four inetalments, amounting to $£ 1613 s .4 d$, had been paid When he fled his petition, and at soon ae the Loan Company heard of his failare they put a man in
poesension, and his goods were mold by auction. The
Loan Company get ant and Loan Company got a nett sum of $£ 5 \overline{6}$ in satisfaction of their claim, and full official chargen were made in reapect of the elling-up tranaction. The Registrar of course, be paid, bat that in an incharges maat, of course, be paid, but that in an intance of this
kind the sheriff's officer, who was employed, had acted quite in a non-official capacity. With reference to the case generally, the Registrar wiid it weemed to be queationable whether the wife of the debtor, and
not the debtor himelf, wam really the responeible purty. More than that, the man had no right to give a bill of anle to the Loan Company on his wife's goods, to that the authority under which her goods
were sold might really be invalid.

The Official Receiver invalid.
pozed this quention had nothing to do with he mp. the Registrar moented.
The examination wue adjourned. Eantern Daily
Press, $19 t h$ inet.

## SOCIETIES.

## ROFAL HORTICOLTURAL.

July 23. - The anal fortnightly meeting of the Sociaty wa held on the above date in the Drill Hall
at Westminster, and the number of exhibita though fewer than we have become accustomed to see at the Spring Meetings was coniderable.
Orchids formed a leas conspicuons feature in regard to quantity than asual, but hardy flowers were again exhbited largely, and there were extensive collections of Sweet Peas. New and rare planta were not wanting, and Firat-class Certificates were awarded by each Committee.
Frait exhibite included large collections of Gooseberries and other miscel'aneous aubjects.

## Floral Committee.

Present: W. Marahall, Esq., in the chair, and Menme. J. Framer, Owen Thomas, H. B. May, H. Herbat, R. Dasn, R. Ofen, G. Stevens, C. J. Salter, W. Bain, J. T. Bennett Por J. D. Pawle, H. J. Jonee,
C. E. Shea, Jas. Walker, H. Cannell, L. Spath, C, C. E. Shea, Jas. Walker, H. Cannell, 'L. Spath, C. Noble, and G. Paul.
A large and comprehensive collection of hardy and perennial flowers was shown by Mr. M. Pritceard, Christchurch, Hants. Conspicuous among these were capital bunches of Potentilla Wm. Rollinson, and the pretty, thoagh less showy, P. Hopwoodiana; large bunches of herbaceous Phlox were good; also several varieties of Perennial Sunflower, Montbretia crocosmixeflora, and others. Platycodon grandiflorum, with its large single blue flowers, was effective; and Scabiosa caucasics, and several Centaureas, were noticed, as was also a remarkably well-fruited spray of sambucas racemosus (Scarletberried Elder) (Silver Bankaian Medal).
Another excellent exhibit of out-of-door flowers was from Messrs. Paul \& Son, The Old Nurseries, Cheshunt. This included flowering sprays of the purple-flowering Asclepiss Cornuti, a fine bunch of Bocconia cordsta, the white Lysimachia clethoides, a good bunch of Heliopsis scabra, large, an orange-coloured variety of great effect in borders; and Eryngium amethystinum was well shown, and some first-rate variaties of herbaceous Phlox, \&c. (Silver Benkeian Medal).
Mesors. CANsELL \& Sons, Swanley, Kent, exhibited a collection of Carnations in light bunches, and representing con-
aiderable variety, many of which were new siderable variety, many of which were new seedlings. Cannell's Scarlat is an especially bright one, Duchess of Portland is a very pretty rose and white-coloured Carnation, and Haidée Falbe, a white flower flaked with rose. Mesers. CANNELL had also some capital sprays of Canne Queen Charlotte (Silver Banksian Medal).
Mesars. R. Wallace \& Co., Colchester, again exhibited a collection of sprays of Lilies. Conspicuous amongst the collection was Liliun chalcedonicum, the very bright sealing-wax coloured species. A First-class Certificate was awarded to L. odorum (L. japonicum Colchesteri). This is a species from Chins, much in the way of L . japonicum Brownii, for which it has been frequently mistaken. The flower is rather larger and thicker than Brownii, has larger anthors, and the interior is cream-coloured instead of white. L. dalmaticura Catani, L. Thunbergianum, Calochortus lutens, C. 1. concolor, C Weedii, figured in Gardeners' Chronicle, August 18, 1894, 1894, fig. 21, were also shown (\$ilver Banksian Medal).
A group of well-grown Achimenes in pots and pans was ghown by Me. W. C. WAIRER, Esq., Percy Lodge, Winchmore Mill, London, N. (gr., Mr. Geo. Craga) (Bronze Bankeian Medal).
J. T. Bewnetr PoE, Reqgoo Holmwood, Cheshant, exhibited three splendidly-grown plants of Campanuls Vidalii. This is a bushy species, and the plants shown had six "or, seven spikes each, the height of which were about 4 feet. Fourteen to seventeen flowers are prod uced upon each spike. Flowers are pendent, about $1 \frac{1}{2}$ inch long, white, with orangecoloured mone in the interior of base (see fig. 19, p. 93). Three vary fine plants of Streptosolen Jamesoni were thown, which had been lifted from the open ground, and several plants of Myrtus communis var. boetica. Violas in pots and sprays of good quality were exhibited by Mr. W. BAxTER, Florist, Woking. Mesers. Paul \& Sor, Cheshunt, exhibited plants in flower of Clematis, Viticolla $\times$ Uniflora, a lilac-coloured variety, and a large plant of the mmall leaved C. flammula rubra marginata. The flowers are also smaall, purple in colour, but the base and centre of each petal ailver. Cannas Comet, Souvenir de Crory, and Mrs. Faudell Phillips were shown in praineworthy atyle by Messrs. Paul. Sweet Peas were
very largely exhibited at this very largely exhibited at this meeting, a collection of very great attractiveness boing staged by Mr. HENRY RCK Ford, Wem, Salop, and others; by The Brockhampton Nurseries, Mr. W. E. Tidy (Manager), and by Messrs, Dobine $\&$ Co., Rothesay, N. B., and Orpington, Kent. Mr. ECKFORD's collection was extensive, and included upwards of 50 bunches. Awards of merit were recommended to Lady Grieel Hamilton, an excellent heliotrope or pale lilac-coloured variety Blanche Burpee. a large flow er of pure white; and Mars, a variety with extra large flowers of rosy purple, very bright and effective. Particularly noticeable amongst a whole lot of
 Venos, flesh tinted with brouze ; Peach Blossona, o soft pink-
coloured flower; Prince Edward of York, crimeon coloured flower; Prince Edwand of Yort, crimson and roee;
Stanley, very dufh purple, and many others (Eilver Flore

Medal). The exhibit from the Brockhampton Nurseries mas
staged amid Maidenhair Ferns, and ivcluded a large of bunches, rather thickly disp sed (Bronze alarge number of bunches, rather thickly disp ssed (Bronze Flora Medal),
Messre. Dobsie had about fifty bunches of bright flowers in Messrs. Dobbie had about fifty bunches of bright flowers in variety (Bronze Flora Medal)
Messrs. PEED \& SOYs, Norwood Road. West Norwood, staged a group of very choice Gloxinias, interspersed with Ferns, \&e. (Bronze Flora Medal)
Messrs. JNo. Laing \&o Sons, Forest Hill, London, S.L, exhibited four large-flowered double Begonias: Mra, Peak, rose; and Mrs. W. J. Bilney, light apncot,
Mr. C. Herrin, gr. to Lady Fortescue, Dropmore, Maidenhead, showed a bunch of a border Carnation named Dropmore Clove, a good dark bloom with non-splitting calyx. 4 Finth class Certificate was awarded to Cardaus eriophorus,
species of Thistle, also shown by Lady Fortescue. This species of Thistle, also shown by Lady Fortescue. This
plant has a very ornamental character, its ohief attrac tion being the large woolly heads that follow the purple species.
From Mr. F. W. Moore, Royal Botanic Garden, Glasnerin, were sprays of Agapanthus minor and A. Mooreana, Crinum Powelli, C. P. alba, and C. yemense, all from the open air. Messrs. Jas. Veltch \& Sons, King's Road, Chelsea, showed
a pretty little groap of their Rhododendron javanico-jasminiflorum hybrids, nice, dwarf, well-flowered plants ; and were a warded a First-class Certificate for Davallia tenuifolia Burkei from New Guinea. This is a very elegant variety, and the fronds are pendent as soon as made. Fora basket it should bs
Sery suitable and pretty in the stove (Silver Banksian Meda). sir Trevor Lawbewce, Bart., Burford, Dorking (gro, Mr. Bain, showed some sprays of Pentstemon hybridus grandiforms from seed sown on January 15, 1895. The blooms and apmys were alike magnificent, and an $\Delta$ ward of Merit was recom-
mended to the strain. Sprays of Salpigloseis in variety, and of excellent merit, were also shown, and a spray of Gladiolns Dutreuil de Rhine was recommended an Award of Merit. The blooms of this were of remarkable size, salmon-scarlet in colour marked slightly with silver.
Mesars. WM. Cutbusi \& Sons, Highgate Nurseries, London, showed some very fine Cockscombs named Cutbush's Giant; and G. A. Fablini, Esq, Forest Hill, exhibited some uberos. rooted Begonias.
Messrs. Webb \& Brand, Saffron Walden, were awarded a Bronze Banksian Medal for fine heads of excellent doublo Hollyhocks; and Messers. SAYDER \& CO., St. Albans, exhibited ane foliage Begonia named Duke of York.
Messits. Vettcie Son, Chelsea, showed sprays of Paria macroetachya, and a collection of Nympheea blooms. A Fintr Clase Certiticate was awarded to N. Marliacea chromatella, and Awards of Merit to rose-coloured varieties of No odorati and N . Leydekerii.
Messrs. T. CRIPps \& Son, Tunbridge Wells, showed some plants of the rare Mutisis decurrens, sometimes called the climbung Gazania. It has excellent orange-coloured flowers Also some flowering shoots of Schubertia grandiflora (Brooze Banksian Medal).
Mr. R. P. Brotherston, Tyninghame, Prestonkirk, sent some vigorous sprays of Germania Carnations. A large doubleHowered yellow Begonia named Marquis of Londonderry, mes shown by B. Armitage, Esq., Hermitage Place, Nortia, Stockton-on-Tees.

## Orchid Committee.

Present: Harry J. Veitch, Enq., in the chair; and Menarn. Jas. OBrien (Secretary), E. Hill, H. J. Cnapman, Sydney Courtauld, De B. Crawahay, T. B, Haywood, W. H. White, W. H. Protheroe, and H. M, Pollet.
Messris. Jas. Veircie \& Son, Royal Ezotic Nursers, King's Road, Chelsea, exhibited Phalsenopsis $\times$ LuddeViolacea (Luddemanniana $\%$, Violacea 9 ), the latest of
the fine hybrids raised and reared by mr. JoHn SkDEN. the fine hybrids raised and reared by Mr. Jorn SkDEM This beautiful hybrid has the wax-like flowers of $P$ equal. The colour is light rosy-purple with narrow wavy closely-set bars of a darker hue across the sepals and petale. The base of the lip is yellow with some reddish markings, the front lobe bright crimson-purple (First-class Certificate). Messth Vertci also again exhibited their singular Dendrobium porphyrogastrum (Dalhousieanum of, Huttonii if), which, ou this occasion bore eeveral apikes of tour and five fiomers, of a pase pinkish-lilac colour (Award of Murit); and Cypripodium $\times$ Carnusianum (Spicerianum ${ }^{\circ}$ Haynalaianum i), Dendro bium glomeratum and Miltonia verillaria superba.
Sir Trevor Lawrence, Bart., Burford, Dorking (growet, Mr. W. H. White), exhibited Haberaria rhodocheila, a pretty species of the H. militaris clase, but with bright green, unspotted leaves, and clear orange-scarlet labellum. The plants shown exhibited very free growth and profuse flowering qualitien (Botanical Certificate); also the pretty and fragrant Epidendrum alatum.
Mesars. F. SANDER \& Co., St. Albans, staged a nolect group of Orchids, in which ware the rare and aingular Angrecum Eichlerianum, a curious species, with fleshy, flatiy-arranged dark-green leaves and large solitary flowers, bearing somest resemblance to those of A. eburneums; the sepals, petial spar, and base of the lip, is pale green, the broad apienlatio front of the lip pure white (Award of Marit); Dendrobium speciosissimam, for which they obtained a Botanical Certio ficate at the last meetiog, but which on this occosion secured an A ward of Merit: Cypripedium Kimballianum, illustrated in the Gardeners' Chrowicle, Jnne 29, p. 801 ; the pretty flowers, with the side-lobes of the lip and tip of the colum
claret-coloured, the flowers having large orbicular apple-green bracts at the base (Botanical Certificate); Brassia Lewisii, Odontoglossum Lindleyanum rar. Sobralia zantholeuca, Odontoglossam Bictonense album, Batemannia Burtii, Cattleya Gaskelliana, Cook's var.; Cirrhopetalum picturatum, some good forms of Dendrobium Phalrenopsis Schroderianum, D. bracteosum, D. b. album, Miltonia vexillaria, and the fine Thite and fragrant Stanhopea Amesiana (Vote of Thanks)
Messrs. HugF Low \& Co., Clapton, also staged a group of Orchids, in which were Dendrobium speciosissimum, and a very fine form of it, with large white flowers, and orange and red base to the lip, the central yellow keel alko having a red spot at its base (Award of Merit); some profusely-flowered Cattleya Leopoldi, C. Rex, C. Eldorado, C. Granulosa, C. Warscewiczii, Lycaste Rossians, Cypripedium Curtisii, Oncidiam Lanceanum, Miltonia Roezlii, two good forms of Lælio Cam $\times$ Schileriana, the singular Vanda Roeblingiana, \&c (Vote of Thanks.)

## (Vote of Thanks.)

Fred. Handy, Esqo, Tyntesfield, Ashton-on-Mersey (gr. Mr. T. 8tafford), showed Cypripedium Godefroyse leucochilum magnificum, with large yellowish flower blotched with purple and fine specimens, each with many spikes, of Miltonia vexillaria rubella and M. v. superba.
J. T. Gabriel, Req.. Palace Road, Streatham Hill (gr., Mr. (. Rawson), showed Cattleya Rex. Messrs. THos. Cripps \& Son, Tunbridge Wells, staged a group of grandly-flowered Diea grandiflora, exhibiting considerable variation in the colour of the flowers, some being orange-scarlet, and in other the crimson hue prevailed. A Silver Banlsian Medal was the plants were cultivated
F. W. Moore, Esq.. Royal Botanical Gardens, Glasnevin, Dublin, sent Bulbophyllum Lobbii var. Colossus; the pretty Maxillina Hubechil, with white flowers like a small M, grandi flore, and purple-tipped (Botanical Certificate); Mormode pardinum (Botanical Certificate); Aêrides Lobbii, and Epiden drum paniculatum.
Walter C. Waleker, Esq.. Percy Lodge, Winchmore Hill gro, Mr. G. Cragg), showed the fringed-lipped and fragrant Lelia Digbyana (Firet-class Certificate), and Oypripedium Godefroyæ. W. O. PAREES, Eeq.. Llanberis, Lower Tooting, exhibited an inflorescence of a good form of Cattleya Warsce wiczil with five flowers.
R. I. Measures, Esq., Cambridge Lodge, Camberwell (gr. Mr. H. J. Chapman), sent Maxillaria ochroleuca and Bulbophyllum Sanderianum. J. Forster Alcock, Esq., Exhims, Northchurch, showed Lelio-Cattleya $\times$ Schilleriana. E. H Woodsin, Eeq., St. Nicholas House, Scarborough (gr , Mr Hoghes), showed Lxelia crispa, Woodall's var. ; and G. H.
Rouls, Esq, Bournemouth, sent cut spikes of Grobya Rows, Esq, Bournemouth, sent cut spikes of Grobys nnown as L. Lacasiana, Oncidium olivaceum, and Polystachy species.

## Fruit Committee.

Present: P. Crowley, Eaq., in the chair; and Mesars. R. Hogg, T. Francis Kivers, Jas. Veitch, Geo. Banyard, G. W. Cammins, T. J. Saltmarah, J. Cheal, W. Farr, A. H. Pearnon, W. Bates, J Wright, C. Herrin, A. Dean, G. H. Sage, H Balderson, F. Q. Lane, Geo. Reynolde, G. Norman, and R. Fife.
Mr. K. Ryder, Orpington, Kent, sent twelve dishes of Tomato Dule of York, a amooth fruit, of excellent quality and weight, and the variety was deservedly recommended a Firat class Certificate.
Mr. J. WALKER, nurseryman, Thame, Oxon, exhibited about fifty dishes of Gooseberries, many of them very well worthy of remark for the quality of the fruits (Silver Banksian Medal)
An extensive and excellent collection of Gooseberries was staged by Messrs. Jıs. Vextch \& Sons, King's Road. Chelses. The berries were rather larger than we should have expected this dry season. Of reds were noticod Dan's Mistake, Conquering Hero, Forester, Rough Red, Slaughterman, Industry, Bollin Hall, Keen's Seedling, Ironmonger (a very good one), Early Red Hairy, Warrington, Red Champagne, Falrender Bey, Lancashire Lad, Napoleon le Grand, Highlander, Crown Bob c. Whites included Hebburn Prolific, Stockwell, King John, Surprise, Alms, Green Overall, Green Laurel, Champagne (good), Hedgehog, Pitmaston Greengage, Green Gascoigne, Bright Venas (very geod), Fearless, Rarly Green Hairy, Tra veller, Queen of Trumps, Keepsake, and many others. Most noticeable among yellow fruits were Leveller, Pretty Boy Trumpeter, Rarly Sulphur, Yellowsmith, Golden Lion Trumpeter, Karly Sulphur, Yellowsmith, Golden Lion, Hue and Cry, Champagne, Garibaldi, and many others
There were eighty dishes of Gooseberrios, and a number There were eighty dishes of Gooseberrios, and a numbe
of sprays to show the crop the bu hes have borne Black Grape, Black Naples, and Lee's Black Prolific Currants were shown, and eleven varieties of Bed Currants, and four varieties of White Currants, Cherries included Late Duke, Morello, Tradescant's Heart, and Bohemia; Black Bigarreau Pears, Doyenné d'Ete, Citron des Carmes, and Jargonelle and Apples, White Juneating, Mr. Gladstone, and Early Red Margaret, were shown. Also some fruits of an early Nectarine, Précoce de Croncels, which had been ripened in a house without heat, and in the same house as Lord Napier, which whe not ripe. The fruit is said to have amall Napier, which whe not ripe. The frait is said to have a small
stone, and has not too much acidity (Silver-git Knightian Stone, and has not too much acidity (Silver-gilt Knightian
Mesars, Letelletter ie FiLs, Caen, France, bhowed two plants of a spineles Gooseberry (Vote of Thanks). See p. 101 and fige. 20, 21.
H. DiwFs, Esq.. Edsmonscote House, Castle Hill, Ealing (gr., Mr. Wickenden), showed a large yellow Tomato named Edsmonscote Favourite.
H. P. Si Urgrs, Teq., Givons Grove, Maidenhead (gr., Mr.

Peters), showed a collection of Gooseberries, including twelv varieties

From Mr. A. Gilbert, gr. to the Marquis of Exeter, Burghley Gardens, Stamford, came some very excellent fruits of Walburton Admirable Peach; and half-a-dozen Cucumbers named Metcalf's Ringleader, a cross between Telegraph and Rochford.
Mr. Carmiciael, 14, Pitt Street, Ediaburgh, sent some seedling Strawberries from crosses between Waterloo with British Queen and Erogmore Late Pine.
Col. Archer Houblon, Welford Park, Newbury (gr., Mr. Chas. Ross), sent fruits of a seedling Cherry of considerable promise.
A basket of excellent Grapes, Madresfield Court, was shown by Messrs. W. E. Welis, Hattonhurst, Hounslow (Silver Banksian Medal).
Seedling Melons were shown by Mr. G. DYEE, Stubton Hall Gardens, Newaris; Earl Pepoy, Syon House, Byentford; and from the Royal Gardens, Frogmore, but no Certificate wes warded at this meeting
Messrs. W. W. Jounsow \& Sov Boston, Lincolnshire, exhi bited a collection of Peas in considerable variety, also bine and pods of a new and large fruited Pea named Boston Unrivalled, and a few long-pod Beans (Silver Banksian Medal)

## Lecture on Carnations

In the afternoon a paper entitled "The Carnation in Scotland," by Mr. P. Brotheraton, Tyninghame, was read by Mr. Jno. Weathera (assistant secretary). Mr. Brotheraton, in commencing bil lecture, remarked that the difference in climate in England and Scotland had some effect on Carnations. Varieties that have fall and large flowers in Eagland are apt to become grose in Scotland, and others auch as Germania are very good in Scotland, and are inclined to be thin in England. One of the most important details to observe in the culture of Carnations in Scotland was to layer the plant early and plant them out as anon aney are ready. A fortnight's delay will spoil the remult. Mr. Brotheraton commenced to layer him plants three week: ago, and they have all been completed about a fortnight mince. The soil in which the layer are to be afterwards planted out should be eufficiently rich without adding any manare. Carnations were never benefited by the addition of fresh manare in the soil. They might be fed, however, daring the growing or flowering season by mulching, or by solutions of auperphosphate of lime, nitrate of coda, \&sc. Soot wae also very beneficial. Thinning was as helpful and as astisfactors in regard to Carnation as any other plants, and the lecturer thought he gained by thinning the flowert, grass, and even flower stems. Shallow planting was insisted apon with emphavis. Mr. Brotherston afterwards gave a list of first-clasa varieties of German, French, and English origin. The lectare with these linth will be printed in the Society's Journal.

## NEWMARKET HORTICULTUEAL

July 11.-This Society made a promising atart, with a show on the Athletic Clab ground on the above date. It in some years since the Society has held a show. The rise and progress of many village societies, and especially perhap the great success of the Mildenhall Society-may have had something to do with the decline and fall of the once flourishing Horticultaral Suciety of Newmarket. Be that a it may, it meeting on Thareday lant was very accesaful, and the entire town seemed en fête for the occamion, reminding one of the earlier shows once so common throughout East Anglia, when the horticultural hows formed in each town and village the great event of the year. Committee of aixteen, two secretaries, the general, H. Atkinson, Eeq., and the entries secretary, W. H. Saville, Esq., the Preident, W. M. Calmont, Esq., of Ciovelely Park, and the Vice-President, Sir George Newnes, Bart, constituted a powerful staff of officers. The realt was a crowded tent of horticultural products of good quality, an well as overflowing quantity, arranged in four divisione, viz., one for plants in pote, and cut flowera. Open: one for Amateura, this one inclading vegetables, plants in pots, and cut flowers: a division for cottagers, alno inclading frait, plants, cut flowers, and vegetables; and lantly, a apecial prize claen, the award being made by various donors.
The revival of this society in a rather unfavourable centre for Roses will, doubtless, give a powerful stimulus to their cultivation. Prizes were offered for collections of nix Fuchsins, and several plants of more or less mprit were staged in compe tition. The committee offered good money prizes for collec tions of six varieties of fruit, and these prizea did much to enrich the exhbition, the 1 st prize being taken by Mr. J Burarss ; the 2nd by the Duke of Mowreost ; and the 3rd by Mr. C. Stevens

Among the chief features of the show was the spirited competition for the best group of plants covering an area of 10 feet by 3 feet, for the Committee's prizes, the Duke of Montrose, being lit, Mr. J. Watrs 2 nd , and Mr. J. Hall 3rd. The juiges also gave several extra prizes in this class, and the Committee an extra apecial 1st to Mr. Burgess, gr. to the Rarl collection, not for competition. The tastefuly-arrangod collection, not for competition. The asme exhibitor alzo furnished some excellent specimen plants for the deco ration of the central table, prominent among which was a fine fre:h plant of Araucaria excelss. He alvo showed a fine collection of fruit. Petunias, Cock's-combs, and Gloxinias. Mr. WATTS, of Newrarket, also supplied some fine plante for the decoration of the central table. Mr. Stevens, of Burwell, and others had also special prizes for fine collections of plante in groups.
Among the more notable exhibitors of cut flowers were Mesars. Dawrels, Norwich, who showod a fine collection of twelve sisgle and twelve doubleflowered tuberous-rooted Begoniss, which the judges highly commended.
Fruit and vegetables, considering the droughty season, and the lightness of the land around Newmarket, were good, and there was quite a prodigality of entries in most of the classes. vegetables having a strong lead. Cooked as well as uncooked
Potatos, bread and honey, were well represented, though the Potatos should be judged whilst hot, and with the use of salt or such cooking tests are of little use
Prizes were awarded for the beat kept and cropped gardeas and allotments.
In reference to Potatos, they seemed all sound and good, though smaller than usual on account of the drought. At Ipswich and several other shows the Duke of York has been the favourite new Potato; but this rough-skinned, curiously spotted, favourite kidney, was conspicuous by its absence from Newmarket.

## SCOTTISH PANSY AND VIOLA ASSOCIATION.

## July 17.-The third meeting of this associa

 tion was held on the above date, in the Religiou Institution Rooms, Glangow. There wat the unal attendance of members. Pansies and Violas were not so numerous, but the quality was far euperior to that of any of the former meetings. List of awards:Certificate of Mexit to fancy Pansy The Baron, exhibited by Mr. S. MCKEE, Belfast. First-class Certificates were a warded to the following flowers: to fancy Pansy Mrs. R. Stewart, exhithe following fiowers: to fancy Pansy Mrso R. Stewart, exhiJeannie R. Karr and Sir John Watson, exhibited by Mr. G McPeerson, Avondale; to fancy Pansy Colonel M. R. G Buchanan, exhibited by Mr. ALEXANDER Lister, Rothemay to faney Paney Frank, exhibited by Mr. Johr 8tewart, Led noxtown ; to fancy Pansy Mrs. Wm. Steele. Violas: Stobhil Gem, Nellie, Liz. Barron, and Jessie Pretswell, exhibited by Mr. Johe Smellie, Bueby: to Viola No. B, exhibited by Mr. John durcan, Eife: to Viola Garryowen, exaibited by Mr. J. D. Stuart, Belfast; to Violas No3. 2, b, and 6, exhibited by Mr. Joher Baxter. Daldowie.

## MANCHESTER ROYAL BOTANICAL ROSE SHOW

Juty 20 -The annexe exhibition houne in the Botanic Gurden looked particularly gay with the great wealth of colour furnished by Roses of every description, by variously-coloured doable Begonias, and by a multitude of berbaceous and other border flowers, all so fresh and beautiful.

## Clet Bloons: Open

Many exhibitors had promised to come forward, but the season in some localities has been inauspiciouc, and they put in no appearance on this occasion. The best bloome of seventy two and thirty-six came from Mess.0. HAN wing and tion. The most striking blooms were among light-coloured varieties, Merveille de Lion, Marchioness of Londonderry, varieties, Merveille de Lion, Marchioness of Litiondiam, Her Mujesty, La France, and Danmark. Amaong high-coloure Roses, mention should be made of A. K. Williams, which variety was superb in nearly every stand; Marie Baumann Madame Rhodocanachi, B. Joubert. Horace Vernet, Abe Grand, Pride of Waitham. very charming rony carmine Beauty of Waltham, Mademoiselle Annie Wood, Proppe Langier, Charles Darwin, Prince Arthur, excellent; Duc de Rohan, very fine ; Gustave Piganseau, and a few of a lighter Rohade, such as Madame Kugene Verdier, Mrs. John Laing and Marie Verdier
For eighteen Teas (three trusses) in the trade classes, Messrs. Prior \& sox, Culchoster, were list in both classes. as also with twelve Teas (single trusses). Among the beat blooms in these two classes were Maréchal Niel, Nipheto Eraest Metz, Mons. Cusin, Marie Van Houtte, F. Kruger, La Boule d'Or, Souvenir de S. A. Prince, one of the moe striking Teas in the exhibition; Madame Hoate, Princess of Wales, Etoile de Lyon. The Bride, Madame Lombard, Innocente Pirols, and Catherine Mermet.
In the Colchester stand was a beantiful bloom of Marie Van Houtte, the pintish-margined petals contrasting well with the soft saffron-imbricated petals in the bud.
In the clase for twelve yellows, Mears. Prior were 1at with Maréchal Niel, Mr. Maytocis lat in that for twelve of an


#### Abstract

white: Menars. Harkwess were lot with Soavenir de S. A. Prince, and also in that for twelve crimson Roses with Alfred Colomb, a very styliah bor of blooms.


Amateurs' Competitions.
In the clane for thirty-gix single trusses, Rev. J. H. PemberTON, Romford, with fine flowers, but the foliage showing the efizets of the comb
LindeELL, Hitchin.
In the class for twelve distizct, three trosses each. Mr, Lispeell. was let; Mr. H. V. Machin, Workeop, was 2ad.
For twelve Tee or Noisette Roses, three trusses, Mr. R. W. H. Jacksos, Bedtord, wais 1st.
For twelve Tens or Noisettes, single blooms, Mr. WM. Boyces, For twelve Te
For twelve yellow Boses, Mr. Boyes was lst; for twelve white Roes. Mr. Maceiv was let; and for twelve crimson Roses, Mr. LivpseliL was ist.
District-grown Roses open to residents within 20 miles of Manchester. - the premier lote, particularly of Mr. Cinarles BURGP S8, were quite as good as those in the open classes. For twenty-four diatinct single trueses, for twelvs distinct aingle trasses, and for six distinct single trusses, Mr. CHARLEs Burgers, Plumbey, was list; Mr. Jambs Browr, Heaton
Numery, tieing with Mr. Burgess for the twelve. Mr. T. S. Numery, tieing with Mr. BURGess for
The bent blooms found in the Amateur classes were Earl Dufferin. Countese of Oxford, A. K. Williams, Gabrielle Luizet, Horace Vernet, Duke of Rdinburgh, Etienne Levet, Charles Lefebree, Dulve of Connaught. Prince Arthur, Victor Hugo, Fisher Holmes, Baronese Rothschild, Ulrich Branner, Countess of Rosebery, Her Majesty. François Michelon, Marie Bauof Ronbery, Her Majesty. François mest of the local stands.

## Miscellaneous Exhibits.

A great additional attraction was the splendid display of cut flowers arranged in poses on a central bed in the arena, exhibited by Mr. Frask Law, the Farm Nurseries, Sale.
Thee consisted of Liliea of various species, chief among which was L. Iongiflorum var. Harrisii, Iceland Poppies, Sweet Peas. Centaress, Gaillardias, Sweet Sultans, Candytufts, Roses, Stocls, Campapulas, Delphiniums, Scarlet Lychnis, and many other things.
Mr. Henry Eckford, Wem, Slorophhire, had ifty varieties in a handred globular glasses of $S$ weet Peas laid out in white, and the foliage of the Peae strewn on the ground cloth was quite $n$ feature in itt way, and no wonder that it commanded the attention of the Queen at the Windsor show, whoee lithographed letter of thanks appeared in the exhibits.
Memars. Dicksoss, Chester, had a very showy group of herbeceaus cot flowers, and their little bonquet Roses. The
double Helianthus muit:florus, with its Anemone-like centre, is attractive. The Geams and Poppies were bright and telling, and the Veronica-like Lyeimachia clethroides, with its drooping spikes and white flowern, were mach admired.
Messrr. PAUL \& Son, Cheshunt, had a nice group of Roses: Her Majesty and J. B. Heywood, as well as the Teas generally, were good. Memors, W. Dickson, Bhown \& Tait had a showy group of cut herbaceova flowers, and Roses; and so also had Mesers. Dickson a Robinson, both of Manchester. Mr. Hemby Brownhill, Sale, had a showy group of miscellaneous border flowers; their yellow and white Marguenites were specially good.

The double Begonias in about 100 varieties, from Messrs. Hartland \& Son, of Cork, from their size and novelty in this neighbourhood, attracted much attention. We may name just a few of the very beat:-Dr. Cuas. Mitehell, Mrs. Lewis Castle, a grand salmon; Madame Lelandier, a fine deep soft rose; Duchess of Fife, best of the light colours; Elsa, quite as large, and not unlite a Lady Bume blush Camellia; Madame Desbois, anemone-flowered: Henri Lavoisin, a fine pink; Major Hope, a pretty carmine.
Mrs. HoDeklws, Withington, obtained an award for dinnertable design, with Rosees and dopending aprays of Asparagus in giasses, set in white embroidered work, resting on a jellow bess.

National Pink Society's Show.
This thow, which wse a limited one, was held in connection with the Rove Show. Few growert were exhibiting, most of the flowers not being in condition
For six pairs of Pinks, Mar. Lond Was 1st, his best being
Bovard, Emily, Empres, of India, and John Lowe. In the smaller clemes, Mr. J. EDw 4 RDS wsa 1st, with Bertha Rovand and Juhn Ball. The best red-laced bloom was Bertha in Mr, Rnward SHafis stand, and the beat purple-laced bloom was Godfrey in Mr. Lord's stand.
The Botanical Gardens are very attactive at present. the bedding-out plaots in the low panels casting a fiae pleasing glow of colour avaid the green grase setting. Mr. BRuce Enduay is looking forward to an ettractive show of Lilies next month, and the month following he means to have an evening garden party anch an given at the Botanic Cardens, London, which is sare to stiract and ensure a large company, Bouth Manchester, should honour it with her preeence.

THE NATIONAL CARNATION AND PICOTEE.
Juxr 24 - The members of thin Society may be congratulated npon the exhibition of the ir favourite flower at the Cryatal Palace on the above date,

Everyone apoke well of the Sydenham Palace an an excellent place for such an exhibition; but many deplored the difficalty in reaching it. It is certain that the whole of the Drill Hall in Jame Street would have been required to eccommodate the numerour exhibits.

Carmations, Cut Blooms. - There were five stands of twentyfour Carnations, bizarres and flakes only, not fewer than twelve
disimilar varieties. Mr. R. Sypenh disimilar varieties. Mr. R. SYDeniam. Tenby Street, Bir blooms, the colours bright, but there was a lack of purity in the white grounde. He had, of scarlet bizarres, Ottello and R. Houlgrave; crimson bizarre, Lord Salisbury, very bright ; pink and purple bizarres, Mrs. Burgin, Sarah Payne, John
Harrison, Wm. Skirving, and Master Fred; parple flakes, George Melville, and Gordon Lewis, rich purple; scarlet fakes, Miss C. Graham, and Sportsman ; rose flakes, Thalia, Cristagalli, and Lady M. Currie. 2nd, $\mathbf{M}$ assrs. THomson \& Co. nurserymen, Birmingbam, whose , P. F. James Douglas, and Warrior; R. F. Thalia; S. F. Mise C. Graham, and 8portsman ; C. B. James MerryWeather, and Manter Ered; S.B. Admiral Curzon, and Robert
Honlgrave. Houlgrave.
There were six exhibitors of twelve blooms, Mr. A. R. Brown, florist, Handsworth, Birmingham, taling the Ist
prize: C.B. Master Fred, J. S. Hedderly, and Madeline; S.B, Lord Salisbury, George, and Othello, intense in colour; P. P. B. Harmony, P. F. Feron, very fine in colour; George Melville and Gordon Lewis, R. F. Thalia, S. F. Miss C. GraMelville and Gordon Lewis, R. H. Thalia, S. F. Miss C. Gra-
ham. 2nd, Mr. Charles Prilifs, Brackell, who had very good P. F. Gordon Lewis and Charles Henwood; S. B. Mars and George, P. P. B. Rifleman, and R. F. Mrs. May. There Hadley Roed, Barnet, being placed lst,
Single blooms, $S, B$. ${ }^{\prime}$. The best, given in the order of their names, were Robert Houlgrave, which took the first four prizes, C. H. Herbert taking the 5th. C. B's., Lord Salisbury, Master
Fred, and J. S. H 3 dderly. P. P. B's. William Skirving took the 1st, 2nd, and 5th prizes; and Sarah Payne, one of the oldest namad Carnations in cultivation, the 3rd and 4th. s. F.'s Sportsman tooly all the five prizes, so well was it shown. P. F.'s Gordon Lewis, Charles Henwood, George their names. R. F.'s John Buxton, Cristi-galli, Boamond, their names. Rody M. Carrie.
The premier Carnation was S. B. Admiral Curzon, probably the oldest named Carnation in cultivation, shown by Mr. M. Rowan.
Picotees. - The best twenty-four blooms in not fewer than fine varieties came also from Mr. R. STDEMHAM in very fine condition indeed, the quality of petal and purity of the grounds being eapecially noticeable. Of Heavy Red Edges, there were Ganymede, John Smith, and Branette; Light
Red E. Lena; Heavy Purple E., Amelia and Mrs. Oppenshaw; Red E. Lens; Heavy Purple E., Amelia and Mrs. Oppenshaw;
light purple E., Mrs. Kingston, Jessie, Somerhill, and Miriam; heavy rose E., Norman Carr, Little Phil, Mrs. Burnett, and Lady Louisa; light rooe E, Favourite, Mrs. Beal, Rose Sydenham. and Mrs. Payne.
There were several stands of twelve blooms, Mr. A. R. Brown being placed let, with capital blooms of H. red E. Brunette and Ne Plus Ultra; H. P.E., Miss Anderson and Miriam; L. P. E, Pride of Leyton, Esther, and Thomas William: H. rose E., Little Phil, Emma Geggie, and Mrs. Rogers; L. roee E., Favourite and Mrs. Burnett.

There were twelve stands of six blooms, Mr, A. W. Jowes, Handsworth, Birmingham, being placed Ist, with H. rose E., Forman Carr: L, rose E., Mrs. Burnett and Favourite; L.P.E., Eather and Favourite; H. red E., Brunette.
Picotees with yellow grounds were both namerously and finely shown, the quality generally being very high. Mr. C. Blick, gr. to Martis R, Smith, Esq., Hiyes, Kent, was lat With superbly grown blooms of Vollaire, Gift, President
Carnot, Golden Eagle, Bemembrance, Mrs. Gooden, Cowslíp, Carnot, Golden Eugle, Remembrance, Mrs. Gooden, Cowslíp, Douglas, and Gladys. 2nd, Mr. C. TURNER, who had differing from the foregoing, Primrose League, Nellie Bath, Koenig Albert, Optimus, Janira, Mrs. Barrett, Florrie Henwood, and Agnes Chambers. 3rd, Mr. J. Douglis, Great Gearies, Iford. There were eighteen stands of six varieties, and very few indeed but deserved a prize; the best stand came from Mr. A. R. Bnown, who had Mrs, Douglas, Mrs, Gooden, Harlequin, Mrs. A. Sydenham, Mrs. Dranfield, and Ladas; 2nd, Mr. W. Spercers, Irat who had distinct from the loregoing, Yellow hammer, Almira, Mrs. Henwood, and Madame Van Hontte.
Singls Bloms.-H. Red E., Bruneste took all five prizes; L. Red E., Thos. William took all the prizes in this section L. P. E., Nymph, Pride of Leyton, Mary, and Baroness Burdett Coutts: E. Bose E., Little Phil and Madeline took the prizes; L. Rose E, Rosie Sydenham, Ethel, and Mrs. Burnett H. Scarlet E., Norman Carr aud Scarlet Queen; L. Scarle E., Favourite took all the prizes; Yellow grounds, Mrs. R. Sydenham took all the leading prizes. The premier Picotee was H Rose E., Mrs. Payne, ehown by Mr. C. Turner.
Self and Farcies.-These were also numerous and very fine. Here Mr. Blick again came to the fore with superb blooms of Dulre of Orleans, yellow; Waterwiteh, Eadoxia, Eldorado Almira, Voltaire, Phobus, Proserpine, Ceree, Mrs. Eric Hambro. Sea Gull, lovely blush variety; Eldorado, Haye's Scarlet, Eraw Lass, pale pinkinh rooe, very five; Shellback, Mive Maud Sullivan, Exile, a deep pink self, of fine quality and May Queen. 2nd, Mr. C. TURNER, who had fine bloome of Germania, King of Scarlets, Roee Oeleotial, Romulua, Prim rose League, 新.
There were seven stands of twenty-four, and fourteen of the lat prize with Cardinal Wolee Mr. R. Sybrnifam tool

Flag; Maud Campbell, Brochans, very distinct; Prince Chamo ing, Ruby, Uncle Tom, Madame Learlier, very distinct, 1 being
broadly edged with ruby-red: and Coranna. 2nd, Mr. Jozu Walken, nurseryman, Thame. There were eleven stands sin blooms, Mr. A. W. Jones takiog the lat prize with Stadtrath Bail, Miss Audrey Campbell, Romulus, Janina Alice Brooks, and Seedling.
were: Germania, Uncle Tom, Miss A. Campbell, and Kina Scarlets. The beat fancies, Primrose Dame and Seedlings.

A class was set apart for bix Caraations and Picoteas for those who hav
taking the lst.
There were several entries in a class for two cut blooms an cut from the plants. Mr. E.C. SHARPIN taking the 1st, with Mrs. E. C. Sharpin, an orange-salmon self, very fine and distinct; unnamed seedlings were also shown.
Carnations in pots.-In the class for twelve plants, Mr. 0 BuIck was lst with superbly-grown and bloomed seadlings from seed sown a year ago, the plants finely grown, some of them carrying thirty and forty blooms, admirable erample of high class culture; Mr. J. DoUGLas was 2nd with plants having five or six blooms.
In the class for a group to fill a space of fifty superficial feet Mr. C. Blick was lst with named varieties of very fin quality, raised at Hayes, white selfs being very good.
In the class for a group to flll 30 feet, Mr. J. D
In the class for a group to fll 30 feet, Mr. J. Dovalus was 1st.
Table Decorations.-There was a class for a dinner-table, arranged for twelve persons, Carnations and Picoteea only, with any foliage, there were six of these, Mr. C. Blick taking the lst prize with a table showing good taste, but very heavy. A
charming arrangement by Mr. J. R. CHARD, Stoke Newington, light and graceful in the extreme, deserved recognition. Vases of Carnations were also shown, and to all appearance the largest flowers found most favour wilh the judges. Sprays and buttonholes of Carnations were heavy, but large flowers being used, such a result was inevitable. Mr. Blicr was Ist with three sprays and also with six buttonh les. Blooms of any Carnation with a single spray of foliage were also showa; one can scarcely help asking for what purpose? as they suggested nothing new in design or use. There whs a clasy for six blooms also.
The Martur-Smith prizer. -The best border variety of self. coloured Carnation, in not fewer than twelve blooms, came frow Mr. J. Doughis, who had a darls maroon self of fine quality; Mr. A. Spurling came 2nd with Paradoz, a scarlet self. Mr. SpURLING had the best six bunches of self-coloured varieties, and Mr. J. Douglas the beat nine bunches of Flake Bizane of fancy varieties.
Certificates of Merit were awarded to H. rose E. Picotee Duchess of York from Mr. C. Turnes, Self Seagull from Mr. C. Butck ; Mrs. Colby Sharpin from Mr. Shareir ; and to Y. G. Picotee Maud, yellow, edged with deep orimsoa, very
fine, and doe not split its calyz, from Mr. F. W. CanMprom, fine, and
Reigste.
Miscellaneous Collections.-These incladed large table of bunches of the newer Sweet Peas from Mr. H. Ecriond, Wem; bunches of hardy flowers from Mr. M. Pritceard, Chriatchurch: a large number of bunches of Carnations from Mesars. H. CANNELI \& Sons, Swanley; bunches of Carne tions, dco, from Mr. T. S. WARE, Tottenham; a fine collec-
tion of hardy flowers from Mr. B. If เDHams, Shirley, sonth ampton; Sweet Peas from Mr. W. E. TidT, Havant; and a nice collection of border Carnations from Mr. Jas. Dougras, Bookham.

## BECKENHAM HORTICULTURAL.

JoLy 24, - The horticultural exhibition, held annually in the Recreation Grounde at Backenham, increasen each year in importance, and the society has now won in a very large degree the patronage and nupport of the people in this neighbourhood, as evidenced by the uncommon number of apecial prize offered. The thow held on Wednenday last was in many rempects highly commendable, and mach praise is due to the energetic and honorary wecretary (Mr. T. W. Thornton) for the life he hat infused into the mociety during the lat three yeara
Groups. -There wore numerous groupe of plants arranged tor effect, some in a conapetition for an open class, and others in a class limited to "singled-handed" gardeners. As a role, the collections in either class were too dense, and showed that an attempt was made to include as many plants in the limitod space as possible. However, this fault is a common one, and in other respects the groups were not open to much criticism. The winner of the lat prize in the open class was Mr. The winner of the lat prizs in the open class was
Croswwell, gr. to W. M. BuLlivant, Esq, Holmewood.
Plaxts.-Many of the plants exhibited wers of superior quality, and very few of the classes lacked competition. The six plants suitable for table decoration, in pots limited to 6 inches in diameter, were, for instance, very commen inhble alchough a greater variety should have been included inotend of showing three Crotons, which, however, were well coloured and good. The exhibitor of these was Mr. Wobstras gr. to E. J. Pristor, Eloq.. Kilsey Park. This oxhibitur
also had three good foliage plants, and was lat, the Caladi he staged being very large and well grown.
The collection of eight miscollaneous plants in 10 -inch poter. for which Mr. J. Munro. gr. to J. L. Buceralx, Eaq., Langlor Court, was list, ware of good quality, though none of varieties were apecially rare. There were clases for one bloom. The award for a foweriag plant was given to a large
well-bloomed specimen of Plumbago capensis, which wa placed before a tolersbly good Anthurium and a Stephanotio floribunda.

Begonias were not very numerous, but the quality of aevera of the exhibits was quite satisfactory. The best four plants of these wore staged by Mr. F. W. Price, gr. to H. C. CrowTHER, Esq., Broadelyot. Fuchsiss, Coleus, Carnations, Dahlias, Petunias, and Boses were exhibited in small quan tity, the quality generally fair, but calling for no special remark. There were several exhibits of very commendable Ferps, and the best four plants were staged by Mr. H. Cooper gr. to C. M. Harrison. Eeq., Whitmores ; and in anothe clase Mr. R. Simmons, gr. to F. H. SIMPSOY, Elsq., Thornbury had three fine plante of Adiantum cuneatum.
Frait.-Though not very extensive, the fruit exhibits represented Grapes, Peaches, Nectarines, Melons, Goosebarries, and Currante. Mr. J. MUNRO was lst for black and for white Grapes, and his bunches were of qood quality, but neither the Glack Grapes nor his Muscats of Alezandria were quiter ripe. The ot her diehes of fruits were generally of very satisfactory The of her dishes of fruits were generally of very satisfactory Gooseberries.
Tegetables were exhibited with considerable spirit in the open clasess in those limited to single-handed gardeners, and in others confined to amatears. First prizes for collections were taken by Mr. Munro and Mr. F.W. Price, and Mr. Webster was lat for a nice collection of salad. Potatos were not of more than average quality in the most cases, and the skins were not very clean. but Beans, Peas, and Turnips were good
Tabls Decorations, \&c.-One of the tents was nearly devoted to these and kindred exhibits, which were more than usually numerous. The winning designs exhibited considerable taste, but call for no special notice. Bouquete and rimilar florista' specialties were numerous; and to instance the desire that exists here to provide classes of interest to as many erhibitors as possible, there were mail-carts decorated with flowers, \&c., the worl of children only; and model designs of gardens and greenhouses were numerous Some of these were good, but such clasees insually bring ezhibits of a very artificial and absurd character bring exhibits of a very artificial and absurd character Amonght some furnished window bores there was one shown
by Mr, F. Snnock, of very superior appearance. Nothing very novel was employed, but it was done well in detail.
Cottagers, and Miscellaneous.-There were twenty clases open only to cottagers. most of them for vegetables. Miscel laneous exhibits included groups of plants and hardy cut flowers from Mesers. Jvo. LiIng \& Sons, Forest Hill ; Crotons and other plants from Mesars. J. Pred \& Sows, Norwood, and excellent group of choice Begonias from Mr. Jwo. R. Box, Croydon; and smaller exhibits from local nurserymen.

## NEWCASTLE - ON - TYNE HORTICULTURAI

Joly 24, 25, 26. -The annual show of this oldestablished society opened on Wedneadsy last Taken throgghout it fully maintained it previously high atandard of excellence. Amonget plant the group are beginning to form an important feature The cut-flower clantes were notable for the grand display of Roses, and also for the aplendid exbibit of hardy herbaceon flowers, whilat Carnations and Pannien were remarkable for good quality. The decorative arrangements, 4 on previou occaaions, were quite up to the average, making collectively a splendid display. Fruit, on the whole, was not as good as last year. It is pleasing to note that vegetable have been included thin year, and it is hoped that this portion of the show will be further extended another year.

## Plants.

The specimen clasess for flowering plants were not so well fillod, a fact to be regretted; for whatever may be said of the value of specimens in any other respecta, it will be conceded that they well exhibit the gardener's cultural akill
Mr. Nicholas, gr, to the Marquis of ZeTLand at UDleatham, was an excellent lst for six different and distinct kinds, howing Dipladenia boliviensis, well flowered, and very haalthy: Allamanda grandiflora, a good all-round plant: hoenocoma prolifera Barnesi, also good; Erica ventricosa Bothwelliana, rather thin, but fresh; Clerodendron fallas, grand specimen, with thirty flower-spikes (this fine autumnal apecies is worthy of more notice), and a well-bloomed Stephanotis floribundm. The next exhibit fell far behind this one.
Mr. Nicholas was also first for six exotic Ferns, showing two grand Davallias, D. fijiensis plumosa fully 6 feet through, and very fresh; and D. tenuifolia Veitchiana, a graceful variety grandly developed; and other good plants were Sadleria Cyathoides, and Dicksonia squarrosa.
Mr. MeIntyre. gr. to Mre. Pease, Darlington, was an excellent first for sir foliage plants, having well-coloured Crotons in C. Queen Victoria and C . angustifolius (the latter in its beat form); also Phoenix rupicola and Cycas siamensie, and a dwarf close-growing form of C. circinalis. Mr. Nichonas Wes a good 2nd, haviog the same varjeties of Crotons, with a fine Kentia Belmoreana.
For three Crotons, Mr. MCIntyee wae also let, showing Colius, Wll wall. Baronne Jawes de Rothechild, and C. anguatiwith sull woll coloured; as well as betug lat for three Draceanas. With well-grown good varieties. He was again let for four The plants, viz., Croton Simitziamus beingione of his beet. The best four. Ferns came from Mr. Jas. Wooder er. to
E. Hopper, Esq., Morpeth, his varieties being Adiantum Farleyense, extra fine; and Thamnopteris australasica, wel developed. Mr. McIntyre followed with smallor examples.
Mr. Wrlam, Cramilington, had the best four flowering plants, his Stephanotis floribunda and Allamanda Hendersoni being well broomed.
Mr. McIntyre was allowed a walk over in the class for a large group of 26 feet by 10 feet, taking the lst prize with an arrangement which was broken up into emaller mounde, the flowering plants being brought, as we considered, too much to the front, otherwise it was effective
Mr. Jıs. Wood was lst for the emaller group, consisting of well-gnown plants arranged on the old sloping model; the 2nd prize going to a thin arrangement from Mr. F. Edmondsor, Green Market, Newcastle-on-Tyne.
Some very good freely-flowered Fuchsias were staged, the most successful exhbitors being Mr. Elliott of Felling and Mr. Ball of High Felling.
The table plants were of good character, but Lilies and Orchids were not shown so well as we expected.

Cum Hers
uality, the size and colour of the blooms Messrs. Harkness \& Son, Bedale and Hitchin, were lat for orty-eight varieties, with a very even and bright exbibit. the best varieties being Her Majesty (extra colour), Alfred Colombe, Comte de Raimbaud, Earl Dufferin, Gustave Pigan eau, and Sénateur Vaisse. Messrs. Cockicr \& Son, Aber deen, were a close 2nd, their best being Gustave Piganneau and Captain Hayward, both extra good.


Mears. Cocker \& Son easily beat the Mesars. Croll \& Sor for thirty-six varieties, showing a superb lot, notable for size, evenness, and colour, there not being one weal bloom amongst them; the best were Comtesse de Ludre, S. M. Rodocanachi, Captain Hayward, Marie Baumann, and A. K. Williems, both extra fine blooms, with Ulrich Brunner (of unusual quality and colour), and Mrs. J. Laing, with Charles Lefebrre. The and prize bor contained fine flowers of Madame Bravy, Victor Hugo, Mrs. J. Laing. and Charles Lefebvre.
For twelve yellow Roses, Messrs, Cboll \& Son, Dundee, were let with Marie Van Houtte, wery fresh, and they were let with twelve varieties of Teas, Perle des Jardins, Innocente with twelve varieties of Teas, Perle
Pirola, and Niphetos being the finest.
Pirola, and Niphetos being the finest.
Mesers. Cockra \& Son were again 1st for twelve of any Mesers. Cocker \& son were again ist ior Majetty, which other section, with immense blooms of Her Majesty, which
although large were not coarse, whilst the form, and even although large were not coarse, Whit
character were all that we could desire.
Mr. Weirton, of Bedale, was the most successful exhibitor amongst the amateurs, taking the lit prize and Bronze Bank sian Medal for eighteen capital blooms, very fresh and even, the best being Duchess of Beaford (extra good), Dr. Andry Baroness de Rothschild, and Alifred Colombe. Mr. Whitton was also lat for twelve varieties and for twelve Teas in another section, again showing in good style.
Mesers. Cockre ot gon ware a spiondid lat for eighteen varieties of hardy herbaceous planta, induding bulbe, the ex varieties of hardy herbacaous planta, indluding bulbe, the ex hibit making a very fine display, the fineet bunches were Alstrocmeria aurantiaca and A. pulchella, Campanula Lactiflora, Enothora Frawori, Chrybanthemum grandiflorum, Lilium suporbum, the latter unuaully rich in colour. Mr. Tios.

BATTEN8BY, Blaydon, came a good second, three of hie beet being Voratrum viride, Epiree palmata, and Aintroemeria a urantiaca
Decorative arrangements.-Here Mours. Pepkixe. Coventry and Leamington, carried oft the chiof bonours, being first for bouquets in two clasees, also firat for a bsiket, and for aprays and button-holes, all of these exhibit being in good tast and in no instance too heavy or excensively large
Mr. Summers, florist, Sunderiand, was a very clope competitor in the class for a hand bouquet, where in addition a bronze Banksian medal wan awarded with the 1st prize, which was won by Messrs. Prerins; the only fault being in the ormer an excess of nize.
The beat Epergne came from Mr. F. Enmornsom, a recher ché arraggement chiefly of Orchids. Mr. J. Battansiny aleo won let prizes for bouquets in the amsteusg classes with superior arrangemente ; whilst Mis Frmonnson was a very ucceosful exhibitor of epergnes and basketa.
Carnations. Picotees and Pinks were mpecially rood, no also were the Pansies. Mr. Oampbrle. Auchinraith, Blantyre faring two leta for the latter (ahow and fancies). In all of these clasees the competition was very keen.

## Fruits.

Mr. McIndoe, gardener to Sir J. Pease, Hutton Hall, Guishorough, was lst for both six and four kinds of fruit, there being no other competitor, the best dishes here were grand ones of Red Magdalen Peaches and Humboldt Nectarines, Transparent Gage Plums, and Black Tartarian Cherries: a large bunch of Bannnas was included. The Grapes were scarcely so good as usual from this exhibitor.
In the single-dish classes, Mr. Mclindore was again successful, taking 1st for a green-flesh Melon with Hich Crows Hybrid, and 1st for a scarlet-flosh variety, with Premier; he being also let with Red Magdalon Peaches: Mr. Nicholas followed very closely with the same variety.
For Nretarines, Mr. McInnoe was 1st again with Humbollt, and for Cherries, with Late Ricarreau.
For four bunches of Grapee, not fewer than two varietien. Mr. J. Mark, gr. to J. C. Arkwriewt. Enq., Clitheroe, Lancabhire, was lst, with fine examplas of Muscat Hamburgh, lerge in berry; and Black Hamburgh, also large-both varieties being well coloured. Mr. Tullett, gr. to Lord BARKArD, Raby Castle, came a good 3nd in this class, his Muscat of Alexandria being the best in the show.
Mr. Hunter, gr. to the Earl of DUrham, Lambton, had the beat Black Hamburghs, fine in bunch and finich. Mp. Jas. WOOD had the ripest and highest-coloured Muscat of Alexandria, but the amallegt bunches; Mr. Mctndor follow. ing, with much finer bunches. Mr. Tillett bad the innest Madreefield Courts; Mr. Molndoe being very close, with finer bunches, scarcoly so ripe
For any other white Mr. Motrnos was enaily lat with wellripened, clearlooking Duke of Bucolenoh.
The Tomato competition was keen, and several splendid dishes were shown, Mr. McIspox agnin ooming in lat with Invincible, apparentiy a good solection of Perfection.

## Miscellaneous Exiibits.

These at Newcastle are very important, and were on the present occasion fally equal to anything before ahown. From Memr. Laing \& Son, Forest Hill, S.E., came a grand disploy of Begonias (tuberous), in the finest varieties of both the singles and doubles now in cultivation. They embraced every shade of colour to be found amonget this section, several of the donbles, notably Mrs. Wateon Armatronk, rich apricot buff; W. Clifford, deep rose; Dowager Emprees Frederick, blush and Lady Wantage, rosy-buff. Some of the newer Caladiam and other plants were included. the Begonias having stood the lons journey in the beat posesible manner.
Mr. Doveras exhibited a choice solection of his seedling Carnations (cut blooms), the best being Waterwitch, Ducheo of Orlasme, a fall primroseyellow: Mrs. Kric Hambro, a pure white, of fine form; Braw Lass, form of Haye's Scariet, deep row colour: Mre. Douglas, sulphur-yellow, roey-pink edge and Cardinal Wolsey, apricot-yellow, edged and flaked bright red.
Messara. F. Fell \& Co., Hexham, showed a moat extensive group of remarkably well-grown Conifera in babkets, \&c. These consisted of specie of Retinorpora, Cupresus. Thuia and Juniperus, with some capital young plante of Picea pungens glauca. Cut hardy flowers were also included
From Mesers. Cocker \& Sons, Aberdeen, came additiona cut hardy flowers, making a great ahow, including several kinds not often seen.
Messrs. Kent \& BEydon had a bright group of Coniferee, with Acers, dc. ; and a somewhat similar exhibit came from Mesars. J. Bobsor \& Boxs, which wat made brighter by well flowered Hydrangea paniculate grandiffora
Mr. J. BIMKENEEAD nhowed a large asocrtment of exotic Ferns, small plants in good character. Violas and Paneiee cane from Mr. A. Pre, Gartang, and other exhibitors. Mr. CUTHBERTEON. Rothesay, had a large assortment of hardy flowers: Mr. Campbell, Blantyre, had Malmaison and other Carnstions, the former of deep colour: Messrs. Lamy a Mateer had Carnations; and from Mr. H. Brownhill, Sale, came a much improved race of the annual Chrysanthemums, specially fue atrain, with larger and finer formed flowers.

## Ghituary.

Mr. T. H. Rabone,-It is with mach regret that we hear of the death, on Saturday last, of Mr. T. H. Kahone, the well-known gardener at Alton Towers. Ia our prevent iusue we can only
reproduce the photograph of the decessed gardener which wan given in the Gardeners' Chronicle on October 14, 1876, in our series of British gardenera, but next week we hope to reprodace a few of the fact concerning his early life, then recorded by himself.

Henri Baillon.-The death of this accomplished and mont energetic botanist is annonaced. He was born in Calais in 1827, and proecuted him atadies in Paris. For many years be acted an Profeasor of Botany at the Faculté de Médicine at Paris, and had the charge of the mall garden belonging to that inatitution. Baillon's activity was traly extraordinary. A Bistoire des Plantes in twelve volumet, a Dictionary of Botany in three volumes, innumerable memoirs and monographe attent his diligence. Nor were these worke mere compilation, they were the renalt of actual comparative investigation and remarkable keen inaight. Few, if any, botaniate of our time had so clear and thorough a knowledge of flowering plante in general as Baillon. He attached great importance to organogeny az a key to deciphering the morphological characteristica and the natural affinities of plantu. A quarrel with Decaisne and Duchartre wat the occavion of a permonal attack on those botanists, which for viralence and persiatency has had no equal in our remembrance, and which led to protests from other botaniats who deplored the anscientific violence of the critic.


The distrits indicated by sumber in the first oolumen are the followiog:

> 0, Scotland, N. Principal Wheat-produciag Distriots1. Midland Counties; En, Kngland, inciuding Tondon E. Eng Princrpal Graximg, \&c., Districts-6, Scotland, W. i 7 , 10, Ireland. B. : Whannel filande.

## THEPEAT WREK

Tere following summary recond of the weather throughout the British Ialand for the weok ending July 20 , Is faroished
from the Meteorological Onwee:The weather during one:-
st The weather during the early part of the week was five in all the more eactern, central, and southern parta of our Ilands, but changeable and showery in the west and north. After the leth, howevor, unsettled weather apread madually from the weatward over the whole Kingtom, the rainfall of
the 18 th and 19th being in many places very heavy. Thunderstorms occurred in several parts of England on the 19th, and thunder was heard in a few isolated places on the 18th and 20 th.
"The temperature was slightly below the mean in all districte, excepting 'England,E. and So, where it agreed very closely with the normal. The highest readings were observed mostly on the 17 th or 18 th, and ranged from $81^{\circ}$ in 'EnzlanJ, S,' and $78^{\circ}$ in 'England, E..' to $69^{\circ}$ in 'Scotland, N., Ireland, B., and the Channel Islands,' and to $67^{\circ}$ in 'Scotland, W.' The lowest readings occurred at various times in different parts of the country; at one or two stations in ' Scotland, N. and E., and in Ireland, N.;' the thermometer fell elightly below $40^{\circ}$, but in the 'Chan ael Islands' it did not fell slightly below $40^{\circ}$, but in the 'Chanael Islands' it did not
go below $48^{\circ}$, while in 'England, N.W.,' $49^{\circ}$ was the lowest go below $48^{\circ}$, whit
reading reported.

- The rainfall exceeded the mean in all districts, the excess being vory slight in 'Scotland, No, but large over the central and soathern parts of England. In the "Midland Counties and the Chnnnel Islands' the amount recorded was twice as much as the mean.

The bright sunshine was less than the mean in most districts, the deficiency being very large in the Midland Counties." In "Scotland, E., England, N.E., and the Channel Islands,' however, there was a slight excese. The percentage of the possible duration ranged from 16 in 'Scotland, N.,' and 19 in 'Ireland, N.,' to 40 in 'England, $\mathrm{S}_{0}$ ' and to 46 in the 'Channel Islands.'

## MARKET8.

## COVENT GARDEN, July 25.

[We cannot accept any responaibility for the subjoined reporta They are furnished to us regularly every Thursday, by the kindness of several of the principal for the quotations. It must be remembered that these quotations do not represent the prices on any particular day, but only the general averages for the week preceding the date of our report. The prices depend upon the quality of the samples, the supply in the market, and the demand; and they may fluctuate, not only from day to , but often several times

| OUT SLOWE | $\operatorname{ta}_{0} d_{0} \text { s.d. }$ | Whoweshle |  |
| :---: | :---: | :---: | :---: |
| Arums, par dozen blooms |  | - 12 aprays | 8. $4-0.8$ |
| Asters, per bunch | $10-16$ | Oattieys, |  |
| ouvardian, pe bu | 06-10 | Odontoglossum |  |
| Carnations, 12 blms . | 10-30 | crispum, 12 blm . | $30-60$ |
| Rucharis, per dozen | 16-26 | Pyrethrums, 12 bun. | $20-40$ |
| Gardenias, perdor. | $30-40$ | Rosee, Tea, per dor. | $10-20$ |
| Lapageris, 12 blms . | 10-20 | - coloured, p.dz. | 20-40 |
| Lilium Harrisii, per | 20-40 | - yellow (Maréohals), per dozen | $30-60$ |
| Lilium lancifolium, per dozen | $20-40$ | - red, per dozen <br> - red, per dozen | 1 |
| Maidenhair Fern, per 12 bunches ... | 40-60 | bunches <br> Stephanotis, dozer | 40-9 |
| Marguerites, per 12 bunches | 10-30 | $\begin{aligned} & \text { sprays } \\ & \text { Sunflower (sin } \end{aligned}$ | 16-2 |
| Mignonette, per 12 bunches |  | doz. bunches | 0 |
| rgonium |  | Sweet Peas, 12 bua. |  |
| , per 12 bunches | 40-6 | Tuberoses, 12 blms. | 0 4- |

## Phatia in Pots.-Avicragif Wholrghtr Priong.



## SEEDS.

Lonoos : Ju'y 24.-Mesars. John Shav a Sons, Seed Merchants, of Great Maze Pond, Borough, London, S.K.
now an improving demand for Trefoil and Rape, and mon eapecially for Mustard seed; all these three varieties now offer on exceedingly tempting terms. New hoine-grown Bye is coming to market. Full prices are asked for yearling Winte Tares. There is no change in either Peas or Haricots. Bird seeds, at this quiet season, show no fresh feature.

## FRUITS AND VEGETABLES.

Borovari: July 23. - Quotations:-Peas, 2s. 6d, to su per bushel; Onions, 2s. 6d. to 3s. per bag; Horseradish, 1s. to 18. 3d. per bundle; Apples, Tasmanian, 6s, to 8s. per ena Currants, 1s. $9 d$. to $4 s$. per half-sieve; Gooseberries, 1s. 6dit 1s. 9 d. do.
Spitalfields: July 23.-Quotations:- Scarlet Runneme 3s. to 3s. 6d. per bushel; Peas, 2s. to $2 s .6 d$, do. Carrote, $2 s .6 d$. to 3 s . per dozen bunches; Turnips, 2 s . to 2 s . $6 d$. do. Cabbages, 5s. to 6s. per tally; Marrows, $4 s$. to 6s. do. ; Cueum. bers, 2s. to 3s. per dozen.
Stratrord: July 23.-Quotations:-The supply to thit market during the past week has been good, and, with p.enty of buyers, a brisk trade was done as under:-Cabbages, 2s, to 3s. per tally ; Turnips, 2s. to $2 s .6 \%$. per dozen bunches; Carrots, household, 1s. to 2s. per dozen: Mangels, 20s. to 34s. per ton; Onions, Egyptian. 5s. 6d. to 6s. per cwt. ; Bina, Scarlet, 3s. 6d. to $4 s$. per sieve ; do., Broad, 1s. ed. to \%, per bag; Peas, 5s, to 6s. do.; Cherries, 5s. to 6s. per hall. sieve; Berries, $2 s$ s to 3 r . do.; Apples, $2 s$. to $2 s .3 d$. do.; do, $3 s$. 6 d . to 4s. per bushel; Marrows, 68 . to 7s. $6 d$. per tally; Cucumbers, 1s. 6d. to 2s. per dozen; Onions, Ports, 5s. 64, th 6s. per case.

FARringdon: July 25.-Quotations:-Raspberries, 2s. 4 per half-sieve; Gooseberries, 3s. do.; Cherries, 6s. 6d, to is do. : Green Gages, 3s. to 4s. per basket ( 12 lb ); Plom, $2 s$. per box of 10 lb . ; Cucumbers, 7s. 6id. to 8s. per dozen; Cabbages, $3 s$. to $3 s$. 6d. per tally; Carrots, 3s. per dozen bunches; Turnips, do.; Marrows, 2s. 6d. per dozen; Brod Beans, 1s. 6\%. per bushel; Scarlet do., 2s. 6d. do.

## POTATOS.

Borovati : July 23. - Quotations ranged from 80 . th 110s. per ton.

SPITALFIELDS: July 23.- Quotations:-Puritans, 110s, to 120s.: Hebrons (Bedford), 100s. to 120s.; do., Essex, 100. to 110 s.; Suttons' Regents, 100 s. to 120 s. : Yorkshire Hem, 110s. to 120 s. per ton.

STRATFORD: July 23.-Quotations:-Old: 208. to 30s. pur ton. New: Hebrons, 110s.;to 130s.; Kidneys, 100s, to 120 s , Snowdrops, 110 s. to 130 s . per ton.

Farringdon: Ju'y 25.- Quotations: -White Hebrosis 110s. to 120 s. per ton; Red do., 100s. to 110s. do. ; Puritus, 110 s. to 120 s. do.
London Averiges: July 24.-New: Snowdrope, 110s th 120s.: Febrons, 110 s. to 120s.; Early Rose, 110s, to 12 hi Puritan, 120s. to 130s.; Early Regente, 100s. to Illes Jersey, 90 s . to 110s. per ton. Old : Magnums, 40s. to 50m put ton.

## HAY.

Averages.-The following are the averages of the pricu a the principal metropolitan markets during the past week:Clover, prime, 90s. to 115s.; do., inferior, 50s. to 80s.; hyh
 92 s ; and etraw, 20s. to 38s. per load.

## CORN.

Averages. - Official statement of the average pricud British Corn, imperial measure (qr.), for the week endill July 20, and for the corresponding period last year: - 1806 : Wheat, 24s. 4d.: Barley, 18s. 6d.: Oats, 16s. 8d. 1894 Whest, 24s. 6d. : Barley, 19s. 6d.; Oath, 19s. $7 d$.

## Variorum.

The Indian Shot or Canna.-It bae beels atated that the only difference between a weed and a wild flower is, that it is a weed when it comes up where the cultivator does not want it. A wild flowif then, becomes a weed when growing in cultivated ground. One would hardly suppose that the Canti of our gardena, a beautiful wild flower of Florida, is often a great pent to the Floridan horticultarist, and is clasaed there as among the wornt weeds. It nemel it appeara persitently in low ground, known to cultivators as hummock soil; its root-stockg grown deep in the ground, that the plough does not tars them out, so that they grow up as bad as eref in newly-ploagbed ground. The roote have to be def out with a ppade in order to get clear of the Meehans' Monthly" for July.

ENQUIRY.
He that questioneth much shall hearn much."-Bucor.
Elragnos edulis.-Can any reader nay"bow the berries of this plant are made use of, 00 as to be edible? In their natural atate no one would care to taste them more than once. $V$.


- Owing to the large increase in our circutation, we are reluclantly under the necessity of going to press some hours earlier. Our contributors, who well know what this implies, wiil kindly aid us by sending their communications as early in the woek as possible. Communications should rench us not later than Wednesday.
- Plants, Fruits, etc., to ber Named.-Correspondents sending plants or fruits to be named, or asking questions demanding time and research for their solution, must not expect so obtain an answer to their enquiries in the current woek. Specimens should be good ones, carefully packed and numbersd, and not more than six should be sent at one time. Leaves only, or Florists varieties cannot, as a rule be named.
Books: A Subscriber. Grape-growing for Amateurs, by E. Molyneux. London: Upcott Gill, 170, Strand, W.C., price 18.
Brech: E. M. B. The occarrence of laciniated leaves on the Beech is not ancommon. It is an instance of bud-variation, or "sporting"; but Whether it is a reveraion to a former atate of thing, or an adaptation to new circumatances, no one can tell. The Fern-leaved Beechen of garden have originated in this way, the "sport" being grafted on to a Beech atock, and that propagated. Cabnation: $G_{0}$ W. aenda us flowers of Carnation in which the stalks are abruptly bent downwards. We do not know what the cause of the diatortion is, but we sunpect it may be the result of insectpuncture at an early stage of growtb.
Cerysanthemoms Diseased: G. Harwood. The plant are attacked by a minute mite which pancture the young leaves; the fungus Botrytis then settles on the wound and apread.s. Spray thoroaghly, so that the bud are soaked, twice a week, with a deep-red solation of potassic permanganate. G.M.
Diseask in Plum and Prar Trees: T. W. O. Neither cause nor care is known. It is, howover, known that the disease is contagions, therefore all dead treen should be barned, also branches, leaver, and fruit. The application of manures containing ammonia favours the dinease. G. $M$.
Glapr Vines: $G$. W. The disease is certsinly not black-rot, neither is there any evidence of any fungoid disease. Not having the roots ander proper contral is undoubtediy the cause of the leaver and fruit going wrong. G.M.
How Prat beds are Formed: G.F. We cannot do better tban give you the account by Spender in the Transactions of the Bath and West of England Society, of the formation of the peat-bed of Holland. "In the high lands peat is supposed to have been formed by the decay of vegetable life, chiefly that of moss and heather on the aurface of the ground, which forms a mould that increases year by year until it bas undermined the health of the trees, and having caused their fall, gradually covers them over with a yearly-increasing deposit. Ages afterward the trunte are found several feet below the surface of the bed. The foreats protected the growth of the moss and were destroyed by it. In the lower bed peat is formed by the decay of aquatic plante under water, which fall to the bottom and form layer upon layer. These are often found floating on the surface of the water. Floating peat-beds were at one time common in part of Holland, but the modern Datchman, lese aperatitious than the Romans, who were greatly alarmed by the floating foreste of the Zayder Zas, fastens these fugitive parts of hil estate by ropes fixed to staken fixed in more solid earth.
Licher: G.W. W. Phyncis ciliare,
Mealy-bue: M. T. G. G. Should uee the XL All Vaporiser.

Nambs of Plants: Correspondents not answered in this issue are requested to contut the next number. W. H. D. 1, Ruse, garden variety; 2, Sonecio arteminixfolus; 3 , Veronica longifolia var, rowea: 4, V. longifolia $\nabla$ ar, albs; $\bar{b}, V$. nitida; $6, V$. media.-J. A. 1, Galega officonalis alba; 2, the Crown Pea (fasciation); 3, Spirsea Lindleyana; 4. Earybia argopbylla; 5. E æagau pangens.S. G. Jones. Alstromeria aurantiaca.-W. $T$. 1, Cystopteris bulbifera; 2. Pteris chinensis: 3, Aspleniam viviparum.-Campbell. Eupatorium cannabinum.-C. L., Berlin. Specimens all quite withered. 1, Cypripediam, may be bellatalum, or one of the hybrids from that species: 2, Vanda Bensoni ; 3, Vanda hastifera; 4, Dendrobium bicameratum; 5, Dendrobinm sulcatum. These are probably the epecien nent, but the material is so bad that we cannot pledge ourselves to the correctness of some of the names.-H.M Tilia platyphyllos.-No Name. 1, Linaria cymbalaria; 2. Achillea Ptarmica, double-flowered; 3, Galium verum; 4, Linaria valgaris; 5, Echium valgare. -G. A. 1, Clitores Ternatea; 2, A variety of Lathyrus sativus, often erroneously called Lord Anzon's Pea.-A. F. 1, Acer Negundo variegatum; 2, Taxue baccata Var.; 3 and 4, Juniperu. virginiapa: 5, Betula; 6, Picea excelas var.J. B. J. A Viola, oo far an we can make out from auch a poor specimen.-G.B. Chryanthemam carinatum.
Pras: A. B. Something in the soil or the manure that has an injurious effect on them. Do other crops affer mimilarly? In some places the grabs of cockchafer and wireworm do much harm to Редт.
Roors: Ross Florence. Rose double Macartney, Marie Leonida.
Test for Lime in the Soil: W. P. Pour some strong sulphuric acid on to a little of the soil in an earthenware vessel, and if effervescence take: place there is lime present.
Tomatos: J. H. B. 1, Carling of the leaf is frequent in some varieties; the lower part of the leaf grows diaproportionately fast, probably from over atimulation. 2, Yes; was not the ammonia in too large proportion to the water? 3, Yea.
Tomatos and tee Bordeaux Mixture: Tompkins \&f A. $K$. The formula has been given in these pages many time before, and we repeat it for your eapecial benefit. We think that every gardener ahould hang a copy of it in his potting-ahed for referenco in case of need:-Copper ulphate, 4 lb .; frenh unslaked lime, 3 lb .; water, 40 gallons. Place 6 gallons of the water in a tab or barrel, and hang in it 4 lb , of pulverised copper sulphate in mome coarne arking. Slake the lime in another veasel, sdding water only as fast as it takes it up, and then ponr together. Enough limeshould be used to neutralise the free acid of the copper, an if this be not done, the foliage will be injured. To tent this, get a pennyworth of yellow prusaiate of potash at the chemist's, and place in a bottle of water. Add a few drope of thie to the Bordearax before it is dilated, and if it turn it brown the lime is deficient, and more lime should be added until the prussiate of potash has no effect. The above formula is a strong a Bordeaux Mixtare can be uted at any time, and if it is strained twice or thrice through canvas, it may be used in sprayers and pumpe without clogging the nozzles. If fangi are not very troublesome, and when everal applications are to be mado at frequent intervals, 50 or even 60 gallons of water may be need. Alway mix the Bordeaux in wooden, earthenware, or brans vemels, and the fitting of the pump, \&c., thould be of brate.
Tomatos Dismasso: Market Gardener. The woil hat nothing to do with it, nor the manure you have employed, although the excentive darap atmosphere which growers maintain in their houses favours the growth of minute fungus. The plant is much wafer in a comparatively dry, warm house than in a moist one. See reply to Tompkins.
Tomatos: $A_{,}$P. B. The beginning of the Black-rot. Cut off all the affected fruits and barn them, dreasing the plants with the Bordeaux Mixture. Can you send specimen of the beetlo which gnawed into the fruit ment?
Varietiles of Fruite for Maristing: Igmoramus. Red Currants: Raby Cantle or Victoria for late, and La Hative for very early nae. Red Datch if a weet, rich frait be wanted; and La Fertile, a
very heavy bearer, and large fruited. Pricen about 20s. per 100 ; pew variaties a little deerer then this. Black Varieties: The Ogden for esply uae, and Lari Biack for general ase. Price about 23s. per 100. Three varietipa of Rapberry: Falataff, large, excellent, red: Baumforth' Seedling. large, prodactive, red, 15s, per 100; Superlative, red, heavp cropper, 258 per 100 . If a yellow variety be grown. choose Yellow Antwerd. or for late use Octnber Yellow. Black or Purple Cooking Plums: Early Rivers, anequalled tor cooking and preserving. The fruit is very heavy, a bathel weighing from 70 to 80 lb ., whereas other varieties eeldom exceed 60 lb . irupe at end of July. Late Prolific, equally productive and good, ripens three weeke later; Wyedsle is a very lact variety, ripening in October. If an early dessert Plam of a dark parple colour is required, choo The Czar; if a late deasert variety, one of the bet to plant is Monarch, which is ripe late in September. Late and early varieties of any kind of fruit pay well. The pricen of etandard of Plama for orchard from $£ 6$ to $£ 7108$. per 100. Dwarf maiden sbout 128 per dozen. Distances at which to plant red Carraute, 6 bs 8 feet apart. Black Currant rather more, say, 10 feet in rich deep soil; and 8 feet in that which is naturally poorer or thallow. Plams 14 feet apart if bushes; 20 feet if atandards. Rasperries, if grown on stools throwing from eight to ten cane each, which will be bent over and tied to atake fixed midway between the stool in the line of the plants, or a trifle more on one side of the line, which is better at 6 feet apart; or they may be planted at $2 \frac{1}{2}$ to 3 feet apart, and the fruiting canes restricted to six, the canes being then made self-sapporting. The best Gooseberry for picking green is Whinham's Industry, or if for gathering when ripe as well, then choose Hielander or Lancashire Lad-price per 100 same as red Currants; distance spart also the aame.
Virgmia Crgeper: E. $M_{\text {. Vitia (Ampelopria) }}$ hederacea. It is aid to have been introduced from Canada or the northern Uaited States in 1629, and was originally called Hedera quinquefolia, under which heading you will find it in Miller's Dictionary. Of courne it is no Ivy, but a Vine.
Vnus: J. W. The abanking in other years was due to the roots having got low down in a border, which, owing to the great length of time that has elapsed aince it was made, bas become in an unwholesome condition. Your partial escape this year from shanked berrie is due to the great amount of anahine having warmed the coil to a greater depth than usual, and caused an excessive amount of tranmpiration from the folinge, and thus preserved, to some extent, a balance between requirement and mupply. You thould examine the border this year an soon as the crop is ripe. catting the buacher and bottling them. If the border is foand to be in bad order, make a new border with fresh woil. \&c, and see that the drainage is well provided for, and the depth of moil does not exceed $2 \frac{1}{3}$ feet, raising the surface above the surronading level, the anboil being clay.

Co munications Received.-A. B. F. M.-G. W.-W.W. -R. J. L-E. L. J.-H. H. D'O.-G. N.-Prof. Penzin, Genos. -W. T. - W. J. T., Hong Kong.- R. V. \& Sons.H. W.-Ch. de B., Antwerp - A. E. B.-Canon E-T. T. W. C.-J. J., all next week.-P. F. A.-W. A. C.-A. D.

CONTINUTED INCREASA in the CIRCULATTON OF THE "GARDENERS CHRONTCLR."

Important to ADTEETARERS.-The Publithor has the satisfaction of annowncing that the circulation of the "Gardeners Chromicle" has, since the reduction in the prics of the paper.

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[^8]
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Wheat ear Ping in Tipperary

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Gardenters' Clironidl.

SATURDAI, AUGUST 3. 180\%.

MUSHROOM SPAWN.
THE feneral public, and even a cood many gardeners, have but misty ideas as to thm mode of growth of Mushrooms. It this is trues with reference to the Mushrooms, it is even m ipt so in regard to the spawn. Those who do know are not always successful in the ${ }^{6} \mathrm{~m}$ mufasture of spawn, and sometimes experience disappointment in the growth of that purchased. I'be gardener has frequently to encounter two evils in Mushroom growing, one uncertainty of poduction, which may arise from bad or dead spawn, but is usually the result of want of care in regulating the temperature of the bed before or during spawning; the other the production of Mushrooms, indeed, but of Mushrosms inter. mixed with other fungi whose presence is $n$ st desirable, and might even be injuriuas. This evidently arises from the use of bad, that is of mixed spawn. The "spawn" represents the roots, stem and branches of a fluwering plant, and it feeds upon decaying animsland vegetsbe matter, being, in fact, what botanists oall a "saprophyte," and not a "parasite" on living plants. When this spawn is placed under suitable conditions of moisture and heat, it absbs food, grows, spreads, and ultimately sends up into the light and air the stalked oaps which represent the fruit or seed-vessel of an ordinary plant.
The would-be " manufacturer" would do well to visit a botanical laboratory where fanzas "cultures "are undertaken, so that he might be able to see and realise what are the conditions under whioh fungi can be grown. "Culture" in a laboratory and oulture for market, though dependent on identioal principles, are necensarily different in detail. A French botanist, for instance, has succeeded in growing Mcsh. rooms on glass-plates with the aid of certain chemical solations, and withont the aid of any manure whatever, the temperature being kept aniform. The advantages of such a procedure in oleanliness, certitude as to the species employed, and regularity of production, would of course be great. At present, however, this is only a laboratory experiment, and as such presents nothing remarkable to the student of fungi. Whether suoh procedures can be talken on commercial lines is another matter, and one that might well be investigated at Chiswick or some other experimental garden. In the meanwhile, we must go oa in the old Wayn, and get the leat spawn we can. The "manufacture" of Mushroom spawn may le looked on as a curious and out of the way sort of industry; but it is a very important one nevertheless, as those who pay a visit to Mr. Johnson's farm at Hanger Hill, near Ealing, may see for themselves.
Mr. Johnton, we may any, from uach an inepection of his land and tiv crope ae Jaily journey through them for some yore past has wableá us to make, is an excellent farmer, and one who apparently doe not approve of grambling and despair as remedies for
agricultural depression. Amongst other thing he bat a herd of 100 or more cows and these repsy the attention bentowed upon them, not only by the milk they yield, but by the aid they afford in the production of virgin nawn. In Mr. Johnton' spawnfactory the bricks have the form of flat tilen 9 inchen by $4 \frac{1}{3}$ inchea. They appear to consist of fine loam mixed with cow-manure and with fragments of pawn interspersed. When mixed, they are spread on the ground in the open air to dry, and then placed on racks in oppn theds. There il mo large a demand for thin spawn, that ono difficalty is occanionally felt in coping with it.

Mr. Johnson tents the value of his spawn by himself growing Mushrooms on a large scale. Long raised mound of manare are formed in the open air, each 32 yards in length, and 2 feet 6 inches in height, and an much through at the base. The degrees of fermentation and heat are, of course, watched, and when the heat has decreased, say to $80-90^{\circ}$, and remains pretty uniform, the beds are "spawned" by the insprtion at intervals of fragments of the bricks 3 inchen zquare. The beds are moistened when necesary, and when the soawn has commenced to run, the beds are then cased with mould about $1 \frac{1}{2}$ or 2 inches thick. and then covered with long litter, beveath which, in about six week, the fangi make their appearance. On the average, we were told, these bed have produced 19 lbs , of Mushroom to the yard. The average price for the year bas been $8 \%$, per lb , or $128.8 d$. a yard. Four ontdoor beds apawned in September last came into bearing a month later, and produced npward of 2000 lb. weight of Mahhrooms by November, some being of extraordinary ize. The weekly average gathering in upward of 700 lb . The beds are so arranged as to ensure a more or lew continuous mpply, one set succeeding another.
"City gentlemen" riding to town every morning by the District Railway from Esling are puzzled to know what can be grown on thowe long monnd of earth, on which nothing green ever seems to make its appearance. We remember that yearm ago a very distinguished butanist, and one by no meana unknown in the gardening world a generation ago, travelling to and from Kew vid Patney, uned to express his wonder in like manner at these myaterions mounds. That they contain buried treasure wo hope we have made apparent.

The three bed shown in the photocraph (fig. 24) produced at this gathering 508 lb . of Mushrooms, or an sverage of 5 the yard.

## New or Noteworthy Plants.

CATTLEYA $\times$ JUNO. Byb. Mav., L. Barron. (C. FORBESI $\times$ C. VELUTINA.)

This hybrid has been raived in the collection of C. G. Roebling of Trenton, N.J., where it was in flower June, 1895. In general appearance the flower may be lisened to that of C. velutina, brightened; the growth reminds one of the other parent ; altogether it in a decided acquisition in a aection but little cultivated. Flowere $3 \frac{1}{3}$ to 4 inches in diameter, borne erect on three-flowered seape, highly fragrant; sepala and petals equal, light yellowish brown, irregularly and apareely apotted with intense rose, andalate, recurved at the apex, flushed rowe at the beve, where they are narrowed lnowt to claw. Lip prominent; median lobeetmiorbicular, white with rich heavy veins of


Fig. 23.-mushboom culture: making tar "spatws.
rose; side lobes wrapped closely over the column, pure white flushed with rose on the margin; yellow-veined in the throat. Leonard Barron.

## The Rosary.

## A WHITE MOSS ROSE.

Mr. Newnbam Brown, of Reigate, has in his aarden a white Moss Rose tree, which twice during this meson has produced a flower ball-white, half-red, all the other: being white The white and red do not melt into each other, but are sharply defined, one petal, in fact, being
half-red, half-white. According to Mr. W. Botting Hemsley, who writes in Nature, there are mend varieties of Rose which "revert" or "sport" in thin manner to the anceatral colnar. The atriped whito mi red "York and Lancater" Rose is an exampla Generally, the proportions of red and white are the anme in any two flowers; but sometimes a pare pinkif not also a pure white-flower is seen. This the veraion is ascribed to an imperfect blending of the parent atock; and as any vegetative bud of aplath is capable of producing any or all of the orgaes of the whole plant, or when detached from the parent plato of similar organism, it follows that in a cross-bred vaition, which is not constant or "日red," any vegetative bed may produce the crose of the parant forms.


Fino 24.--stesmoon celtorv: Gatmmanm The ceot.

## REPORT ON THE CONDITION OF THE FRUIT CROPS.

## [FROM OUR OWN CORRESPONDENTS, AUGUST, 1895.」

The vords "average," "over," or "under," as the case may be, indicate the amount of the crop; and "good," "very good," or "bad," indicate the quality.
The countie; are arranged in numbered groups, to correspond with those adopted in the Weather Reports of the Meteorological Department, and followed in our weekly W eather Tables.
** Fuller comments will be given in the following Number. See also Leading Article on page 128.


CONDITION OF THE FRUIT CROPS-(Continued).


CONDITIUN OF THE FRUIT CROPS-(Continued).

| COUNTY. | APPLES. | PEARS. | PLUMS. | Cherries. | PEACHES AND NEC. TARINES. | APricots. | $\begin{aligned} & \text { SMALL } \\ & \text { FRUITB. } \end{aligned}$ | STRAWBERKINS. | NUTS. | $\begin{aligned} & \text { NAME } \\ & \text { ADD } \end{aligned}$ |
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| 3. England. E,CAMBRIDGRBEIRE ...... | Average | Under <br> Under: good | Under <br> Under: good <br> Under <br> Average; good | Over <br> Over: very grood Averago | ....... | ...... | Orer iverage; good | Orer <br> Over: good | Over ,ouce | Andrew Grant, The Viaerif. Willingham Ouborbe Farm, Winbech |
|  | crage : good | Under; zood |  |  | Over: Rood | Unde | Oro | Average | Over | James Hill, Babrabam Oar den*, Camberdge |
|  | Average; very rood | Under A |  | ode | Unde | Und | Over: very good | Over | Over: good | Wilmon C. simythe. I'puoll House (lardeot Wimber h |
|  | $\begin{aligned} & \text { Averege: good } \\ & \text { Under; good } \end{aligned}$ | Under: good <br> Under: rood | Under: good <br> Average: good | Over : very good Average: good | Averege: good | Undes <br> Under: bad | Over very rood Avernge: ceod | Over: very cood Under; very bad |  | Charlee Batiar. Parndum Hind Garden, Harlow |
|  |  |  |  |  |  |  |  |  |  | H. May. Havering Park Gar- |
| LINCOLNSEIRE ........... | Average: very good | Average; very good Arerage | Average ; good | Average: Rood |  | Under <br> Average: good |  | Over: good <br> Over: very - mall Under | Average: $\mathrm{cood}^{\text {B }}$ | H. Lieter, Eanton Lodme, Dunmow |
|  | good Over; very good Uver |  | Average ; good | Over; very smal | Average: good |  | Over: good |  | Aversme; mood | Williom Pleoler. Tlonhom Hald Quriene, Stanmend <br> J. Overall, Hall Gardeow, Bun- |
|  |  | Under: good Under | Under |  |  | Avarage: good |  |  |  | -ted <br> Jas. Douglas, Great Gearí. |
|  | $\begin{gathered} \text { Over; very } \\ \text { good } \\ \text { Average; very } \\ \text { gcod } \\ \text { Over; good } \end{gathered}$ |  | Under; good Under | $\begin{gathered} \text { Over; very } \\ \text { good } \\ \text { Avere; very } \\ \text { good } \end{gathered}$ | Average: good <br> Average ; good | Average: good <br> Avernge: very nood | Over; sood | Orer: very good | Under: 000 l | Jas. Douglan, Grest Gearí: Ginden. 11 ford <br> E. Hill, Belmont Cantle Gepdent, Grayn <br> R. H. Tutcher, Bocking Plere |
|  |  | $\left\lvert\, \begin{gathered} \text { Average; very } \\ \text { good } \end{gathered}\right.$ | Under; bad | Average: good; Morello averag. | Average: good Under; good | I'ader; good | nood <br> Over; very good | good Average; goo | Truder; mood | Gardans, Braiditee <br> Jamen Vort. Audiey End Gas. dena, Saffron Walden |
|  | iverage; very 200d |  | Under; good |  |  |  |  |  |  |  |
|  | Over; very good | $\begin{aligned} & \text { Average: } \\ & \text { good } \end{aligned}$ | Average: good | Over; very goo I | Under; bad | Under: bnd | Over: very good | Average: good | Average, Fil berta; Wal. nute, undep Few grown | William Lummen, Tbe Gardens, Blozholm Hall |
|  | Average | Under | Averpmo | Ovar | Unier | Under | Average | Orer | Few grown | Thomes Vinden, Harlaxton Manor Garden, Graolhom J. Howlande, Bandney Manor Gardena, Lincain |
|  | Orer: | Under | Averago: 5 5od | A versge |  | Under | Over | Avarage; goed | Under |  |
|  | 1 verage : zo | A verng | Under | Average: f00 | Under |  | Over ; mood | Over: cood | Averoge | J. Spilobary. Mionkey Hall Gardenp, glea ford |
|  | Average | A verog | Over; good | Under | Unde | Under | Over: vey good Average | Over; grod | Aversge | Heury Naylor, Grim thorpe Gardeds, Bourne |
|  | A verage: ${ }^{\text {a }}$ A | Average | Unde | Und |  | Und |  | Average ; good | Aversge | Wm. M. Cooper, Ufington House Gardens, Mtamford. <br> 8. F. Hazeltow, Brockleaby Kark Gardens |
|  | Average | Under | Average | A vetag | Ove | Under | Over: very good Average | Over; very rood | Over |  |
| NORYOIK .................... | Under | Under | Under | Averse | Under | ..... |  | Over; good | Walrute ander: pmall Nuta average Oret | B. Batchelor, Cation Park Gardeng, Norwich |
| SUFFOLK .......one.n.e. ... | Over: good Over: good Under | Average Under | Under <br> Under: good | $\begin{gathered} \text { Under } \\ \text { Under; good } \end{gathered}$ |  | Under | Average | Averoge |  | F. Lee, Lynford Garcienp, Mundford <br> H. Tedder, Marham House Gardene, Dowi hum |
|  |  |  |  |  |  |  | Over: good gry | Over: very good | Uader: $x$ od |  |
|  |  | Under; |  | Average: gooc | Average | ****. | Over: very | Over; excellent | dor | H. Fieber, Flizton Hall Gardene, Bungay |
|  | Average ; good | Under | Ur der | er; gom | ers | rs |  | Orer; good | Avers | - Mewenger, Woolveratoue |
|  | Averag | ade | Under | Over | Avers | nde | Orer | Over | Under | T. Fioh, Bury ot. Edmunds. suffolk |
|  | Under; bad | Under; | Average; goor | Avernge; gooi | Over: 800 | Under ; good | Over; | ver: | U $\llcorner$ d | ${ }_{\text {G. Wa }}^{\text {Wargford }}$. Krien, Henbam Gardens |
|  | Average; good | Over; | Aversg | er; | vers | nd | Average:go | ver; good | Und | Hepberi Comer. Ickworth Pay Gardens. Bury St Edra unds |
|  | A verage : | Under: | Average; good | Under; good | Average; good | Bad | Under | Bad | Average: g | Jchn Perkins The Gurdens, Thornhsm Hall, Ese |
|  | Average ; very | Under: | Average | Average: ver | Over ; very | ila | Ovar; very | A verage: very | Over: very | H. Rogerm. Kendleetham Gar- |
|  | good <br> Under; good | Under: good | Under ; Eood | good Average ; good | $\begin{gathered} \text { good } \\ \text { Averege; good } \end{gathered}$ | Under: bod | A verge ; good | good <br> Under: bad | nood | John Wallis, The Gnrdera, Orwell Park, deat Ipowich |
| 4. Midland Countien | Under; Rood |  | Under; good | A verage; good | Under ; good | Under: good | Average: good | Average; mood | Average: good | Geo. Ford, Wrest Parl, Ampthill |
|  | Average: good | Avarage: good | Average; good Under | Average ; cood | *-1+0. |  | Over: geod | Over: very good | Averege | Tho Hedley, Patteridge Bury Gardene, Luton |
|  | Averag | Average |  | Average ; good | Under |  | $\begin{aligned} & \text { Average: good } \\ & \text { Good } \\ & \text { Averige; good } \end{aligned}$ | Average; good | Average | Tupner, Cranheld Cuurt. Newport Pagnell <br> H. W. Nutt Fitwick, Ampthill |
|  | Under | Unde | Kad | Goot | Uedor | Uuder |  | Geod |  |  |
|  | Average ; giod | Under: good | Under <br> Bad | Under: bad | ...... | Under; bad |  | A verege ; gord | Averege: good | C. R. Clarke, Oakley Gardens, Bed!o'd |
|  | Average; go | Under <br> Under |  | Average | Average | $\begin{aligned} & \text { Under; very } \\ & \text { scarce } \\ & \text { Ead } \end{aligned}$ | A verage; good | Over: very goud |  | G. B. Allis, Oid Warden Park Gardens, Bifgleswede Bichard Calvert, Wot urn a bey Gardens Wclurn |
|  | Average |  |  | Very good | ..... |  |  | Very good | Good |  |
| buckinghamseire ... | Over; gocd Over <br> Under <br> Over; very good Average; gcod | Under: good Average Average | Average <br> $\Delta$ verage <br> Average | Good <br> Average <br> Good <br> $\Delta$ vernge; good | ..... | Bad | Over: good | Oree | Averager | G. Bloxham. Gireat Brickhil |
|  |  |  |  |  | Over | Averoge | Oent |  |  | Gfo. T. Milen. Wycombe Able |
|  |  |  |  |  | Under | Under | Good | Good | Aversge | W. Waterm Bulatrode Parle Gardens. (ixrrard'r Croas |
|  |  | Average ; good | Average ; gond |  | . ...... | Under | Ovet: very goor | Over: very good | -.....0 | John Jaques. Waddeadon Mavor Gardens Ayleebury |
|  |  | Average : good | Urder ; good |  |  |  | Over; very |  | Over; very | Hedley Warren. Anton Cishan |
|  | Under | Under: bnd | der ; bed | er: 5001 | Under | Undor | Under | Aranege | Over: good | Sas. Thomat, thardeloes Gur. |
|  | Average | Unde | Average | averago | Over; 800 | Undur | Average: ${ }^{\text {cose }}$ | Averag | Orer | Chas. Herrip, Drepmore Gur dene, Maidenhead |
|  | Over; gocd | Under | Over; good | Aversgo | Under | Uniler | Over: yool | Ovar; good | Over ; grod | J. Imitb, Mentmore, Leigh'ol buzzard |
|  | A verage | Under | Under | Aversge | Average | Aversge | Average: go | Orer | Over | Henry Perkins, Orenlands Gardens, Henleg-on-Thumpy |
|  | Very good | Very good | Under | Very 5001 | Very mood | Averago | Avarge | Very ${ }^{\text {now }}$ |  | F. Capp. Wexham Parik Ga dene, Slough |
| CHKsHiRE ............ | Over; gcod | Over: good | Aversge | Avernge | '...... |  | Over: 500 | veraso | ${ }^{1}$ | Robt. MecKellar. The Gardens. Abney Hall Crealle |
|  | Orer | Over | Ovet | Over | Over | Undor | Over | Over | Over | Wm. Wlitaher, Crewe Hall Gardess, Crewe |
|  | Over; very | Under; good | Over: good | A verage; good | Not growa | Under | Over: very | Over: very good | ; ...... | - C. Parnes, Estou Garden* |
|  | good Very good | Averag* | Good | Very good |  | Under | Very good | Vity good | Goud | Charles Fiact, Chaimondelay Castle (iardens, Malpas |
|  | Average | Moderate | Undes | .0.8.0 | -1..0 | *nos* | Over | Ore | **** | Bey.C.W. Dun, lege Hall Malpas |

CONDITION OF THE FRUIT CROPS-(Continued).


CONDITION OF THE FRUIT CROPS-(Continued).


CONDITION OF THE FRUIT CROPS-(Continued).


## CONDITION OF THE FRUIT CROPS-(Continued)



CONDITION OF THE FRUIT CROPS-(Continued).


# Orghid Notes and Gleanings. 

## ODONTOGLOSSUMS FROM THE HIGHLANDS.

Flowers of Odontoglossam crispum, to the number of filty, and cut from different plants, have been sent by R. Brooman-White, Esq., Arddarroch, Gairlochhead, Dumbartonabire, which afford an idea of the excellence of the atrain which has been imported by bim. While all are of good form, no two are exactly slike, some being pare white with a little red and yellow colouring at the base of the lip and the tip of the column. Sume few have a decided salpharyellow hae, while othere are almont entirely of a pale lilac colour. In all the varying shaden of ground colour, epotting of either brown or parple appears, and in two of the lowers the inner halves of the aegmenta are thickly eprinkled with very amall red-purple dota. The variation in the different flowert is remarkable, and when they are ranged side by aide it appears atill wore evident than would be the case if the plante were viewed as arranged in the Orchid-house. Mr. White ayy of them:-" We have had over 1500 epikes on our O. crispum this year, and not a siogle bad one among them, au I think you will agree when you see the bloom I send, which are a fair sample. From tome canse, however, I do not think them quite up to the atandard of last year, and several ocher growert have made the ame remark about their Odontog'osaums. Ponaibly the protracted hard winter may acconnt for it. We grow our plante on open woodwork stages close up to the glase of the roof, and nothirg could be more atatiafactory."

A very remarkable Cattleya Mendelí with zosepurple petals almont as dark as the lip is also nent. If conatant, it will be a diatinct variety.

## Cyrtopodita Andersoni, R, Br.

This Orchid is a native of Trinidad, and grows in open apaces fullv expoesd to the sun. The fusiform stems are some 2 to 3 feet in height, from which the plaited leave die away after becoming mature. The plant flowere in April and May, from the bave of the growing atem, and produces a scape some 3 feet in height, beariag a panicle of brownith yellow flowers. The centre of the basal lobe of the lip is quite yellow, with a crenulated and brownish margin. It is bent grown in well-drained pota filled with vegetable refues, dried cow-dung, and broken bricks, and requires plenty of water in the growing aeason. Bulletin, Trinidad Botanic Garden.

## The Week's Work.

FRUITB UNDER GLABS.
Ay Houikd Panurr, Gardener, Goodrosod, Chichestor.
THE PINERY.-If arrangemente have been made, as recently advised, an to bottom-heat, \&cc., for atarting a freah atock of planta, the nuckers may be potted forthwith, so that they mas become eatablished in the pots before the end of the sutamn. The auckern should be twisted off the old atool, and a few of the lower leaves atripped off, no as to expoue
about 1 inch of the stepe. A saitable size of pot is one of 6 inches in diameter. This size will be large enough for most suckers, though very strong ones
 never be used, and the drainage should be good. Place the anckers low down in the pots, and make the oil very firm about them. The loam ased ahould contain a fair amount of aharp-sand or grit, ite presence favouring the formation of roots. Pionge the pote up to the rim in a bed of Oak-lpaves or tan, having a bottom heat of from $85^{\circ}$ to $90^{\circ}$, and if the plunging material be moisiened by syringing its auface once or twice a day, and the air is also kupt muint, the suckers will require but little water before they have made roots. A slight dewing of the leaves on bright afternoon will aetist the suckers in forming roots. The hoone should be shaded in the middle houre of the day in anny weather, but, as a rule, shading should not be mach afforded. The auckera will not need to be mach ventilated; atill, a certain amount wiil be required by them on very hot days. The tomperature at night may be kept at abont $70^{\circ}$. Pianta of the Queen variety intended fur fruiting in Jave, 1896, should now be in full growth, and will require to be regolarly E fforded tepid water, and once a week a mild manurial aid to growth. The planta should not be wach shaded, and what shading is ased should be of very thin material; moreover, a fair amount of air shou'd be admitted, so as to ensure a stardy plant. Those plants on which fruits are swelling, but which have not began to ripen, may have manure-water occaainually, and a briak temperature with a moiat air afforded them.
strawberries.-The recent rains have greatly sasisted ronting of the runners, and when it in seen that a nofficient number are well rooted, no time ahould be lost in placing them in the pots in which they are to bear frait. The moil used should be a rich turfy losm, enriched by a one-third addition of decajed stable manure; and the pots should be clean onew, with a fair amount of drainage material carefully laid-in and covered with a handful of the fibry lumpe of the loam. The potting should be done firmly, uning a rammer, wo as to get as much wil into the pote as ponible, but leaving sufficient space for water. Place them in a partially shady place for a week, then remove them to one fully exposed to sunahine. They may atand close together for a time, affording them more and more apace an the crown of leaver grown.

TOMATO日.-The batch of Tomato plants for affording winter fruit ahould be forthwith placea in their fruiting-pots, and atood in a manny position. If a disused Melon-house can be devoted to them, they may be planted out in the old bedr, abundant ventilation being afforded.

## THE FLOWMR GARDEN.

By Barhey Wadns, Gardaner, Birdeall Gardens, Pork.
ranunculua abiaticua.- For making a late diaplay in the spring garden, the Ranunculus is a a late plant, the flowers lasting a long time in good condition. Many of them are fragrant, and all are useful for catting. The plants require a rich soll, and to
be planted in sheltered situations. The dosbloflowered Freach Tarbsa varieties have Iarge fown of bright coloura, and they are good growers. Niw varietie are Brutas, Empereur de Maroc, Florina, Grand Master, La Grandease, L. Saltana, L'Etincellante, Lord Macaalay, Mont Blanc, Prince of Walen, Princess of Walea, Queen Victoria, Robert Bram, William III.. Yellow Gem, Yellow Queen. There are also the Doable Persian, Duable Suotch, Duble Tarban or Turkish varieties in fine colours.

BRODIEAB. - These besutiful free-flownim bulbs deserve a place in every garden of apring flowers, being very hardy. The Brodises are anfilil for planting in clumps or bedo, and for catting. Saitable species are congesta, coccines, and volabilis.

LILY BULBS for planting in beds or barden should now be ordered from the florists, autams. planting being the beat for species of Liliam which are bardy. Croceum arantiacam, the comman orange Lily; L davaricum, d, erectum, d. falgidum, d. grandifioram and maltifloram, d, ineom* parabile, $L$ L Tnuabergisnam atrosanguineam, LL pie tum, I Priace of Orange granditioram, Lo Va Houttei, L. candidam, L. Longillurum and tha pariey Harrisii; L. neilgharrense, L. eximinm, L. Mer tagon or Tark's-cap Liliea, in several beantifal varie ties, orange-yellow and scarlet-coloured; Lilias tigrinam and its var. L. Fortunei ; and L. auratan. which in very satiufactory when planted in good rich, well-drained soil in a sheltered situation.

IRI8. -The brilliant varietien of English, Spagith and Pervian Iria, are excellent for planting in baro ders; also Iris reticalata and rubro-coeralen, whon flowers are tragrant, deaerve a prominent place if the bulb garden. Then there are the Gartith Japanese, Sibarian, and other bearaifal variation which are deserving of caltivation.
tianiolas should be grown su "dot"plati" by themselves among other plants, or is clumpa bed.

THE HERBACEOUS BORDER. - The rin mil warmith now prevailiag in this diatrict ( 4 inclad rain aince July 16) are ceasing rapid gromth in kinde of plante, and where tall annual specien planted for the sake of an autumnal diaplay, mon care will be required to preserve the herbeation perennials from injury by over-crowding. alad, ad hould be frequently given to weeding the sec il securing all tall-growing plant to atakel, will caser the fastenings made during the will require easing. Hollyhocks should have ap care in this respect, the stems being apt injured by tight ligatares. Phloxes of thould w growing species, perennial Aatert, \&ce, and flom made secure, and freed from dead leaves a
8HOW VARIETIES OF THE DAHLIA. -The phat cow be making etrong growthe, and regking constant attention in the mattor of are bie fastening will be necesasry. If flowers are mis grown for exbibition more than one required to a plant, in fact, it is prudenb buly allowe to each main shoot, one flower buds be allowed to each shoot, the side shoote and an reduced in number, thowe flower-bads
perfect form being retained. For ahading the flowers bays of light-coloured maslin are the bett. The Dahlia bedt should be heavily malched with short litter, and manure-water afforded once a week. Dwarf, aingle, and double-flowered Dahlias, planted in masees, may be left to grow unrestrained; psovided the bed are copered by them. Trapa must be set forthwith for earwigs, collecting the insects daily

ROSE8.-Piants which were cut down to the ground in the apring have, in many instances, made very atrong growth, and it will be pradeut in exposed gardens to fix them to short atake, with tarred twine or willows. Most of our dwarf Roses that were hard praned, made fine shoots, which flowered well. Keep the Rose-beds tidy by removing spent flowera, cut away thin flowerless, growths, and ahorten back those shoots of H.P.'s which have carried bloom, thas assisting the later blooming of the planta. Teas of strong growth and Roses on walls, hedget, or pillara should be trained so as to keep the shoots from injary by the wind, but should not be tied too atiffly, a certain degree of freedom being farourable to growth. Proceed with the budding of Roaes, and look to the fastening of bude put in come time ago.

## THE ORCHID HOUSES

$B_{y} \mathrm{~W}$. H. WHitr, Orchid Grower, Burford, Dorking.
CYPRIPEDIUM8.-Of late years no Cypripediams have received more attention from our hybridists than the specien C. niveum, C. concolor, C. Godefroyg, and C. bellatulum, and so far as my recollection goes of the croses already obtained, the characteristics of this section invariably predominate in each hybrid. Uf the numerous crosees raised I may mention C. Aylingii, Muriel Hollington, Gertrade Hollington, Tautzianam, Lawrebel, Concolaare, The Pard, Aphrodite, and tessellatam porphyreum. There are cultivators who find the apecien more difficult to manage than most Cypripedium, but as regarda the crosses they, as a rule, conform readily to cultivation, but should any one of them become anhealthy, much patience and clone attention are required to bring them round. Any of these plant that are in need of rooting-space or fresh material in consequence of the old having decayed, should now have attention. As regarda repotting, this should not be done more often than is absolately necessary, because the roots are very brittle in their nature, irequently napping off when disturbed in the least degree. Instead of turning well-rooted Cypripediams out of their pots, break the pot by gently tapping it, and pick out the rotten compont, and if this can be done without disturbing the drainage materials, there will be still lena fear of injaring the roots. Hlace the entire mass in a larger pot, allowing plenty of apace for filling up to twothird of its depth with piece of chalk or limeatone, or failing these, with pieces of tufa, bricke, or thick crocks. The plant should be kept on a level with the rim of the pot, which should be filled ap with good fibrous loam, freely mixed together with the bita of limestone, \&c., and a small quantity of sphagnum-mons. The repotted plants may be placed in a light part of the East Indian house, and shaded with thin acrim at all times. All of the above specien and crossen need water in abundance at all times, especially when in fall growth. Great care id needed to prevent water lodging in the centre of the growthe or in the leaf-axils, where it causes the decay of the leaves; and intead of affording water with a can, it is beat to dip them in a pailful of water, lowering them so as to jast cover the surface of the compost, and allowing them to remain in the water aufficiently long to ensure ataration. Thrips infest the young foliage of Cypripediams, and do mach harm, and the gardener needs to be always on the alert sponging the leaves, but taking care in so doing not to raise them higher than is necesaary, or they will crack.

AERIDES.-Any plante which from exhaution following the production of flowern or other cause havelont ame or all of their lower leaves, may now be lowered in the pots, while those which have lont but a few may have additional drainage afforded, and the cone of aphagnum-mona raised up to the lowermont leaves. Any of the long fleahy aerial roots may be pegged down on to the surface of the mons, which in time they will root into, helping the plants to retain their leaves during the seanon of rest. It is necessary after diaturbing the roots to ahade the plante rather heavily for a time, frequently damping between the pota, and being very careful in affording water. The cool-growiag Aëridea japonicum and Angræcum falcatum thould be kept in the least airy part of the

Odontoglosum-house till the commencement of the winter.

The pretty bright blue Rignchostylia (Saccolabiam) coelestia is a plant that attracts attention whenever exbibited, but it is one that is neldomseen in a flouribing condition, the cause of failure in most cases being that it is grown in too much heat. The Cattleya-house would seem to be the best place for it the whole year. It is now sending up it flower-spikes, and hould be placed near to the roof-glass, aud be thinly maded. Cockroaches often injare the young mpikes; it if, therefore, a good plan to hang it from the roof, or stand it on a pot in the middle of a pan of water.

## PLANTB UNDTER GLAB8.

By W. H. Amith, Gardener, West Dean Park, Chichester.
DUTCH AND OTHER BULBS FOR EARLY FORCINQ.-It is time that bulbe for forcing, if not for planting out-of-doors, thould be obtained from the dealere, remembering that thos who send early are often the beat aerved. If Roman Hyacintha are grown, these bhould be the earliest to place in their pots, the balbs soon beginning to make roots either in or out of the earth, entailing the loss of many root if the potting be deferred. Freesia refracta bas delightfally fragrant flowers, and the ordering of a number of the balbs of this plant ahould not be forgotten. If they are potted early, and consint of continental.grown prodace, they will show flowers much earlier than those which ere of home growth. The soil which suits these, and indeed most other bulbs caltivated in pots and boxea for early flowert, is a friable tarfy loam (oassed through a half-inch nieve), two-thirds; leaf-mould, three-sizths; and dried cow-dang, three-sixtha, with enough silver-and to make the whole porous. Tae aifcings from the loam may be used as a drainage-layer nver the crocks, and in the case of Freesias, Lilies, Brodimap, Ixias, and similar amall bulb, peat may take the place of the cow-dang. Balb potw should be deeper than they are wide.

Chrybanthemums. - The plante must have daily attention, booklog not for black-Ay, which is prevalent this year, duating the ahoots, \&cc., with tobacco-powder at night, and syringing is uff the next morning. Mildew if noticed may be prevented from spreading by the use of flowers-of-sulphur used with a dredger. The fastening of the ahoots must be atteaded to at frequens intervals. Any plant. whose root filled the pots, may be afforded weak soot-water, or a light dressing of Clay's or mome olther fertiliser, but it is not advisable to feed them overmuch until the flower-bads are set.

CINERABIAB. - Continue to re-pot as the sil fills with roots, 32 's and $24^{\prime}$ ' being useful aizes in pots in which to flower them; but if plante larger than ordinary are denired, the main flower-stem, on commencing to rise, should be nipped off, the plants being bilted, and eventally coming iato 16's. If green-ty infesta them, fumigation should be resorted to, or tobacco powder be dusted on the lower sides of the leaves.

MERBACEOUG CALGEOLARIAS.-At thin date another pan may be conn, keeping it rather close and shaded till the seeds have germinated. Tne first sown batch of aeedling thould now be prickedoff into pans or boxes an soon as large enough to be handled, placing them clow to the glass in \& cold frama, affording a slight anount of bade in sunns weather.

CAMPANULA8. - Picked-off seediings may be potted into large 60's, using loam, leaf-mil, cow manare, and asnd. Place outside on coal-athes and afford plenty of water at the root when established, apringiag them frequently in suany weather. Those that are in flower, if of exceptionally good quality, should be placed by.themselve for needing purposes.
geabonable hints.-The boileri and hot-water piper hould be examined for defects, leaks, \&c. Last winter will have severoly tried many heating apparatus, and from the preaent time till the middle of Aagast is a good time for carrying out repairn and renovations. In fact, it in good practice to empty them and clean old and new boilers of nedimentary incruatatione, well washing them out.

## THE KITCHEN GARDGF.

By Josm lambert, Gardener, Powis Carele, Wolshpool.
CELERY.-Where the apace at command will permit of it being dose, some row of the dwarf red or white valieties nowa in May or even later may
be planted. Sach Celery, if not earthed-up much before the winter, will frequently go throagh the winter without much lose, turning in most neefally late in the apring.

TRIPOLI ONION8. - The ground for thir crop may now be prepared, preterence being given to a prece of atiff aroll that is well exposed to the sun. Although ()aions do best in soil which is rather heavy, is should not be waterlogged. Before digging the land, afford it a heavy cont of stable-dung, and some fresh soot at the rate of one pects per aljuare rod; and if it be light make it firm by trampling it evenly and regnlarly all over, doing this when the nurlace is dry. Another dreasing of noot may be raked into the nurface before the drill are drawn. The drills abould not be a less distance apart than 1 foot, or deeper than 1 inch. Having sown the seeds, cover-in the drills, and again tread the land or pasi a light roller over it. Sow about one-half of each variety in the second week in Augut, the other half being kept over for sowing in the latt week. Very larga-growing varieties of Tripoli Onions do not, as a rule, beand our wintera, and a fow varieties need only be grown to meet the home requirements. Nearly ail the socalled "spring ()aions" will withetand the frout of an ordinary winter, and they serva the ame purpose as the Tripoli varieties. Early White Naples, Giant Rocca, and Giant Lamon Rocce, are useful Tripoli Oaions.

8ALADS - A lant sowing of Endive may now be mave, planting out beds in a warm border of earlier raised lindives. Piant out Cos and Cabbage Lettucen at intervals of a week; now Lottuce seeds and tie ap such Cos varieties as may need it. Mustard and Crese, also Land Cress seeds should be sown, not forgettiag a pinch of that of Dandelion.

## THE HARDY RRUIT GARDEN.

## $B_{y}$ W. Pope, Gidener, Highclers Castle, Newbury.

ripening fruit apricots and peaches Trees with ripaning fruice abould be daily examined, and all which with a gentle pull part freely from the siem should be placed in a cool room on ciean white paper. They will keep in good condition for three or tnur days. Peaches show the slightest bruise, needing therefore cartfal handling. It in desirable to place a sheet of wadding or aome fine wood wool under the paper on which these fruit are laid. In most gardens the trees will have to be covered with mualin or hexagon netting when the frait begins to get ripe, fastening it at the edges, so ae to exclude wapp and flies. If ant are troublesome, some means should be devised for their extermination before thia date. They may be trapped by mearing the insidea of a few imall flower-pots with honey or treacle, and laying about in their haunts. These should be examined two or three times a day, and immersed in boiling water for a few minutes. Fresh gaano aprinkled about and over their nests will mometimes canse them to seek fresh quarters, or they may be deatroyed by watering the neats with a fairly atrong solation of soft-soap and petroleum.
outdoor arape vines.-Grape Vinet on walle should now havo all the superflaous nhoote removed entirely, the lateral growthe being pinched at the points as may be necessary to enaure plenty of light being admitted to the principal shoots. The bunches ahould be placed close to the wall, and if they are intended for dessert, the berrie suuld be thinned more or less according to the estting. For winemaking, thinning the berrie will not be necenary. As soon as the iruit commences to ripen, it must be protected from the birde and wasp; the latter are eapecially deatructive to the ripening fruit. Baga made of hexagon or mualin, drawn over the bunchea, will ave them. Earwiga should be trapped with bita of bean-etalks, or flower-pots hung ghout the trees, or laid at the foos, with a little dry mose at the bottom, with boiled Potato or aimilar bait placed under the moas; these baita
being examined every day, and frequently ronewed. Keep \& tharp look out for mildew, and on the first eign of it, dust the Vine with flowers of sulphur.

OPEN FRUIT QUARTER8. - Keep the hoe at work in the fruit quarcers whenever the weather is dry, killing weeds and aërating the noil; bunhes and other carrying heary crop of frait whould be assisted with copious doses of liquid manure; and if a elight mulching of atroog manure be applied beforehand it will prevent the woil being washed away from the roots that are near the surface.

## EDITORIAL NOTICES.

Advartieemente should be aent to the PUBLISHER.
Thistrations. - The Editor will thankfully receive and selec thot photographs of gardens, or of remarkable plants, lowers, trees, pages, of gardens, or of temable for loss or injury.
Lotters for Publication. - All communications intended for publication, as well as specimens and plants for naming, should be addressed to the Editor, 41, Wellington Street Covent Garden London. Communications Sheeh Coveat Garde, LORd, of the paper, should be WRITTEN ON ONE BLDE ONLY OF THE PAPER, sent as early in the week as possible, and duly signed by the writer. If desired, the signature will not be printed, but kept as a guarantee of good faith. The Editor does not undertake to pay for any contributions, or to return unused communications or illustrations, unless by special arrangement.

## APPOINTMENTS FOR THE MONTH.

## MEETINGS.

tursday, Ava. $13\left\{\begin{array}{l}\text { Royal Horticultural Sociés's Com- } \\ \text { mittees, Drill Hall, Westminster. }\end{array}\right.$ TUESDAY, AUG. $27\left\{\begin{array}{l}\text { Royal Horticultural Society's Com- } \\ \text { mittee }\end{array}\right.$

rimoay, AUG. $9\left\{\begin{array}{l}\text { Imported Orchidh, at Protheroe a } \\ \text { morris' Bocmes. }\end{array}\right.$

COLRECTED AVERAGE TEMPERATURE FOR THR RNSU. IsG WEER, DEDUCRD FROM THE OBSERVATIONS OH YOATY-THRER YRABS, AT OHISWICK.-63.

The Fruit
Crops. British Islands has enabled us once more to present a tabular statement indicative of the state of the frait crops in the present season. The wide area involved, and the number of reportera, many of whom have obliged us in this way for many years in sucoesnion, afford guarantees that the report is a olose apprimation to the trath.

Taken as a whole, the report is iningalarly uniform in its character, and decidedly favourable. Apples promise to be abondant in all districts. Pears, unlike last year, are defioient. Plums are a medium crop. Cherrie are, or have been, unusually abundant. To a lers
extent this may also be said of Peaches. Apricots are muoh below average. Small fruits and Strawberries have been very plentiful, with the general exception of Raspberries ; and Nats yield a fair average.
These results may be seen in the following table, showing the number of reoords in each case, and the proportionate numbers of cases in which the yield is of an average oharacter, or over or above the average:-


We must leave it to our meteorological friends to oompare theae reaultg with the olimatal flootuations of the late sutumn, winter, and spring. One thing seems clear, and that is, that the severe weather of early spring had no malign influence on our fruit crops, unless perhaps the deficiency in the Apricots is to be attributed to this canse. It seems also evident that local oon-
ditions are less potent in affecting the genemi result over a large area than olimatal influenom Fruit oulture is extending in this country, and the discussions of the last few years have made it evident that, setting spart the inflated estio mates of some persons, there remains a reasors able prospeot of suocess open to those who know their business, and exercise industry, foresight, and care, without which no business can be profitable. In future issues we shall pablish a series of comments on the frait crops in various dis. tricts, with whioh we have been favoured by our correspondents.
$W_{E}$ are surprised at the greut Streptocarpus. length of time that the specimen of these plants, which Memn. Vritcer \& Sons, Chelsea, exhibited at the Temple Show last May, have remained in blooin, During the period of two months whioh hes elapsed since that show, other varieties of plants, which have some resemblance to them as regand their flower and stature, namely, Gloxinias, have come into flower and passed away; but the Streptocarpus oontinue to make a brave shom, and promise to throw up bloom for soms time longer. It is, therefore, a better "paying" plant for the gardener with a small amount of house-accommodation to grow, if it bo a less beautifal flower than the Gloxinis These self-same plants were wintered in low pis from which the frost on several occasions wis acarcely excluded, but suffered no harm thero from, as their past and present floriforoume amply testifies, whioh is another point in theit favour. Moreover, they have been sucow fally used as bedding plants, and if in dry border and protected by a thick muloh, they might even survive the winter in the opec. Theae pits are at the present time planted nith a generation of seedlings of Streptocarpus, the results of carefully determined orossings of the best of this year's flowering. We may therefore expeot to have disolosed to us in the size, who stanoe, and markings of the flowers some rematr able improvementa on known varieties, machan these latter have hitherto responded to and te warded the efforth of the cross breeders. We my say that the raising of new varietien offers no more difficulties, once a good strain is obtsined, the in the oase of Calcoolaris or Pelargonim the same precautions holding good against wit and ohance fertilisation. The seeds mey sown when ripe, that is, in early autamn, or in the apring-better at the former season. 2 oompost should consist of two-thirds pest, ats third loam, and plenty of sharp sand; sized pot large $60^{\circ}$ or amall 48's, so as not to have tho many plants in a masg together, orowding and other to their detriment; and the draneff very amall crooks placed over one large fant piece to the depth of 1 inoh. The seeds pis minate in moderately warm moist house of pish, The pote, when the seedlings have apporith should be placed on a shelf prettynear to the gricing shading them only from hot sunshine. Priows off may be done at any time daring apring hig summer, with the proper precautions of 1 the plants close and shaded till re-established with other seedling plants, Streptoorpuis shavin not remain in the pots in which the seed way till they get weak and drawn by being and together, but they thould receive timely tion al regards prioking off.

After staying in the prioked-off stage for ' month or sit weeks, they are fit to oome itite "thumbs," and when these are filled with ro into still slightly larger pota, or to be plate
out in beds of soil in pits oapable of being heated when neoessary. If not planted out in this manner, the plants should continue to be repotted till they reach a small 32 -sized pot, in which they ought to be left to flower. Plants of more than one year old will of course need, after they have been rested, to be potted into pots of larger size than this.

Group of Azalea indica alba at Pen. mice Castle.-The illuatration (fig. 25), show: a group of Azalea inclica alba, grown outside at Penrice Caatle in the ordinary soil of the garden, to which a mall quantity of leaf-mould was added
to open on the 5th inst. is postponed till the 22 ad. Special facilities are offered to gardeners who may feel disposed to visit this the firat apecial exhibition of Lilies held in the country. There will also be a apecial exhibition of Grapen.

Gardeners' Royal Benevolent Inbtitu TION.-The Worthipfal Company of Fruiterers have given a donation of $£ 1010$ s to the funds of the Gardeners' Royal Benevolent Institation.

- H.R.H. Princent Louisz (Dachese of Fife) and the Duke of Fife have graciously aignified their intereat in the work of the Gardenern' Royal Benevolent Institution, by adding their name to ita liat of Vice-Presidents.

Mr. F. Moore, of Glanevin, han been elected a corresponding member of the Societe Nationale d'Horticulture of France.

Shirley and Surrounding District Gardeners' and Amateurs' Mutual improvement A8bociation.-At the monthly meeting beld on the 15 th ult., Mr. R. D. Spencer gave an intereating lectare on "British Herbs, and their usen." There was a fair attendance of the membera, and at the clowe of the lecture a cordial vote of thank was accorded to Mr. Spincer. On the 17th nult., a large number of the members and their friends, numbering ninety-two, had what is hoped may prove to be the first of a serie of annual outing. On


Fig. 25.-Group of azalba indica alba, at pbnbice chetle, awansed.

When the plants were put out. They have now been planted five yearn, and, with the exception of a top-dressing of leaf-mould afforded after they have finished flowering each year, they have had no other attention. No protection whatever was afforded them daring last winter, and whereas in other parte of the garden at Penrice Rhododendroni, Portagal Laurele, Wellingtonias, Taxodiams, and many other treen and shrubs have unfered severely, these are not hart. The aapect of the border is weat. The photograph from which the engraving was taken wat kindly aent by Mr. Minkun, the gardener at Penrice Caatle.

Royal Botanic Society of Manchester. - It will be seen by our advertiaing colamns that the great Lily and Grape show which wan announced

The Royal Gardeners' Orphan fund.The unal monthly meeting of the committee took place on the 26th ult., W. Marahall, Eeq., in the chair. The following apecial receipts were announced: The Wimbledon Horticaltaral Society, ale of flowern at the annual ahow, $£ 558$. proceeds of Rose fair at the Croydon Rone Show, per Mr. G. W. Cumminh, $£ 7$; Mr. W. A. Millire, The Gardens, Underley Hall, box, £1 18s. 8d.; and Mr. C. Hzaniw, The Gardent, Dropmore, box, 17s. 6d. The death of Mr. John Wills, a member of the execative committee, having been reported, the Secretary was instructed to convey to Mra. Wrics the deep aympathy of the committee in her bereavement, and their profond regret on the lom of no noble a apporter of the fund, and of auch a aincere and valued friend.
this occaion the Royal Gardens, Kew, were visited, and a mont exjoyablo day was apent in examining the great collection of plants from all parts of the world; we hope some experience was alco gained. The Prenident, Mr. W. F. G. Spranger, accompanied the party, and by his kindneas and that of a fev friends, the members were provided with lunchoon and tea at the pavilion in the grounds.

Agri-Horticultural Society of Madrab.The last number of the Proceedings contains an account of the annual flower show, held on Februsry 24, which aeems to have been up to the average atandard.
"Traite de Culture potacere." Par J. Drbowsex (Paris: G. Masson).-A second edition of Mr. Drbowsar's excellent treatise on market gar-
dening and kitchen gardening has lately been published. It contain in substance the lectares given by this well-known practitioner at the National School of Agricaltare at Grignon. The plants treated on are arranged in alphabetical sequence, and not only are the details of caltivation explained, but the cont of prodaction is minately examined, and the best method of packing and marketing supplied. Of course, the book is written for French reader mainly, bat the treative is so practical that much of what it contains may be tarned to account here.

A Garden of Pleabure.-The author of Day and Hours in a Garden, has, in this new work, premented to the reader a fresh series of chapters on "The Garden" daring the varying changes of the year. It is a diacursive chronicle of garden progrest, under the varying inflaences of the changing meanons. We shall take an early opportunity of allading to it more at length. Mr. Ellior Srock is the pablisher.
"Vorgeschichtliche Botanik der Cultur UND NUTZPFLANZEN DER ALTEN WELT AUF GRUND Paèibtoribcher Funde." Von Gborg Buschan (Brealau: Max Mücleri). Prehietoric Botany.The origin of cultivated plants is a fascinating ubject of enquiry, greatly facilitated of late yeara by researches into prehistoric collections, whether in the Egyptian tombs, Assjrian monumente, or in poat tertiary geological atrata of various nature. In the present volume the author collects the information derived from these several sources, and presents it in a form which will be very eerviceable to ntudents. He deale with the principal food plante, Earopean trees, and miscellaneous plants of interest. The oldest traces of Vine-culture go back to the time of the bailders of the Pyramide. In the neolithic and bronze perioda, the Vine was also known; whilat a Vine is chown to have exiated in the mid-tertiary period by the remains found in the brown coal formation. This fomil Vine is maid to have had nearer resemblance to the American Vitis cordifolia of Michacx than to $V$. vinifera. It in to be hoped that a tranalation of this uneful work may be pablished.

Letter Cards. - Mears, Langley \& Son, George Street, N.W., have forwarded us some letter carde which enclone a small shest of paper which allows mach increased space for writing. They will be very convenient for tradeamen's ordera, and most uneful for travellers. Long-winded correspondents for the prest are earneatly recommended to avail themselves of thin device.

Kew Guild.-We have received a copy of the Journal of the Kew Gwild for 1895, the pablication of which has been delayed on account of domeatic bereavement. It seems to bs as interesting as its predecentort, but we must defer fuller notice till another issue.

Midoleabrouah Flower Show.-The fifth annual show of the Middlesbrough Floral, Horticultaral, and Indastrial Society, was held at Linthorpe on Wednesday, July 24 , The thow was pretty much on the ame lines as last year, the size of the exhibition, number of entrien, and quality of the apecimens shown being about the same, and there was a good attendance considering the aninviting weather.

Cioer.- We are pleared to find that the National Aasociation of Cider Makers is taking energetic meanures to onaure more attention being given to the cider competition at agricultaral shows. The arrengeroente at present in vogue leave mach to be denired, and consequently do not attract the more important makeri to compete; nor can visitors be expected to evince much enthasiang in the cider ahed, where only a distant view of the cankl and bottlen is rouchsafed. The cider itself is taated only by the judges. In order to utilise the experience of othere, Mr. E. Samson, the Secretary, of 27, Clement' Lane, Lombard Screet, E.C., in going to attend nome of the cider competition on the Contiment, for this is one of thone thinge they manage better in France.

The weather of the Pabt Seabon.Under the title of The Weather of the Past Season (1894), and its Effects on the Garden, a little brochure has been pablished by the Rev. Canon Ellacombe, containing the sabject-matter of a paper read by him before the Bath Natural History and Antiquarian Field Club last December. The writer mentions the great difference in the climates of the yearn 1893 and 1894, and the effect of the variations in temperature of the latter neason upon various plants. The general conclusion arrived at appear to be that great extremes of weather are always more or leas idjurious to vegetation, and that any variety of moderate weather, while favourable to most plants, is sure to prove prejadicial to some few of them, or to the development or retardation of certain of their organ or functions.

Professor Eaton.-We regret to hear of the death on the 29 ch of June, of Mr. Eaton, the recognised authority on American Ferns. Profesor Eaton, who was in his sixty-first year, had been Profesmor of Botany at Yale College for more than thirty yearn. He eame of a botanical family, and a graceful tribute to his memory will be found in a recent number of Garden and Forest.

The Danger of Weed Killers.-We would draw the attention of all who handle weed-killers to the exceedingly poisonous element cometimes included in anch preparations. Mensrs. Spiers \& Pond were recently fined $£ 5$ and $£ 55$ s. costs for selling what wav alleged to be a preparation of arsenic, without entering the signature and address of the purchaner. The preparation was nold as a weed-killer, and is aid to have contained 75 per cent, of arsenic, and 25 per cent. of caustic soda, in all 2 lb .13 oz , or sufficient to kill 6000 persons. Apart from the danger which might result to those baying such mistures without due knowledge of their contents, there is no mall risk involved if ach violent poisons are left lying about in positions easily accessible to children and others igaorant of their natare or contents.

Phylloxera Certificates.-Some communications have reached us referring to our recent note on this nnbject, and requesting us to do our atcoost to get these vexatious restrictions removed, except in the cave of Vines. Oar powere are naturally very limited in auch a case, but we have never henitated in this matter from the first, and shall be pleased to support any scheme for the removal of these fatile and obnoxious regulations. On the occasion when we placed ourselves in communication with the late Lord Granvillis on the abject, we received the asual polite "non possumus;" but times are changed, and if those interented will only combine and make their views known, the circnmstances are now more propitious, as the foreiga Governmente at length are beginning to wee how aseless the rale are.

Mr. Bateman's Garden.-The sale of Mr. Bateman's villa and garden at Worthing is announced for Auguat 14. The garden, as we have had occation to state more then once, is small, but unique in character, highly pictural, and filled with the choicest hardy plants. It in to be hoped that this horticultural gem will fall into the hand of some appreciative pomemsor. That it should become an ordinary suburban vills garden again would be a very unfortunate occurrence.

Agricultural Machinery in Russia. Some two years since we drew attention, in a "Stock-taking" paragraph, to the uncontradicted atatement that the anthorities at St. Peterabarg had done a atroke of "imperial" baniness by importing from the United Staten a number of complete met of agricultaral implement-to encoarage agricultare in certain districts much needing the same. This might have been termed walkiag over the heads of nations, parties to tariff arrangements with the Rassian Government. Surprise was also expressed that the opportanity wan not taken advantage of to atimulate engineering enterprise at home. After a time the opinion gained ground, enpecially among
manufacturers in Lincolnshire, that "thim nond thing" hould be put an end to, and a chance ith by the lowering of import dutien to "outaibo makers and vendors; but this opinion did not otum hold in Germany, some capitalists there huth entered into negociations with the Rasaian Goven ment for the acquisition of lend on which to brild factories for the production of the above-mand implements, and such also as are required in harticulture. As to the success of the application mo know nothing ; bat it is now stated that the exiring tariff will be so modified as to nearly totally exchen foreign-made goods; and this "for the parpon of giving encouragement to native indastry." Verih, the ways of some Governments are wonderful!

Flora of the Sequoia Region.-Mr. Greare Hansen, of the Foothill Experiment Station of th University of California at Jackmon, Amador Conut, California, has prepared for sale sets or single dith mpecimens of illustrations of the Flora of the Segnin region. These plants will be of great service is stadents of the Flora of California, A pampla entitled, Where the big Trees grow, giver nome intereating details in the form of letters to anorb mpondent, and comprise a complete lint of theplath

The Metrical System.- The report of th select committee of the House of Commons remer mends:-(a) That the metrical aystem of wigh and measures be at once legalised for all parpom (b) That after a lapse of two years the metral sy stem be rendered compalsory by Act of Parlismath (c) That the metrical aystem of weights and meamm be taught in all pablic elementary mehoolamis necensary and integral part of arithmetic, and hid decimals be introduced at an earlier period of th achool carriculum than is the case at present.

New York Botanical Garden. - Il 250,000 dola, for an endowment fund having beat all subacribed, New York city is to give 200 selll of land in Bronx Park, and 500,000 doll, for balis ings, improvement, stocking up, \&cc. Efort wi atill being made to increase the endowment furh abscriptions to 500,000 dols. or more.

The Plants near the national Galler! -Tne Pulms and Masas planted ont on the namt atrip of tarf in front of the National Gallery gind very welcome relief to the rather nevere ithed architecture of that bailding, affording a him might be acted apon with advantage in contedind with other pablic buildings, where apace ellomi it being done.

The Gardens of the city of PardThe committee of the Paris Manicipality, to wit is entrusted the ornamentation and maintaman the parks, equaren, and gardens of Paris, the the area of which, reckoning only the lawne, tions, flower-beds, and bordera, is aboat 7o ho ( 1 hectare $=2.471$ acres), posseasen nutaries, mome in the Bou de Boalogne, othern in the mith Vincennes, and the Fleuriste atill at La Parcels. Pasay, and the tranafer of which to the ramply Princel il in progrem. The narmerien apply number of goung trees for avenues sad the ment, about 2000 a year destined for the with and walks, and about 50,000 woody and planta to be used in forming and refarnithing . At the Fleariste de la Ville, with its brapian decorative plants necesaary for furnimio s gardens are raised. The annual production of th cellaneous plante, raised for the decorain ant municipal gardens, amounta to more that of apecimen. Revuc Horticole.

Liverpool Window Garden Aasociarlat In The Liverpool Daily Courier we reaid twenty-first annual exhibition of flowern, mus. ander the auspices of this amociat Hall. Monday, 22ad alt., in St. Georges jubl number of exhibits arpassed that this year's total being 850 . In the competition there were 129 exhibita, and the reported that there was a decided impror
the gardene. Mr. R. R. Meade. King, who uazally anpplied the prizes, intimated that in fature, unless entirely new districts competed, the competition would not be repeated. Therefore entries from fresh parts of the city were invited, and the committee will have pleasare in sending competent judges to determine if gardens to be incladed in the competition are situated in a saitable peighbourhood. In the class for window and window boxes, there were eighty-six entries, and the judges reported that in rome of the diatricts the work wae very good.

Chromicle on May 11, a correapondent, Mr. Frrd. Turner, F.L.S., \&c., Sydney, New South Wales, June 15, 1 495 , obligingly writes as follows: "I notice you akk for informstion about the 'ti-tree bark that is aned for packing frait. One of the 'ti-trees' ('Tea-trees') referred to is Melalenca lencadendron, Linn,, the thick spongy bark of which is easily peeled off in layern, and when cat up fine is as light, if not lighter, than cork duat, and makes good packing material. Several species of the genas Melaleuca, Leptospermum, and even Callistemon, are commonly called 'Tea-trees,' thongh for mome


Fig. 26.-A new datsy: the beide.
M. Ed. Andre. - The lart volume of the Garden is dedicated to M. Ed. Axdrifi, The Editor has availed himeelf of the opportunity of enumerating the many titles to the honour and gratitude of hortioultaristes which M. Ander has won. M. Andsé has, indeed, won a foremont place an a landscapa gardener of the firat-clase, a traveller, \& gardendirector, a botanist, an anthor, and an editor. At the present time M. André, in apite of his work as a landecape-gardener, fonds time to act as editor of the Revue Horticole in aseociation with M. Carbierm.

Thee Bafk ubed in Packina Fruit.-In anewer to an inquiry that appeared in the Gardeners'
nuscountable reason many pernons of late yearn have erroneounily called them 'Ti-trees.'"

Apple Grapts on Pear Stocks.-Mr, Gafynt, writing in the Agriculthral Jowrnal of the Cape Colony, recommends the practics of grafting Apples on the Pear atock, eapecially with a view to circumvent the American blight, which, it eeeme, doen not injariounly affect the Pear.
"Thiouah the Copse:" Another Ramble after Flowera with Uncle Matt. (T. Nucsow \& Soxs, London, Edinburgh, and New York).-This little book is one of a serien written by Dr. M. C. Cooks
on wild flowers an they are found when growing, and is intended for the use of children of about the age of twelve years. The author aime at writing anch books as shall prove interesting as well as amaning to little folk, and he is avowedly carefal in his nee of scientific terms aud long names, leat, by their excensive une, he should dieguat his readera. Those who like reliable information conveyed in an informal manner should appreciate Dr. Coors's style. The hand-book before us is written entirely in the form of dialogne, light enough considering the sabjecte treated of, and interaperned with quotation. Needless to say, the children aak most convenient quentions, which lead up with napposed innocence to inatructive answers, wo gradually bringing out the information which "Uncle Matt" is evidently mont denirous of imparting. The book containe a coloured frontispiece, various illastrations in the text, and is got up in a coooured cover likely to pleate youthfal critics.

Blottina Paper.-We have received from Mearra. K. Cesio \&\& Sons, amples of "an entirely new electric absorbent Spongia blotting paper." It is very good blotting paper, and the heavier qualitiea woald do well for drying delicate flowers, mosese, \&cc.

Frutta Minori.-Dal Prof. A. Pucci (Ulerico Hospli, Mulano). A handbook contaiaing carefal deacriptions and cultaral direction relating, as the title tells, to Strawberries, Meloas, Carrants, Gooneberries, and Raspberries. The figares illuetrative of the habits of the plants and of the fraits peculiar to various species are good sad clear ; bringing out the alient characteristice of each very distinctly. The little work may be recommended to thone who read Italian, and who appreciate a small rolume of convenient nize for the pocket.
"The horticultuaist's Rule Book," by L. H. Bailey (London aad Now York, Macmillan \& Co.)-An excellent manal, which should find a place in every nurneryman's office-indeed, in every garden library. It contain articles on the natare, preparation, and mode of application of insecticider, fungicides, noten on plat diseases, injaries from birds and various animals, weeds, lawne, cements, seed and planting tables, and we know not whas beniden. It is written for Americans chiefly, bat nine-tenth of the book are equally applicable here.
"Histoibe des Plantes." - M. Baillon's remarkable work was nearly completed belore bis death. The last ienued part contains the monographs of the Pandanacere. Cyclanthacere, and Araceg. Ia the latter order M. Baillon follown the indications of Engler, without, however, attachiog the same degree of importance to the histological characters as the German Profesor does.

Bellis perennis The Bride.-A Daisy which is useful to the bouquet-muker and floral artist has been hitherto an unfuliflled want, bat a atrong variety, which will be sent out this sutama by Mears. J. Lambert \& Son of Trier, is asid to answer every refluirement of the florist (Gig. 26). The biossom is sema-globalar, of an enormous nize for a Daisy, furnisbed with a tall atalk, and pare white. In the opinion of gardeners who have seen the plant it ahould prove of value in bedding-out, and, owing to its inability to produce seede, will not become such a troublesome weed as other double-flowered Dainies. The agents for the sale of the plant in this country are Messre. Cannell \& Sons, Swanley.
national Chrybanthemum Society. - A very enjoyable outing was experienced by the membera of the above society on the 22 ad alt., when a party of 140, iaclading a number of ladies, paid a visit to the grounds of Barford Lodge, Dorking, by the kind invitation of Sir Trevor and Lady Lawbexce. Reaching there at noon, the company, after a short interval, sat down to dinner in a large tent erected in the ground of the Barford Bridge Hotel, Mr. B. Wrnve, the chairman of the general committea, preaiding. Au excellent repaat having been
nerved and fall justice done to it, the houser, gardens, and grounds were then visited, the whole of the glasshousss being thrown open to inspection, the condition of the Ochids and some charming floral features in the gardens calling forth well-deservod praise. Many then found their way to the summit of $B \times$ Hill, while others, at the kind invitation of Lady Lawanncs, looked through the mansion, and at five o'clock the whole party assembled for tea on the lawn provided by Sir Trevor and Lady Lawrenct. Tea over, a meeting way held in front of the manaion, at which Sir Trevor Lawrenca presided as one of the vice-presidents of the society, and in the name of the members presented to Mr. Robret Ballantine, the late chairman of the committee, an illaminated addreas and a handsome nilver inkstand, the first having engrossed upon it the realation passed at the annaal general meeting in February latt, recording the thanke of the members for Mr. Ballantine's great eervicee to the society in that capacity, and the inkstand also bore a auitable inacription. M. Balcantine having replied, a hearty vote of thank was pasaed to Sir Trevor and Lady Lawarece, emphaised by three hearty cheers, and the company retarned to town late in the evening, having experienced one of the most pleasant outings yet arranged.

CDER.-Ta hot weather remind us of a beverage which is hiphly acseptable at this season, and that is Nurfolk Cider. Mesart. Gafmer \& Son, of Banham, Astleborough, some monthe aince sent us anmples of various kinds for trial. All were fresb, clear, sparkling kinds, bat the "driest" were to our taste the best. There is no doubt that with increased care in the manufacture, the quality of the cider may be greatly improved and rendered more nuiform. Mesmis. Gafmer evidently are abreat of the times in this respect. Tastiag their cider in comparison with some of a vimilar quality fron Dovonahire, Norfolk took the palm.

Vegetable Agsimilation and Respira-tion.-Mr. F. Frost Blacaman pabliahes in the Philosophical Transactions, 1895, B, p. 503, an account of his experimental researches on thin sab. $j$ jet. The point specially to be determined was the channel through which vapours anter or leave the leaves; that is to say, whether throagh the cuticle of through the stomata. The general renulte are as follow:-

1. Uader normal conditions, practically the nole pathway for carbonic acid gas into or out of the leaf is by the atomata.
2. Ia young leavet the caticle aeems to be more parmeable to carbonic acid gas than in mature leaves.
3. If the atomate be mechanically blocked, an appreciable ommonis of carbonic acid gan may take place through the caticle, provided that the tenaion of the carbonic acid gae be great enough.
4. The normal amount of carbonic acid gas in the atmonphere is not sufficient to produce any appreciable onmonia into leal with ite atomat blocked; animilation, therefore, cannot continue under these conditions.
5. The experimental optimwn of carbonic acid gea for asaimilation depends on the atructural porosity of the leaf, so that, if this be redaced by blocking the atomata, even pare carbonic acid gas may not quite effect optimal assimilation.
6. To this, and not to the stomata being inoperative in gameous exchange (which was Botssingaulr's view), is due the fact that, in concentrated carbonic acid gae, leaf with ite atomata open asvimilates lens than one with the atomata blocked.
7. In bright light a fally green leaf asimilates all the carbonic acid gan that it is forming by respiration, and noee escapes from it. Garezav's demonatration to the contrary in oaly an expremion of the imperfection of the condition under which it was
made.

## The Evolution of a Lake.-Whildt Natare

 manages to creste laken of magoifcent proportion in her own way, artificia! lakew are usaally leas grond,though in relation to aurroundings often as bold and effective, and sometimes even more ornamental. There is to be seen jast now on Mr. Bertaam W. Currie's fine estate of Minley Manor, North Hante, a good example of the procesm of evolution in late formation artificially. The site is of a wild awamplike character, and prior to the commencement of operations, about as unpromiaing a site for the creation of anything artistic as could well be conceived. The idea seems to have been Mr, Currie's own, and the working of it out that of his bailiff, Mr. G. Profit. The water area, almost the whole of which is completed, though began but some sisteen months since, is sbout 50 acres, but it look to be fully doable that expanse. The margin is of a most circuitou outline, the ground having been managed so that where highest capes or promontories have bsen retained, whilat on the lower parts numerons baya or recenses have been formed. This feature in the formation of marked a kind that the entire circuit of bank can ba hardly less than 3 miles. Some inland have also been formed, that will be planted next autamn, as also will the extentive margins. Footpath and a turf carriage-drive will encircle the lake. On one bay a fine boat-house is being erected. The entire arface is now full of water that will in flood-time rise some 2 feet higher. The banks are of peat clods, solidly bailt, and into the tarves Willow slip have bsen thickly inserted. The soil is of bog, and, and clay. In a few jeara a large area of swamp will have been converted into a grand ornamental lake.

New Publications, - We understand that M. P. P. Dégérain han jaut published a book entitled Les"Engrais, Les Ferments de la Terre. The first part of this work is devoted to organic manures and mineral fertilisers, and the second to the fixation and utilisation of nitrogen in the soil. It is apecially stated that the instruction given in this book is of a thoroughly practical natare, and that it in not merely thoroughly up-to.date, but also worded ae to bring its content within the comprehension of all clastes of readera. The publishing-house is Ls Libraire Regef et Cite, 116, Bra'evard S\% Grmaio, Paria.

## Colonial Notes.

## JAMAICA.

Ter Buthetin of the Botanical Deparment, Jamaica, for June, 1895, contains, among other intereatiog matter, papers on "Coffue Peelers for Hand Power," and on "Coffoe Saparators." Is also includes a chemical analyais of the Orange tree, potash and phomphoric acid being the chief contitaents of the frait, an article on "Pimento and its Insect Foes," as well as the result of some lectares and demonstrations given throughout the parish of St. Mary by Mr. W. Cradwick, who hat travelled with the aim of inatructing the inhabitants concerning the unes sud properties of the plants possessed by them, of whone value they were often found to be utterly ignorant. By thus atimulating local entorprise and attracting attention to native resources, much good work in done in quarters hitherto neglected aod unworked.

## KEW NOTES.

Utricutabia rentrormis.-A plant of thi fine Bladderwort, obtained a few years ago from Mesers. F. Sander \& Co. as U. Humboldtii, is now flowering at Kew, and, at I believe, for the first time in cultivation. It is a native of Brazil, Gardaer having found it in 1837 in the Organ Mountains at an altitude of 5000 feet. Probably Messra. Sander \& Co. obtained it along with Cattleya Jabiata. It hav uniform leaven 5 inchen wide on talks 18 ioches high, which apring from slender creeping rhizomes bearing hair-like roots and aumerous ting bladders. The flower-scape is more than 2 fest high, and it
beart four or six pule lavender-coloured flow
at the apex 1 inch long and wide, the appom. like lip notched and cbannelled in the middo with an inflated chin-like creat bearing tho atresky of white, margined with purple, and the short hood-like apper aegment is blotched with the ame colour. The plant is likely to be more prias by botaniat than by gardeners, for it is not no good a garden plant as U. montans. The Roraima apecie, U. Hamboldtii, differs from the above in haviag epathalate leaves 4 inches wide on atalke 9 inche long, and a cape 12 to 18 inches high, bearicy about twenty flowers, which open three or fore together, and are of a rich purple-blue colour, fully twice the aize of those of U. reniformis. Mr. Im Than, who collected U. Humboldtii on Roraima, naya this it grow among rank grass in wet awampy part, the flowers mingling with the grass, and its roots in the ground. Here it is far more beantifal than when in the water contained in the sheathing leaf-base of Brocchinia cordylinoides, to which it is atrictly confined in some parts of Britith Gaiana. We have had it imported in plants of the Brocchinis, but it aere did any good, although the hout plant lived, and is now represented by fiae exsmples in the collection of Bromelias at Kew.

## Amasonia erecta.

This plant differn from A. calycina, introducel and distributed a few yeara ago under the nama of A. panicea, in having larger broader leares and aborter wider bract coloured bright scarlet, nhite the flower are nearly white with atreaky of purple An example of it is now in flower at Kem, sad \& figure of it will thortly be pablished in the Botamioul Magazine. Mr. Sinder, who imported this apecies from Brazil, aays that it was described by bil collector as being mach more ornamental than A. calyciaa, but so far it falls short of that specim in being more diffisalt to caltivate. It in dencribed as forming a shrub 2 feet high, and as being commol in woode near Rio. A specimen collected in Britiol Gaiana on mountaios near Kaieteur is labelial a growing to 4 or 5 feet in height. Ponibly win wrong in keeping $A$. erecta in a hot atove.

## Cenvum Roozemianum.

This is a valuable addition to atove Crinuma, If bas already been fally described and figured in the Gardeners' Chronicle, and I refer to it here chiedsfor the parpose of identifying it with the plastiatov daced from Jamaica by Mr. Worsley, and dencribed by him in hir Notes on Amaryllidece (1893), p. under the nam, of "C.Jumsaense? = erubenm var.' The typica! C. Roozonianumand Mr. Worley! plant havo lately flowered side by side at Kow, will they are exactly alike. Ose of the K aw plata beit an ambel of twelve white flowers, each fire indivy acrose, and deliciously fragrant. I can atrouply recommend this Crinam as an eavily-msanged, fow flowering atove plant, first-rate in every poiat,

## Hipplastrom braceyawdruy.

When Mr. Baker described this distinct and bat some species is Gardeneri' Chronicle, 1890 (2), pp 15 . we knew it oaly as having fowers' liko Amuli Bolladonna var, blands in the upper half and colorin. deep blackiah-red in the lower half of the etgen Plante of it flowered in the open air at Kor, wisw proved to be nearly hardy, and a figure of it publiabed in the Botanical Magazing lant yo 7344. Sired linge raised at Kew from seeds by the platat Ggured have juat flowered; bat in twow the flowert are of a pale pink colour in half, pale green in the lower half of the segrutur thedeep blackiah-red colour having quitedimppe fins Here is a atriking colour variation in the f of seedling raised from a good apecies introlsw from Parana in South America by Mr. Bartholod of Reading in 1890.

Etganta malacceneis.
There is fine specimen, 12 feet high, of handsome tropical ehrab in the Palmohonse al which has borne anoually for the lant excopsic crop of fraits. This jear it bas boen as woply phe prolific, the loxat branche being literally
with glosery purple-rose egg-shaped fraits, about 2 inches long. They are feshy, and not unpalatable; I have tasted worse Applen, but they were very bad ones. The flowert are even more ornamental than the fruit, the large brash-like clasters of stamens, of a rich crimson coloar, being the chief attraction. W. W.

## POTATO-DIGGING IN IRELAND.

Whisst near Tipperary in 1892, Mr. W. G. Smith made the accompanying sketch of Potato-digging. It reprenents the very worst position for growing Potaton, viz, a awampy bog. The plant in flower in the background is. Lythrum Salicaria. On the left are roll of peat from the position where the attempt was made to grow Potatos. The stump in the foreground is that of a bog Oak in situ. The Potatolifting was going on in rain and wind. The cottager and his daaghter were clothed in rags, and both were helpless and hopeless. In travelling
made a practice of cutting everything they have in bloom-good, bad, snd indifferent. It was pitiable to see poor little bunchen of half-developed Anemonen and Ranuculus forming a foreground to an exhibit, and these were only too representative of others. The crowded arrangement imparted an ordinary and monotonous appearance to the collections, and they lont much of their attractiveness and interest in consequence. The Council have such an ample choice of material with which to make this show that they should be eclectic ; a certain number of bunchen only being aaked for, and these should consist of the beat flowers in good condition at the time. The largent allowable number of banches might be fifty, and thene should be of good size, so as to adequately represent the plant; and there shonld be no duplicater. A limit being thus put to the number of bunches shown, the exhibitor should be required to effectively diaplay them in auch a manner that the individaality of each might be brought out. Farther, where aeveral varieties of one species are shown, or different species of one genus, they should be placed in juxtaposition for the parposes of comparison. This would make the Temple Show more
to be. It is a profuse cropper, some of the truase producing from seven to nine full-sized Tomatos. It is very firm and solid, with flesh of good flavour and unuaal depth, and very little seed space. Mr. Ryder inform me that he gets the beat price for it in the market. This year he has planted twenty houser of this one variety, and here it can be seen in all stages of growth, both from seed and catting: ; in fact, Mr. Ryder telle me that he gets heavier crops from cuttinge than from planta raised from seed. Amongat other Tomato that are cropping freely with no nigns of disease are Frogmore Solected, which is another good variety, of short-jointed, aturdy habit, and good-sized truesea of fruit, and which is likely to become a reliable market art. Polgate is another variety doing well ; but I fail to see any difference between this sort and Perfection, and Mr. Ryder tell me it is quite a fortnight later with him than Dake of York. Chemin, a French variety, is good, and fraiting freely; almo Golden Sunrise, a yellow variety, carrying good trusees of large handmome fruit. All the above are growing side by side in one long houne, to teat their cropping qualities. Mr. Ryder never stops bis Tomatos, but grows them on the single tem right over the houste. F. London, The Gardens, Becchwood, Farnborough, Kent.

Gardeners'Characters,-Iamglad"H. M.C.' is calling attention (through your issue for Jaly 13) to one of the mont serions circumstancen, namely, the refusal of employers to give characters. I have been gardening for seventeen years, and I find, generally speaking, the most promising youths and the most able men are those most anfortanate in this reapect; concequently, they are prevented from following the occupation they were enpecially fitted for. I wish some of the candidates for parliamentary honoura would make it a test queation, so that it may be dealt with effectively in the Honee of Commons. One Interested.

THE HARDY-FRUIT PROBPECT8.-I think we ahall be favoured with a very fine fruit season. The scarcent being Apples in orchards. Thewe, upon nome trees, are very thin, notably Blenheim: and Ribston Pippina, Wellingtons, amongat the mont useful varieties we have. Trees of Lord Derby, Warner's King, and aome amaller varieties are loaded with fruit. Pear-treen have an excellent crop on the walls; have had to thin heavily, especially Pitmaston Ducheas, Catillac, Marie Louise, Louise Bonne, Knight's Monarch, Doyenné du Comice, and Ne plan Meuris. Cherries are good. Peachen and Nectarines are an extraordinary crop. Oat of curiosity, I counted 500 fruits thinned from a four-year-old tree of Sea Eagle. Apricots very good and large, the Shipley being the bent. Plums are a wonderful crop, both Greengages, culinary, and demert varietien, and we have had to thin them. Gooneberrien, Raspberrien, black, red, and white Currants are a good crop. Strawberrien have been, and are very good-in fact, the bent that I have had here for the late seven years. Cobnute and Filberts are bearing heavily, and Walnuts very abundantly. The Quinces and Medlars have only a fair crop of fraits. A good rain would be very beneficial, as the rainfall for the last two monthe has been considerably below the average. We only had rain on aix days in May and early June, and it practically did good only on three daya, and the whole was under three- quartern of an inch. W. A. Cook, Compton Basset, in June.

PLANT DECORATION.-Few men did more in their time to promote highar and more artistic taste in relation to plant decoration than did the late John Wills. It is perhapa poor praise to way of some of thone beantifal efforta neen in days past at South Konaington, that they were revelations. Practically, Mr. Wille revolutionised our atyle of plant decoration; very likely, had he not done so, some one elne would, but at least he was the pioneer, and immediately he found myriad of dinciplen. Still, he did not convert every one from their heary atereotyped methods. Twenty years of pernistent illustrations of the higher art in plant decoration by Mr. Will or other able imitatora have not sufficed to eliminate much of the old Adam of decorative effort from gardening, just because there are so many would-be gardeners or decoratora who have no more care for taste, elegance, or harmony in plant decoration than has the mereat tyro. Try all they may, they produce a jumble, or a mere atiff, formal bank of plants or flowert, and no more. Will went to Nature for his conception of a plant group. If we conceive of tropical life, with ite overhanging Palms and Fernm, and beneath its
arpet of flowerk and leafage，or even of our own woodland or forest scenery，with it panoply of leafage，and carpet of bracken or other undergrowth， we get a fairly good idea of the origin of his deaign．He，however，had at his disponal choice material，yet he never sought to make too mach of his colouring，or fell into the common error of making everything subsidiary to ⿴囗⿱一一 Soral effect．His larger groups were made wo an to retemble glades and vistas，and they were always as cool and refresh－ ing as they were besutiful，yet they were never ng Disciples have since his day given to ns gandy．Disciples have since his day given to us aly flower hows many charming groups，though only the few have atood out as real decorative artists． Too much of the beanty and taste we do see is rather imitative than natural，bat we may be thankful for mo much．Some day，perhaps，in these thing the higher tatea may univerally prevail． A．D．
lUCULIA CRATIBEIMA．－Thim handeome shrub， when grown well，may be deacribed as one of our best greenhouse plante．It thriven best when planted out in a bed in a mixture of fibrous loam， peat，and and，and requires abandance of water duriog the summer monthe when it is making itm growth．Opiniona vary considerably regarding the pruning of Laculias，but natarally enough，if they are praned well back after flowering，and the plants kept dry until growth commences，sarely this mas be the right way．We have two fine specimena here which were treated in thil manner last winter，and which now present an appearance which justifies the anid treatment．The propagation of Luculia is by no mesna an easy task，but the best method I know is to insert cuttings of young shoote into small pots about midoummer，place in gentle heat，and keep enclosed under a bell－glass．Seedling planta grow very rapidly，but seldom flower so well as those pro－ duced from cuttinge．Geo．Burrows，Warwick College

LARGE CEDAR8 OF LEBANON，－Apropo of the enquiry which appeared in thene pages a few weeks ago，I may aay that some of the finent Cedar trees in thim country are to be found at Goodwood Chichester．In an old book I have before me I find that in the month of April，1760，the third Dake of Richmond planted 1000 Cedars in various parte of his domain，the plantn being then four years old． Of courne，in the period that hae elapaed many have nuccumbed to galen and other mishaps，but many noble epeciment remain，and appear to be in great vigour，forming one of the glories of Goodwood． One apecimen in particular is a very grand one，and it is figured in Mesarg．J．Veitch＇s work on the Coniferm，though evidently the measurements given there are incorrect；an I find，by pansing the tape round it to－day，the girth，at 3 feet from the ground， in 25 feet 8 inches．The tree hal a diameter of crown，measuring from tip to tip，of 128 feet，and is more than 90 feet in height；it has a clear stem of 6 feet，from which spring a number of enormous branches，sud the form of the tree is quite sym－ metrical．Three other large tree growing in close proximity to this one have clear atems of from 6 to 8 feet，and girthe，at 3 feet from the ground，of 22 feet 2 inchen， 22 feet 9 inches，and 21 feet 8 inches reupectively．These brees have been messured from time to time，sind a record kept；and the earlieat I can find is 1857，when the second largent girthad 19 feet 7 inches ；1863， 20 feet 4 incher； 1892, 22 feet 7 7 inchen，Rich．Parker，Gardems，Goodwood， July 8.
geEDLINa FUCH81A8．－The abundant rain is putting new life into regetation，and the Fuchaias are making up for their hitherto tardy growth．I am sending a few bloom gathered chiefly from the open garden，of crosses of the Fachsia，which you will observe differ much from the ordinary varietiea in colour and shape of bloom；the growth is vigoron： and flowers are abondantly produced．No． 1 has coppery or dark foliage with veins in the leaf；No． 2 it a seedling of thin year，and chould prove a very telling variety，the colour being quite novel．Aagust is the beat month in which to see Fachsia in bloom． P．F．［These blossome were peculiar in tha colour of the sepals and corollas，but that they are improvements in the beat sente we can scarcely admit．ED ${ }_{2}$ ］
fell in heav rainfall in Yobicahine－Heavy rain fell in thit district from 9 a M．on Tharaday，Jaly 25 ， depth of rain hour the following moraing，and the depth of rain regintered whe 270 incheis，which in the mont that has fallen here in twenty－four hours in my recollection．The heavient fall oceurred in
the afternoon and evening，and wat accompanied with thunder．Whether it was merely local I have not getascertained；but it is probable that such a downpour extended for a few miles around．The downpour extended for a ground is thoroughly maturated，and vegetation in gardens and fields will be greatly benefited，espe－ cially the fruit trees．If we get fine warm weather， this will be the finest fruit year we have had for many yearm．J．Easter，Nostell Priory Gurdens．

NATIONAL CARNATION AND PICOTEE 8OCIETY （Southern Section）．－I notice in the report of this society，the question is asked，for what purpose ara Carnations shown with a mingle apray of foliage： The words are these：＂Blooms of any single Carna－ tion with a aingle sprsy of foliage were also shown， One can acarcely help asking，for what purpose，as they suggested nothing new in design or une．＂What does the Gardeners＇Chronicbe reporter want？The public has more than once been informed in these pages，that showing Carnations on card is very bad taste indeed．It was，therefore，suggested that the bloom be shown as cat from the plant，with a spray of foliage ；there was no other purpose．The Carna－ tion is almost universasly used as a coat－flower，and showing different varietie with foliage might saggest to those interested the best varieties for this purpose， and to those intereated in the cultivation of Carna－ tions，it would how the flowers just as they are． Varieties that aplit the calyx are no use to exhibit with a spray of foliage．Jas，Douglas．

RUBUB PHEENICOLASIUS（WINEBERRY）．－ Within titty Farde of West Malling gas－works，in a private garden，the produce of which is sold in the town adjoining，we find a row of the Wineberry of the Japanese growing in the finent laxuriance， 5 to 6 feet in height，and clothed to the ground with its clasters of fraits like the specimen enclosed．The gardener informed me that three yeara ago he par－ chased a packet of Wineberry seeds for a few centa from the Contiaent．These were nown ；and after waiting nine months，the plants here came ap．Is it that the dry umomer has been favourable to the growth of this plant？Seen as it is here growing，one cannot but think why it is not grown in the herbsceous border and in our shrubbery borders，for its sof copper－colour tints of the stema，and the whiteness of the under－side of its Raspberry－like leaves，forms an object that the eye catches at once．My informant tell me it fruits abundantly，and that the Mulberry－like fruits are relinhed at the end of Auguat，when they are either sold or made presents of by the proprietor． Propagation appearn to be from meed or layern there do not appear to be many anckera from the bottom．P．F．A．

THE PHYLLOXERA LAW8－It is to be hoped now that the Belgians［French］and Italisns are meet－ ing for the express purpose of expanging or maode－ rating the obligations and reatrictions hitherto imposed upon them by the Berne Convention many years ago，that England will now endeavour to free herself from the burdentome regulations，and not fail but hasten to throw her influence into the matter of mecuring the free exportation of plant into all countrien，Nareerymen and caltivatora of plants generally have been severely punished during the lant fifteen years by these aselens regulations， and probably for absenting ournelve from the above convention inatead of attending it and showing the abourdity of including this country among thowe likely to apread the Phylloxers．Even the curators of our botanical gardens have aince had their plants ruthlennly returned by Vine－growing countries，no matter how necessary or important for the well being of mankind they may have been，and that too occamionally when the certificate had been duly aigned by a commissioner for oath．I hope the council of the Royal Horticultaral Society and our botanical wocieties，as well at the horticultural trade generally will lose po time in electing an infuential delegat to reprenent England at the meeting to be held on the 4th of this month，and in doing all that lies in their power to confine the reatrictiont，if any are impoed，to Vines only，so that our plante and balb may po free from all hindrancer，and trom usele： expense and obligation．H．Camell，Suonley．

Cinerarias．－Mr．J．Miller，late of the Dardham Down Narseries，Bristol，sent me ap to Isleworth in 1833 ，to Mr．J．Willmot to learn market parden ing，but anked me if I saw anything new or good to let him know，which I promised to do；and a I had a little leinare，I made a todr of all the nur－ werien of any note；Mr．A．Hendermon wat then fumous for Cape Heath，I remember．Of these

Mr．Miller had about 110 pecien and varietien no that was a place of interest to me；st Menm Lee＇s of Hammersmith I saw some； 200 or mom， Fuchaia fulgens just ready to be sent out at $2 \mathrm{l}_{\mathrm{s}}$ ead and so all round．Mr．Loddiges was then at Hacton Mr．H．Low at Clapton．Bat it was at Mr．Kaigh of Chelsea that I saw a whole house fall of Gin rarias in fall bloom，and one blaze of brigh colour，mostly rose of various hades，some almon scarlet．I atill remember it as a sight I had nom wituessed before．Oi courne，the person whom showing me round arw my amazement．Bat Im not certain if he told me that they were crones be tween cruenta and populifolia，or if it wat only conjecture．I have，however，the impremion the were crosses，but this particular lot mast have bow several generations old even then；at least this m my impresuion，or I was told so，perhapr．Cruente as I knew it at the Durdham Down Narserien，wad a much dwarfer habit than the one figured nome lith time since in the Gardeners＇Chronicle，and had asger flower，but populifolia，as I remember it，wat ang of half ahrubby species，with shorter，wider petal of a violet－purple has．The above stated viit ma in the spring of 1838，when Kew was quite a con trast to what it is now，and when the Horticultona Gardens at Cbiswick were much larger than nom I have always thought that Mr．Knight was the find to work apon the Cineraria，and had no ideato the contrary．George Lee，FR．B．S．，Clevedon．

## WHEAT－EAR PELARGONIUMS．

Mr，C．G．Terery obligingly sende an ape cimen of a zonal Pelargoniam（ $\mathrm{G}, \mathrm{a} .28, \mathrm{p}, 135$ ），il which each flower of the truas is represeated by a sike of densely packed linear green brach， no trace of the flower being apparent，Wh have occasionatly met in Pelargoniums with thil malformation，which is identical with that in Smet Williams and Carnations．Oar forefather aned to spak of＂Wheat－ear Caraations，＂and we my extend the epithet to Pelargoninms．

## DEYON AND EXETER GAR DENERS＇ASSOCIATION．

Tere fourth annual outing of the Awociaton tow place on Wedneaday，July 24，when aboat member started from Exeter in braket， visited Poltimore Park，Bradfield，and Kuigh haye．At Poltimore，Mr．J．Martin，the ar dener，met the visitors，and conducted them ord the gardens and grounds．Oatdoor fruit has why been a feature at Poltimore，and the prestige in mad maintained．Apples were particularly fine，sour dant，large in size，and even now showing fine color The Grape Vines are well cared for，and are croping heavily．The kitchen garden of 8 acres was in cellent trim．In the grounde the Lime tree sean of 1000 feet in length，which forms a delightis canopy of foliage，was worth going a long ditay to see．

The avenue of Cedrus Deodara is s fine ous trees averaging 65 feet in height，and about 10 uti girth．Several of the treen were bearing cont in having 100 to 200 on it．The Wellingtonias sith timore are well known．They were amoagt the planted in thix coantry．One of them is 85 淪 high，with a girth of 16 feet；and anothar is ontith with a girth of 20 feet 6 inches．Abies 58 feet，with a girth of 9 feet；Pina find 72 feet，girth 12 feet 6 inches；and taberculata， 56 feet．This specimen peculiarity of the variety in having is andy dotted all over the trank and maia tree， 1 ， A few cones were found undernestion the the bit was pointed out these had not dropped of come down with fallen branchen－．Liriodendron tol doen not drop its cones．Liriodendran Magnolia Soulangeana，Taxodinm Before Hemiock Spruces are good here．Bore Mr．Martin，by desire of Lord Poltimore， his visitors to lunch．

Continaing the drive through the tom iampton，in which，in Col．Fontern gardern fashioned one－there was pointed fath throush clump of Ommada regaliw，quite 10 fetbtirold
over 5 feet in height, flowering profasely. It was close to an old well, hence ite vigour. The next halt was at Bradfield, where Sir William Walrond' agent (Mr. C. E. Hay) was waiting to give a bearty welcome to the voyagers. Under the guidance of Mr. T. Heath, the gardener, a tour of inspection was made. Grapes were found to be first-rate. Gro Colman, Black Alicante, Lady Downea' Seedling, Fouter's Seedling, and Barbarossa, all very fine. Outside, Marie Louise and Winter Nelis Pear were howing heavy crops, and one or two Apple srees were well hung with Mistleto. In the grounde wers remarked Retinospora squarrona, 20 feet; Salisburia adiantifolia, 30 feet; Sciadopity:
another nine-mile drive was made to Knightebayen. Mr. J. Dickson, who came from Keir House, Bridge-ofAllan, only aix monthe ago, was in waiting for his confreres, and piloted them roand. Everything in the fruit line that was in bearing was the very pink of perfection, Peachen and Nectarines on screens being masterpieces of cultivation. Grapen were equally good, Mascat Grapes splendid; indeed, the "glass " was about an well done an it could be. In the open, thinge were equally creditable. The cropa and the tidy appearance of the place, taken as a whole, were such as to show that the race of Scotch gardenern in not a thing of the past.

A drive to Tiverton to tea, and a 15 milen drive


Fig. 28.-wheat.mas perarconiome. (sum p. 134.)
verticillata, 8 feet (a grand piece); Abies grandia, 65 to 70 feet (planted in 1871); and Chamærop: excelsa, 12 feet, were noted. Near a comparatively recently-formed Arboretum were nome abtropical subject doing well. Fankias, Osmundas, Spiras Lindleyans (a grand abrub), and other anch plants were mont effective.
In the flower garden the Golden Yews were uncommonly fine. Some eventeenth-century English Yews planted on the aite of an old chapel, dating back to May 17, 1332, were pictures of health and contentment, and were trimmed in the old-fashioned fantastic atyle. There is at Bradield a fine avenue of Cedrue Deodara, and snother of Oak.

Sir William Walrond, with his usual hospitality, had arranged for an excellent lanch for the party, and they having had a long drive and a long ramble, this wan much uppreciated.

Having again got the travelling inspectors aboard,
home, ended one of the most pleasant and instructive outinge the Asaciation ham yet held. The arrangements, carried out by Mr. A. Hope (Hon. Sec.), Mr. W. Mackay (Hon. Treas.), and a committee, gave general estiafaction.

## SOCIETIES.

## ROTAL HORTIOULTURAI. <br> Scientific Committee.

Jotr 29.-Dr. Matterv, in the chair.
Cypripedium Malformed,-Dr. M. Masters deerribed a curious case received from Messrs. Sander \& Co , in which the sepals were normal, but the two petals and lip were abtant, The columa was erect, terminating in, imree tabilar atiguas, and beariog three petaloid, two-Lobed, imbriesting staminodes on the edge of one of which whe an anther. They appeared to
of the inner whorl was perfect, with a curved flament bearing two-celled anther. The other two were absent.
Lavandula dentata Foliage. - Dr. Mastere aleo drew attention to a peculiarity in the venation of the lobed leares of this species, in that the "median" cord of each lobe was not central, but close to one side. Froms this a cord ran round the sinus, giving the appearance of the corde running from the midrib to the base of the incisions, instead of to the epioee of midrib to the base of the incisions, instoad of to the apioes of Hawtborn, but this has median corde as well as cords running Hewthorn, but this has median corde as well as cords running
to the base of the incisions; or, again, that of the corde in the to the base of the incisions: or, again, that of the cords in the
petale of the Composite, which run up between the petale and petals of the Compositee, which run up between the petale and
roand the margins of the divisions A very aimilar coourrence is in the receptacular tube and calyz-limbe of the Cherry. though here, too, esch sepal-lobe has it proper median cord as well. Marginal cords are general in the calym of Salvia and other Labiaten, and appear to be supplied for strengthening purposes,
Aicidium Nympheoider, D.C.-Dr. C. B. Plowright forwarded specimens of thin parasitical fungus, with the following observations:-" This 平位diuma has beon stated by Cbodat to be connected with the Pucciaia on Scirpun lacuatrie. In November, 1877, Puccinia Bcirpí was found floating in the river Ouse at King's Lynn. During the past winter II found it on the Bulrushes (S. lacustris) in the 'Old Bedford 'at Earith. Huntingdonshise. On revieiting the spot this July, the Ecidium on Villarsia was met with in great abundance. The recidial cupsoccupy the upper surface of the leaves in the form of sufficiently obvious circular yellow spots. After the affected leaved have been removed from the water for a short time the mouthe of the cups close by a procens of inversion, as if they were immature; but when the leaves becone thoroughly dry the cups again open. The scirpus in the immediate vicinity of the Accidium was affectod with the uredospores."
Ecidium Chenopodii.-Dr. Plowright also sent specimena of this fangus, with the following remarks:-"In the samanes of 1893 Mr. Herbert $G$. Ward found on the mud flate of Terrington'St. Clements, an Ecidium on Sueda maritima. Shortly afterwards I met with the same fungus on the muddy shore on the opposite side of theentuary of the Great Ouse, near Babingly sluice. It was accompanied by uredoapores and a Uromyces (U. Chenopodii, Duby) on the same plant. By some botaniste this fungus is regarded as identisal with U. Balicornies, D.C. on S. herbaces. Doubtlees the host plants are allied, but it does not, therefore, follow that the parasitic fungus is the same. Salicornia herbecea grows abuodantly in the abovenamed localities, but hitherto I have been unable to find the Uromyces upon it, although it is a British species."
Flies attacked by a Fungus.- With reference to the specimens brought before the last meeting, it is reported from an examination made at Kow that "the fungus is Empuss conglomerata, Thaxter (a somewhat rare apecies), parsaitic on Diptora, empocially the larve and itragines of Tipuize. Dis-trib.-Europe aed United States. This is the first record for Britain."
Grapes Diseased. - With reference to the samples sent to the last meeting, the following report has been reosived from Kew:-"The Vines are attacked by a fungus called Glueosporium ampelophagum, Sacc, a well-known pest in wineyards. The mycelium of the fungus is perennial in the branches, and passes into the new shoote as they are developod. The first fruits formed by the fungus in the spring are found on the old wood, and the apores carried by the wind or rain or syringing wood, and the spores cang frutt, the mycelinm aleo travels reach the lowers and youg haik, ine mycerium aleo travel
 mixture of equal parts of thar and powdered chalr should be applied to every part of the Vine, dating from the commencement of branch formation until the fruit is aet. All
shoots that are more or less covered with minnte black specks shoots that are more or less covered with minate black specks
should be cut away and burat at once, as these ase the fructishould be cut away and
fication of the fungue."
Thornless Gooseberry.-MM. Letelletier ot File forwarded from Caen some growing plante of this variety, from which they have iovent some linds raised by M. Ed. Lefort, of Meaux, France. The asual triple spines were either quite absent, or represented by mere rudiments only.
Potatos grown in "Jadoo" Fibre. -Jadoo fibre appears to be peat-moss saturated with chemicals. The Potatos were very clear, clean, and apparently thin-akinned, but amall. The Committee could pass no opinion upon their value, as no information was received as to the composition of the material in which they were grown.
Suceet Williams, Sudden Reversion of.-Mr. Cannell sent some trusses, with amall jagged-edged petale of a crimason colour, which had appeared among his long-selected bede of Sweet Williams, the margins of the petals being rounded and smooth. The form which, on its appearance, is never allowed to set soed, approzimated to the original wild condition, an dencribed by Gerarde, this being apparently the onily knowe form in his day (1597); but Lawrence (1728) describes many kinds, and observes that similer whole or eelf-coloured forms occasionally appeared. The following are quotations trom the two authore:-Gerarde (Herbal. p. 479, A.D. 1597) figures and deecribes the "Sweete William" as of a "deepe figures and describes the "Sweete William the of a doepe kind. Lawrence in "A New System of Agriculture" (p. 42d, A.D. 1726) says:-" There are two or three sorte of this pretty Hower; and, indeed, the sorts are almont infinite if you nicely observe the divarsity of stripes and coloure, and the aportings of nature even in flowers on the same stalls, there being hardiy to be found two exactly of the same sorte, exoept ther prove (se they do sometimes) solf-coloured. The single ones differ only in the colour of their flowers, some ane red and white prettily intermixt; others are mixt with a deep crimeon. and from their seeds great varieties bave been raied. There is also a double flowering kusd of a beatiful red."

Fruit and Vegetable Committee．
Juir 26．－A special meeting was held at Chiwwick Gardens on the sbove date，Mr．Balderson in the chair；also present Memorn．Glen，Wythea，Batea， G．H．Sage，Farr，Rons，Pope，A．Dean，and A．F Barron．Lettuces as growing firtt had attention． These in numerona varietien，both Cos and Cabbage were dealt with as they were found，irreapective of newness or otherwise．
Three marks were unanimonsly awarded to Romaine Grise Monachere，a very handsone and perfect stock of Paris Green Cos，also to Romaine Ballon，or Superb White Cow，both from Mesars．Bemary，also of Cabbage Leettuces to a smooth－leaved Mesors．bewne，also of（Benary）a first－rate stock，some White variety，Satisfaction（Benary），a frst－rate stock，and hing after Leyden White Dutoh，of good modium eize and ompact；to Grosse Brune tetue，a large copper－coloured form，a capital atock；to Merveille des Quatre Saisons，also a large copper－colouved variety，from Menst．VlimORar．A handsome \＆\＆onge palegreen，curled variety，Royal Malta，fron Eandisor 2 Sons，and Iceloal，somewh
from Mesars．Virtori as Song．
Dwarf Franch Beaws．－OI theee，out of a large number growing for trial，particularly good，indeed highly meri－ torious，in Longfellow，sent by Hevdersos of New York． This is a fairly strong grower，an immense cropper，the Beans long，narrow，and of the best fiavoar．This will doubtless become a standard variety．Seed is of a medium aize，and reddish speckled．Also to King of the Greens（Vilmorin），a dwarl，compact and very green－leaved and podded varioty，a good cropper and of excellent quality，seed smallish，flat，and pale－green in colour，To Dwarf Rarly Mangetout（Vilmorin）， a very early variety．pods fairly long，and densely pro－ duced．This variaty is evidently one of the carliest in culti－ vation：roundish white seed．Also to Butter Bean Beurré Doré naine（Vilmorin），a wonderful cropping variety，apparently one of the very best of the section．The Beans whan cooked were delioious，as also were those of Longfellow．
Owing to the previous drought the Pous were so far a failure this season that they were not fit to examine．A splendid trial of Braseica is in progresa，the plante having done wonderfully well．These will be at their best a f：$w$ weeks later，as also will a considerable breadth of Potaton．
Fruits．－The attention of the Commitcee was next direoted to an early Plum carryilg a good erop of fruit on a western wall，that had given fally rice fruits so early as the 19th of July．This was Rivers＇Rarly Favourite；the fruits small，parple in colour，flesh very anft and pleagant，and at a delicioas flavour，freestone．The Committee unani－ monsly agreed to recommend a First－clase Cortificate to this moet valuable addition to our early dessert Plums．The atton－ tion of the Committee was also drawn to a number of standard Gooseberries worked on clean stems，some 3iffeet in height＇；the stock is that of Ribes anreum，grown cloee by specially for the purpose．Currents also work freely on this admirable atock， which is a strong grower，and soon produces tall clean stems． A number of Morello Cherries on a north wall worked on stocke of Cerasus Mahaleb，were also noticed；these produce very strong growths indeed as compared with the poor growth of Morellos on the common Cherry wtock．

## EUREEY FLORICULTURAL．

Jour 24，25．－The fifty－firat annual exhibition took place on the above dates，in the grounds of Brockwell Hall，Herne Hill，by kind perminnion of J．J．Blackburn，Esq．

For a group of plants arranged for effect，iet honours were secured by Mr．J．Lambert，gr．to H．W．SxaELCKE，Esq．， Elfiadale Lodge．The Crotons in this collection were well coloured，and good use was made of Francos ramosa，An－ thariums，Oncidiums，Gloxinias，\＆c．A ereditable arrange－ ment from Mr．W．Farloy，gr．to J．C．Lovell，Req．，Tulse Hill，was placed Ind．
For six foliage plants，Mr．Howe，gr．to H．Tate，Req． Streatham，gained 13t prise with magnificant examples of Alocania Tribautianum，A．macrorhiza，Dracsen Lord Wolse ley，D．Goldiann，te．Mr．Howe occupied the tame poxition in the cines for aix Ferns．
For six Draceenas，diatinct，the lat ponition was gained by Mr．LaMBERT；and Caladiams were very well shown by Mr W．FAlkLey，who took let honours．
Foliage Begonias formed a pretty feature，lst honours for a fresh，distinct，and even lot of plants being gained by Mr．J． Swaine，gr．to E．Joxie，Beq．，J．P．，Clapham；whilst a very creditable exhibit gained 2nd place to Mr．A．EniEN，gr．to W．E．Joherson，Esq．，Tulse Hill
Palms were well shown，the leading prize－takers baing Mewors．Lambert，Dhy，and Longlix．A magnificent ex－ ample of Kentia Fosteriana secured Mr．LAMBERT the leading porition in the clase for a specimen foliage plant．In the clase for sif Fucheias，some finely－flowered plants were shown by
 the same exhibitore wouring $18 t$ and 2nd prizes respectively for froely bloomed Begonias．Potumise were good，Mews．FirLex and Rofe mowing well．
Well－colowred Coleused were ntaged by Mewors，Boze and
For
For four miscellansoun plants Mr．W．A．Chalk，gr．to of Asparagus plumous，Adiantum tragrantisuimum，piece Groton Baron F．de Rothschild．

For a bor of cut flowers，gracuful arrangement gaised

Mesars．Sutror \＆Sons offered special prizes for a collection of Vegetables．The winneer of the lst prize was Mr．W Farlex，with fine examples of Magnum Bonum Caulifiower Tender and True Bean，Perfection Tomato，Eareka Pea，\＆c．
Mr．Silver also offered special prizes for a collection of Vegetables；here the succesaful competitor wan Mr．RoFE noteworthy being Perfection Tomsto，the Mummy Pea，Early French Horn Carrot，Potato Coloseal，\＆c．For three bunche of Black Grapes the 1nt prize was a warded to Mr，W．Howe fo very fine Madreeffeld Court，and he also secured the prizee for White Grapes with Muscat of Alexandria．
Non－competitive exhibrts．－Messr3．Join Lativg \＆Sons， Forest Hill，sent a group of foliage and flowering plants， Foegonias being apecially good；Mearrs．J．Peed \＆Sons， Begonias being specially hood；Megoars．\＆c．；Mr．B．Neal
Norwood，sent a good group of Benias， Norwood，sent a good group of Begonias，\＆c．；Mring plants，and a collection of cut Roses；Mr．F．Frevor，Camberwell Green， Floral Decorations，\＆o．Mesars．W．S．ILes \＆Co．，Camber well，sent a good collection of garden Pottery．

## IRENTHAM HORTIOULTURAL．

Jour 25．－The eighth annual exhibition was held in the beautiful gardens at Trentham，and the display was even better than ever．Mr．Harry Veitch，of the Royal Exotic Nurneries，Chelses，in responding to the toast of the judges remarsed，that in aome departmenta the exhibite were better than any that he had witnessed in London．

## Groups

In the competitive classes the groups of miseellaneous plants arranged for effect were，as usual at Trentham，of high merit， and the judges had difficulty in satistying themselves，so c＇ose was the competition．Mr．Edwards，gro to the Duke of ST Was the competition．was placed lst with a charming group consisting of Albans，was placed 1st with a charming group consisting of ramosa，Alocasis，finely coloured Crotons，Ferns，Caladium argyrites，\＆er．2nd，Mr．C．H．Wright，Halston，Coventry with a collection including Aralia Veitchii，Areca lutescens， Pancratium fragrans，\＆c．Flowering Begonias were also used in this group with pleasing effect，the Selaginella cessia formed part of the groundwork，intermired with Maidenhair Ferns．
In a similar class，open to persons who do not employ more than one gardener，the lat prize was taken by F ．J Madnock，Esqu．，Alsager（gro，Mr．Smith），who had a neatly arranged group，consisting of Inora coccinea，Lilium auratum Palms，nice Cattleyas．Caladium argyrites，Ferns，\＆c．；2nd C．8．Jowes，Esq．，Stoke（gr．，Mr．Gibbs），who introduce Anthurium Andréanum，Cissus discolor，Coleus，and a well grown Areca latescens into his group，with Ferns，mosses，\＆c

## Roses．

The queen of flowers is always dominant at Trentham，and this jear the competition was very keen，grower，coming from all parts of the United Kingdom．The premier honour was secured to the Emerald Lisle．
Forty－eight Distinct Blooms，－lst，Mesurs．ALEX．Diokson \＆Son，Newtownards，co．Down，with fine blooms of Her Majesty，Marchioness of Londonderry，A．Colomb，A．K， Williams，La France，Senateur Vaiwe，thsir new seedling Earl of Dufferin，Duchess of Bedford，Mrs．J．Laing．Dr．André， Louis Van Houtte，Victor Hago，Helon Drew，Kaisorin Augusta Victoria，\＆c．；2ud，Mesors．Perkims \＆Sows， Ooventry，who had excellent blooms of Caroline Kuster Madame Eugène Verdier，Souvenir d＇un Ami，A．K．Williams， Madame Marie Verdier，\＆c．
Thirty－six distinct single blooms．－This class brought six competitors，the best collection being one from Mesers，HABF ress \＆8oss，Bedale．York，which included good blooms of A．K．Williamas，Her Majesty，A．Colomb，Maréchal Niel，J． S．Mill，Mra．J．Laing，Duchoseo de Morny，\＆ec．2nd，Messrs． A．Diekson \＆Sons．Kaiserin Augusta Victoria，Her Majesty， A．K．Williams，Victor Hugo，and susanne Mario Rodo canachi，were noticeable in this atand．
Twenty－four distinut blooms，three trusses of each．－Among nine competitors，the lat prize collection wis one from Messra， A．Dicissor \＆Soys，and amongat the blooms beot represented were Merveille de Lyon，Her Majosty，Mrs．Sharman Craw ford，Captain Haywood，Gustave Piganneau，Mario Banmann， John Stuart Mill，\＆c．2nd，Mesars．PEREINs \＆Sons，Coventry． Here were good trobles of Dulvo of Teck，Louis Van Houtte Marie Verdier，Madame Joneph Bonnairo，A．Colomb，ac．
Twelve distinet Toas or Noisetios，thrce bloomse of each．－lat， Mesars．A．Dicksor \＆\＆oxs；and we noticod Souvenir d＇un Ami，Ernest Motz，Porle dee Jandins，Innocento Pirola，Bridee maid，Catherine Mermet．Fravoisen Kruger，so baing worthy of remark．2nd，Mescrs．Prion $\& 80 \mathrm{Kin}$ ，Colchester．Niphotos Madame Hoste，Caroline Kuster，The Bride，Marechal Niel were the beat in this stand．
Kightwen dirtinet single blooms，｜Teas or Noisettes，－1 18t，Memers． Prior \＆Sows，with a atand in which were rery pood blooms of The Bride，Comtene do Nadmillac，Marie Van Houtto， Niphetoe，C．Kuster，Rubens，Boule dOr，Innocente Pirola，

Ivoere single blooms of any dark velvety Rose．－1st，ALEX Amper Dicison a Sows，with a fine stand of Earliot Dufferin 2ad，Mones．ToWmsend \＆Sow，Worcestar，with A．K．Will
hiams．
Twilve single blooms of any whits or light－coloured Rase，－1ut， Prop \＆Sov，Colchester，Mith．John Laigg；2ad，Messra， Twelve single blooms，any other colon．T．Laird．
Twolve single blooms．any other colour．－lith，Menors．Hisk－
ness \＆Sons，with Allred Colo nbe ；2nd，Mr．Gzorareyomm
For the most decorative arrangement of Roses， 12 feet lome 1 feet wide．－1st，Mesers．Jenkinson \＆：on，Newonatle，By fordshire，for a very artistic arrangement of baskets， prays，wreaths，and festoons，with Ferns，\＆c．si2nd， Chandos Pole Gille．Hopton Hall，with a collection ammen hiefly in low vases among Palms and Selaginellas．
In the amateur classes for twenty－four distinot bloomen for twelve distinct blooms，Mr．W．Drew．Ledbury，ma tif being followed in the latter class by Mr．Boyer．

## Cut Flowens．

For a collection of hardy border cut flowers，Messm，Inar NESA \＆Sons were 1st，with fine bunches of Coreopeis an difors，Delphinium grandiflorum album，Potentilla Vésuve，Chrysanthemums，Phlozes，\＆c．；2nd，Mr．Guma Mount，Canterbury
For twelve bunches of stove or greenhouse flower，Nem
Jenking \＆Sons were lat．Messrs．Jowes \＆Sows tury，had the best ball or hand bouquet；and Meerss Jham \＆Sows the best bridal bouquet．
The best stand of cut flowers for table decoration was otegi G Mrs．Blair，Trentham Gardens；2ad，Mim Kemps Market Drayton．Stand of cut flowers for table deantion and a simular class for nurserymen，was won by Yom JEMEINS \＆Sons．

Fruit made an excellent display
For a collection of nine distinct kinds，the lat prize wa hin by Baron Rothechild，Gunnerbbury Park（gr．，Mr．Regnolden who staged fine Madresfeld Court and Black Hambuy Grapes，a good Queen Pine，Belle de Doué Peaches，her Napier Nectarines，Brown Turkey Figs，Hero of Lachip Melon，Bigarreau Noir de Schmidt Cherries，and Pinemph Nectarine；2nd，C．E．Keyser，Esq．，Stanmore（gr，促 G：eoson），who had a fine clustor of highly－coloured Benm also Black Hamburgh and Muscat of Alexandria Graper，Bellir garde，and Early Alexander Peache3，Downton Nectarien and St．Margaret＇s Cherries，with \＆Ripley Queea Pine．
Collection of six varieties of fruit，excluding Pines．－－is Baron Rothsenild：here was staged ercellent Madrowiwl Court and Muscat of Alezandria Grapes，Hero of Inctiry Melon，Goshawk Peaches，Pine－apple Nectarine，and Bigmma Napoleon Cherries；2nd，Lord Bagot，Blithfield（gri， Bannerman），with Foster＇s Soedling and Black Bamiad Grapes，Golden Perfection Melon，Violette Hátive Puin Violette Hâtive Nectarices，and Browa Turkey Fig3，
Grapes．－For four bunches representing two distinet lint J．Graft Morris，Esq．，Allerton Priory，Livarpool（fr，监 Cravan），was lst，who staged exorllent well finithed Maind Cravan），was 1st，who staged exoflent well inizha apecial prize，as the most meritorious exhibit of fruit in show．2nd，Baron Rothschild，with the same varities
For three bunches of Black Hambargh Grapes，J．Ma Esq．，The Haye，Stone（kI．，Mr．Bates），was lat and J．Gur Morbis．Esq．，2nd．
For three bunches of Black Grapse，any variety，ith，J．awe Morris，Eyq．，with Madresfield Caurt，and special for bot of Black Grapes；2nd，Baron \＆OTHschild，for tho variety．
For three bunches of White Grapes，any variety，exily Muecate，Lord Hoteam（gro．Mf．Alsop）was 1st，mith finished Buckland Sweetwater．ind，Basiz Firzirasuid Eequ，Swynnerton Hall，Stone（gro，Mr．Turner），with
Melons．－The best green or white－fleshed Melon cand B．Fitzeerbert，Esq．，with Turnet＇s Seedling．2ma， Habrivgton，with Coustess．Mr．W．G．BeELSE， Hall Gardens，had the be st scarlet－fles
of Sion．2nd，B．Fitz herbert，Esq．
Peaches，single dish．－The Duke of Sutherlatin（f） Blair）had the best single dish，stiging a magnificont in Violette Hative．2nd，C．E．KEYSER，E，$q$ ，with Belleg
Nectarines，single dish．－1st，Duke of 8 utarbilli， highly－colourel Lord Napier．2nd，Lord BıG0T，with Fil Hâtivo．
Stratoberries．－Lord BıaOT had the best single dith fin Lato Pine ：2nd，R．SNEYD，Esq．，Kirk Hall（gr．，Mr，Will Charries．－The Earl of Harbivgtor，with ghimh gnifque，had the best dish of Cherr
with Bigarreau Napoleon，was 2nd．

## Vegetables．

The best Tomato were from Lord Hotenax； brace of Oacumbers from G．GAL工OWAY，Boc．
The collections of vegetables were numarous， excellence．For nine distinct kiads，Lady TM Inwood House，Blandford（gT．，Mr．Wiltring）， Satisfaction Potato，Autuma Giant Caulifowo Onion，Ne Plus Ultra Runner Beane，Prodigy Pu Tomatos，and Hurat＇s Monarch Cucumbers ；2nd，an Way，Eaq．，Rath．
Lady Tezodonk Guest was aloo 1st in Moemstry wid Gons＂class for air distinct hiads of vegetabled by imilur class，the prizes for whioh wers offo sutton \＆Sons．
Other prizas ware offered by the Duke sad SuThercamp for the boet－cultivated cottag for flower bouqueta，made

Nom－Competitive Exithis
Mr．Blair，gr，to the Dute of Sutherlard，
sstions, containing shades of bright scarlet to almost pure white. The plants were well grown and profusely flowered. He showed likewise a group of some hundreds of Lilium longiforums, which were the admiration of all.
Memre. Veitci a gons, Chelees, staged one of the fineet groups of plants the firm has ever rent to the Midlands, and comprised a col'ection of new Carnations. Rhododendron jasminiflorum well flowered; the rewest Nepenthes, and Caladiums. New varieties of Cacda, for which a Gold Medal was awarded. The same nursery firm staged a fine collection of fruit, and a collection of 100 vases of cut flowers.
Mesers F. SANDER \& CO.. St. Alban, staged a choice colMears F. Sander \& Co.i St. Albane, staged a choice col-
lection of new planta, for which a Gold Medal was awarded. The group included a fine s?rimen of Dracena Sanderians. new Begoaias, Alocasia W itsoniana, Eriocnema Sanderæ, a foe new variegated plant; Dew Palms, Orchids, \&c.
Mears. Dickson, Ltd., Chester, Were awarded a Silver Medal for a collection of cut flowers, consiating of Roses, Gladiolus, Camations in variety, Phloxes, and other flowers of pereanial planto.

Mesorn. Cutbusir \& Sons, Highgate, had a Silver Medal for hardy cut flowers, including Carnations, Mesars. WEITe. \& Son. Worcester, Silver Medal for thirty-sim varioties of herbaceoas cut flowers, Gladioli, Gaillardias, Pompon Dahlias, herbaceous cut fiowers, Gladioli,
Mesors. EckPord \& Bor, Wem, were awarded a Silver Medal for fifty varieties of Sweet Peas, arranged in vases with foliage.
Mearp. Clibran \& Son, Altrincham, had a Silver Medal for a collection of cut flowers; Messrs. Hill a Co., Spotacrs a Silver Medal for a collection of shrubs in pots; and Messrs. Pbitciard \&on, Shrewsbury, aSilver Medal for a collection of eghty varities of border Carnations.

## HAMMERSMITH HORTICULTURAL.

THis part of cuburten London hap, of course, it b Horticultural Society, which doubtlese contrives to keep up a love of gardening amongst its heterogeneous population. The district was once well dotted over with large residences in the times when rich citizens were not conveyed as now by rail and coach so far afield to their homes, and there are atill existent legends of fine old gardens in and about Hammersmitb. Did not the mother of the present President of the Royal Horticultural society porses a ganden but a short way from Hammersmith, that was famous for rare plants and good gardening; and Kenaington, Chiswick, and Turnham Green were peopled with nurserymen, florists, and market gardeners. Who has not heard of the celebrated firm of C. J. Lee; of Salter of
Chrysanthemum fame, who escaped with Louis Philippe's fine china dinner service in 1818, whith he let select visitors beholr in his pariour at Versailles Nursery, Hammergmith, down to 1809, for the depesed King gave it to him, after it was brougt t over to this country; of Glenny, of Glendinning; of the famous Williama Bon Clrétien Pear that has made peoplo affluent both hereand in the United States of America, and which was found in a Turnham Green garden? Many of the formet owners of these gardens are dead and gone, and the land once theirs carries, alas, a crop of houses instend of fruits and flowers!
The Society held an exhibition (the eleventh) on Thursday, July 25 , at which were groups of plants shown by amateur and professional gardeners, Mr. Woonhouse being lst among the former, as 1 Mr. Brombey among the latter. Nice exotic Ferns came from Mr. Addison, Mrs. LLoYD's gardener, Merton Loder, Chiswick; and good Fuchaias were abown by Mr. Butcerfikid, a gardener.
Some non-compelitivo exhibits came from Mesary. C. LeE, of the Royal Vineyard Nureeries, and from Mr. PREWETT, 8wiss Nursery.

## CARNATION AND PICOTEE UNION.

JuLy 27 . -The annual show took place as unasl in the garden of the Cottage, Stanley Road, Oxford, on the above date, under the management of Mr. Medburat, son-in-law and successor of the late E. S. Dodwell. A isise lot of flowers were ataged, and admirers of the flower came from varione parte of the country.
Carnations.-As at the Crystal Palace, so here, Mr. Robert Gydenham, Birmingham, took the let prize in the leading clase for twelve Carnations, there being six exhibitors: Mesars. Thomson \& Co., Birmisgham, were 2ad, with a stand oply juat below the other. Four other prizes were awarded. There Were nine competitors with six varietien, Mr. C. F. Tharstan, Wolverhampton, being lat, and Mr. A. E. Brown, Birming ham, थnt, six other prizes being awarded.
Picotees. - Thera were five collections of twelve Picatees, Mr. A. W. JoFes, one of the Birmingham mateurs, taking the lst prize with superb blooms; Mr. R. Sydengam was 2nd; and four other stands received prizes. There were twelve atands of six Picotees: 1st, Me. A. R. Brown; 2nd, Mr. C. R. Thurstan. Nine prizes were awarded.
Selfs. fancles, and yellow-grouads. - Theso were superb, and perhape finer than were ever seen at Oxford. There wore sight stande of twelve blooms, Mr. A. W. Jonke taking the lst prize with a eplendid Int, some of the finest being Qladye, a pink self; Stadtrath Bail, Y.-g., very bright; Misy Audrey Campbell, a yellowish melf: Germanis, very fine; Javire, and Mr. B. Sydenham. Mr. R. SYDENHuM was 2od, and aix prizes were awarded in all. There were thirteen stands of six blooms: Mr.W. Spenter, There were thirteen stands of six very.fae lot; and Mr. A. B. Brown 2nd; six other prizes beivg awiarded.

Yellow Grounds on'y,-There were thirteen stands of six blooms: Mr. W. Read, the gardener at the Cottage, taling the let prizes; Mr. A. W. Jones was 2nd, and so good were the lst prizes; Mr. A. W. JONES Was 2nd, a
Single blooms.-A large number of these were staged, and many prizes awarded.
Premier blooms.-The premier Carnation who C. B. J.S.
Hedjerleg Madeline, N. R E from SYDENHAM: the procier Picote Germania, from the same: the premier Fancy, Firefly, soarlet and maroon, a sport from S.B.O.H. Herbert, from Mr. O. F. and maroon, a sport irom S. B. C. H. Herbert, from Mr. C. F. ThURSTAN; sind he pre
from Mr, W. SlemCer.
from Mr, W. SleENCER.
An excellent collection of bunches of hardy plante were staged by Mr. B. LADEAMS, Southampton; Dahlias by Mr JOKN WALKER. Thame, and Mr. T. ANstiss, Brill; and seedling border Carnations of excellent quality from Mr. W. Hovell, gr. to G. H. Morrell, Eeq., M.P., Headington Hill Certificates of Merit being awarded to each.

A large party partook of luncheon in the grounda under the preaidency of the Mayor of Oxford.

## ELOWER SHOW AT WELLINCBOROUGE

July 28. -This exhibition took place in connection with the periodical meeting of the Northamptonehire Agricultural Society' show, and was the means of bringing sngether, in the clanses open to all Eogland, exhibits of high order of merit. Handsome money prizen were offered for twelve atove and greenhouse plants, diseimilar.
Mr. J. CyPEER, nurseryman, Cheltenham, took the 1st prize with grand examples of Kentia australis, K. Belmoreana, Latania borbonica; a magnificent Croton Sunset, C. angustifolius, and Cycas circinalis; s remarkably good plant of Erica Austiniana, E. tricolor vera, Fhoenocoma prolifora Barıesis, Izora Williamaii, \&c. Mr. W. Finch, gr. to J. Ma rriott, Erq., Coventry, was 2nd, with a collection of similarcharactor. Erq., Coventry, was 2nd, with a collection of similarcharacter.
The beat plant proup came from Mr. W. Vause, nurseryThe beat plant group came from Mr. W. Vause, nursery-
mav, Leamingcon; Messrs. H. \& E. Lack. nurserymen, Wallingborough, were 2nd.
Wellingborough, were 2nd.
Mr. Fincl bad the bert
Mr. Fince bad the bert six fine-foliaged plants: Mr. Vause taling the and prize.
The beatspecimen plant was a magnificent example of Zamis Vroomi, some 16 feet in diameter, and having seventy to eighty finely-developed leaves, shown by Mr. C. Wilkins, Wellingborough ; so large was it that accommodation had to be found for it in the open. Ferns were well shown in both dswisions; in the open c'ass by Mr. J. Copson, Cottingtree, who was 1st; and in the gardeners division by Mr. D. WıLKER, Wellingborough. In the gardener*' division Mr. FLNoE had the best six stove and greenhonse plante, all in flower: Mr. the best six atore and preence. Foliage plante, Caladiume, Copson taking 2nd place. Gorinias, Fuchsias, Coleus were good.

Cut Flowers. - The open class for twenty-four Roses brought a good competitiod, the Rev. J. H. Piemberton, Romford, taking the lst prize, having fine examules of Mrs. J. Laing, A. K. Williams, Comte Rainbaud, Caroline Testont, Ernest Metz (Tea), \& 0.
With twelve varieties of Teas, the Rev. E. G. KiMG. Gayton, was 1at, having good examples of Princess of Wales, Madame Oasin, Marie van Houtte, and Hon. Edith Gifford.
The bent twenty-four bunches of cut flowers came from Messra. T. Perkins \& Sons, wurserymen, Northampton. In another division for twelve Roses, come good cut bloom of Z mal Pelaryontums and double and single Begonias wert staged.
Fruit in quantity was limited, but in quality good. The beot collection of fruit came from Mr. Hariss, The Gandens, Castle Achby, who had Grapee, Pine-apple. a Melon, Peaches, Nectarines, ad Goomberries. Mr. D. Percival. Welling borough, hed the beat three bunches of Black Hamburgb Grapes. Mr. J. Curpatons, Dingley, was the only exbibitor of white Grapes, haviag Foeter's See Hling. Some good Peach s were shown by Mesire. Irons, Spratyon and Copson, also grod early prolific Plume.

## T. H. Rabone.

In our lant issue we contined oarselver perforce to the mere mention of the decease of Mr. T. H. R ibone, the well-known gardener at Alton Towers; A full accoant of his career up to the date of pablication was given in our isaue for October 14, 1876. From this it appears that Mr. Rabone was born in 1833. In boyhood and youth he ererved in the gardena at Wellesbourne Hall, Walton House, and Packington Hall. In the laet-anmed place be tells us he had eleven fires to see to on \& winter's night, but Where he nevertheless educated himself by dint of perseverance. From Packington he went to Shrabland, and thence to Trentham, where he came auder the tuition of Fieming. From Trentham he went to Barlaston, where the lessons be had learnt were turbed to account, and he became a diatinguished exhibitor, as also when he wat at Elart's Hill and Woodseat. At the great Hortoraltaral Show at Leicester he took the lot phize for diery dith of fruit he exhi-
bited, six in number. Thence be proceeded to Alton Towerp, where he had the supeintendence of the garden, the woods, and the eatate renerally. The cloning paragraph of the antobiggraphical note, from which the above particalare are taken, ends thas-". . . it mesy be that when you are dend and gone your memory will be recalled with gratitude and tears." How trae this was ol himeelf is shown by the following extract from a local paper :-" Tbe Earl of Sbrewabury came down epecially from London on the 19/b intt, on hearing of Mro Rabone's, rerious illness, in order to see him and exprese his deep aympathy with the family. Telegrams were despatched and received several timea each day from the Earl and Countess, and other members of the family. On hearing the and intellizence on Saturday of hia death, the Earl ordered the flag to be hoieted half-maet high on the Towers, and so it rewained till after the funeral. All the blinda at the Towern were drawn, and the ground closed till ater the faneral. By all denomination the deceased was greatly respected. He was on the Board of Gual diane for Cheadle, wat ditetrict Councillor for Furley, and a parish councillor. He was a Freematon, and Past Master of the Foreaters' Lodge, Uct (x-ter, and Patt Provincial Grand Swordbearer, Steffordehire. The deceased, though a Wealeyad, retained the greateat affection and love for the Church of Eogland, and was by his own request buried with the sites of the Charch in the consecrated portion of the additional churchyard at Alton. The coffin was sent by Mr. Mynors, his lordehip's agent at Ingestre, and was made on the eitate there. The procention was headed by Mr, W. C. T. M $\mathrm{M}_{\mathrm{n}}$ nors, representing the Earl, and Dr. Hall. At the charch gates the body was met by the local clergy and dimenting mininters, and the Rev. R. Barr tt (Weslegan minarter, Cheadle), the Rev. W. C. Greene (vicar of Oakameor), the Rev. C. J. Winser (vicar of Market Drayton), the Rev. C. B. Tyimbitt (vicar of Cauldon), and the Rev. W. T. Nirton (Denitone College). On reaching the church, Mr. Ba'low, his lordship's organist, played "O rest in the Lord." The moarnere were the Rev. T. H. Rabone, Mr. Henry Rabone, Mr. Frank and Cbarlie Rabone, the Rev. R. Murphy, and a large body of tenantry and friende. Amongat thowe who sent floral tributes, numbering nearly aixty, were the Earl of Shrewabury and Ta bot, the Countess of Sbrewabary, Viacount Ingeatre, Lady Viola Talbot, Tberesa Countess of Shrewabary, the eatate workmen, the gardenera at Alton Towera and Ingestre, the arvanta at the Towers, and many othere.
Mr . Rabone earned for himself the proud title of the gardener's friend. Letters from some of bis "young men" are before na tentifying to the easential goodneas of the man and bis kindneas of herr:. In Dean Hole's Memories is the following parsage:"Solace comen to joa with the real enthusiast, who shares your admisations, your auccesses and disappointmente, as thuagh they were his own; who is as anxious to rective, as he is willing to give information; an gratetal as he is generoun. How quickly and bappily the hourt go, as in his garden, or in yours, or wherever your favourites grow. you suggent to each other new charma, new combinationt, new methods of calture. I went to one of the most beantifal of our preat Englioh gardens, and meeting the head gardener, atked permisaion to walk tarough the grounds, and told him my rame. Tomy momentary sarprise he made me no answer, but turning to one of his men at work clowe by, bade him 'set the fountaing playing.' That was his brotherly welcome; and it atirred other fountains beside thone which suddenly arow and aparkled in their ailvery wheen, and made my heart glad. In thie deliyhtful garden there standes atatue of the noble owaer who reclaimed it from the wate, and underneath an inscription. 'He made the desert mile, and so our love of flowers and forite maken green spots on the path of time.' In this land of gardene the gardeser bas troops of friends, and even in places which the world calls desolate, he thall find companions to cheer him, to long se there are Lichens on the mountaine, Ferns in the ralley, or slgat on the abore.

The wildernens and the solitary places aball be glad for him, and the desert thall rejoice and blosmom an the Rowe."
Mr. Rabone rarely came among hia Metropolitan colleagues, but he wan well known among them as a good gardener and a mont conacipntions sympathetic man, ever ready to do good to oth $\sim \mathrm{ra}$.

## MR. A. F. BARRON'S RETIREMENT.

Thr announoement that Mr. Barron is shortly to retire from the direction of the hallowed gardens at Chiswiok will oome as a surprise to many and a shook to some. No doubt the Council of the Royal Horticultural Society have given the matter the most anxious consideration, and have convinced themselves of the expediency of the step in the interests of the Society and of Horticulture generally. Moreover, they oannot have failed to remember the prolonged and unique servioes whioh Mr. Barron has rendered to the Society, and the retiring pension offered to him will doubtless be proportionate to the means at their disposal and to their sense of the value of his services. The older members of the Council have surely not forgotten the staunch, unwavering loyalty whioh Mr. Barron displayed during those wretohed years of the South Kensington management, when Chiswiok was allowed to fall into a miserable state of disrepair. At that time the direction of the garden must have been a constant souroe of depression to the Superintendent, intensified as it was by an abiding sense of the precariousness of his position. This state of things has happily passed away. Chiswick has been put into good order, and horticultarists long to see it the exponent of progressive hortioulture, and the trial ground for all that is promising and instruotive. They do not oare to it competing with marketgrowers in the sale of Grapes, and they think the services of the staff might be more profitably employed than in growing for distribution among the Fellows plants which are readily to be purchased for a few pence at the nearest florist's.
But leaving these matters aside for future consideration, the one uppermost feeling in the minds of those who are familiar with the work of the Society is, that Mr. Barron should not be allowed to retire without a tangible expression of goodwill and admiration on the part of those who have witnessed his efforts or benefited by his help. His name has been synonymous with staunchness and loyalty. Under circumstances always difficult, not unfrequiently perplexing, and sometimes, as we have said, depressing, Barron has set a fine example of steadfast devation to duty, whilst outside his official daties his work as the anthor of the most popalar book on Vine cultare and his services to the Gardeners' Orphan Fund have given him a claim to the warmest acknowledgments on the part of his friends and associates. In this matter we feel we are bat expressing the feelings of many others, for even before the matter was pablicly known we have been in receipt of many letters, expressing the same views. It is needless to say that we shall feel it a privilege to co-operate in the matter and to assist in whatever may be determined upon.

## Nursery Notes.

## MR. DOUGLAS'S CARNATIONS.

Tre little atation of Bookham on the Lo \& S . Wentern Railway, about 20 milen from London, and in one of the prettient dietricte of Surrey, in but
little frequented except by achool-children and others from the metropolin, who have found the place to be a saitable one for their annal excarsion. Since, however, Mr. Douglas has commenced his pursery within five minates' walk of the place, there have been attractions to the florista also, and these are likely to become atronger each season. It was Mr. Dongla, Carnations we joarneyed to see last week, wondering as we did $\mathrm{so}_{\text {, what }}$ whind of a display we bould witnens after the extraordinary character of the weather since Chriatman. A peep into the first house to be neen, however, was anfficient to asmure un that the renult of unfavoarable weather was not very evident, and after pasning through two of these all filled with excellent pot plants, with large stout flower-stems much branched, and bearing countless blooms of atriking quality, the conviction was forced upon us that the journey was little compared with the return to be found bere, which was such an one that any admirer of these flowers would be satistied with. Mr. Douglas bas long been known as a raiser of new Carnations, and judging from the far greater namber he has of seedlings this season, be will be better known in the future; but the varieties at present aperior to any others of their sort are those which have been raised in the garden of Martin R. Smith, Eeq, Hayes Common, and which are sent ont by Mr. Douglas. Each of these admirable varietien is grown in numbers here, and from the abandance of bloom, the effect of each compared with the other can easily be noted. Mrs. Eric Hambro is the most meritorions of all. It flowers are pare white, very large, being 3 inchen in diameter, and of the most perfect form posaible; the petals are flat, and the bloom nearly circular. This handsome new variety is one of the finest white varieties ever sent out, and the habit of the plant is strong and free-flowering. Lady Ridley will, perhaps, be equally admired; the flowers are not emaller than the one just detcribed, but the form is not quite so perfect, and the colour in lem pare, inclining to cream. It habit, however, is very commendable, especially the tout footatalke, which make tbe plant so erect in flower. A charming new rose-coloured variety is found in Sadek; the rose is rich and deep, rather peculiar in tint, and very pleasing. A large quantity of bloom was in perfect condition, and its erect and vigorous habit make it apecially desirable. Bendigo has violet or bluish-purple flowers, growa lesa tall than many kinds, but in habit it is very aturdy, erect, and vigorous. Braw Las has brighter rose flowers than Sadek, and they are of large size and good form. Some of the very largest had aplit calyces, but the occurrence was not frequent, and was not to be seen at all in cases of necondary or amaller blooms.
Only four new yellow - ground Carnation and Picotees are to be sent out during the coming season, and of thene were noticed George Cruikshank and Cowalip. To speak of the last-named firt, Cowslip is a yellow-ground Picotee, with edging of bright rose. It is a good grower, and we could detect no aplit calycen; the blooms are of commendable form, and apparently the variety is a late one, as there were fewer blooms expanded on thene plants than ou othern. George Cruikehank is an excellent Carnation, of the type of Victory, and although distioct from Cardinal Wolsey, which was sent out last reason, it is of the same type. It has a boffground, and is flaked with crimson or blood-ren. The flowern are very large and extra full, calyce good. In addition to these that have not yet been cont out were the collection of the new ones of lant season, wuch a Cardinal Wolsey, which we have just mentioned, Hayes' Scarlet, which is certainly the fineat carlet Carnation ever raised; Dake of Orlesn, dark shade of yellow; Misa Audrey Campbell, brimstone-yellow; The Hunter, rich Alricot-yellow; Cormona, pleasing golden-yellow; Waterwitch, extra large, and of the most delicate blush; Mephisto, Iovely crimen, and notably good form; and King Arthar, an exceedingly lage flower, 5 inche in diameter, of acarletcrimeon, extra goed for a border. Other, goed Carnation are Snowdon, a large white flower of rather
indifferent form, but valuable for a border; Endoxin, a large flattish flower of almon-rose; Pride of the Garden, another rome-coloured variety, apecially anitable for borders. These last three were rained by Mr, Douglay, as were also the following Picotent: Ladas, clear yeilow ground with thin scarlet edge, good flower and stout petals: Mr. A. Tate, yellow ground, edged and marked with rich red; Preaidens Carnot, yellow ground, heavily edgad with roas. acarlet, flowers of considerable aize and good in form; Mra. Duuglas, one of the most attractive, having apalo yellow ground, with rose edge, and of very fine form; Mrs. Dranfield, with yellow ground, is rather hearily edged with palerose. A new velvety-criman Carnation of exquisite form, named Henry Irving, and raited by Mr. Douglas, well deserves notice; and also a aporit from the new yellow-ground Picotee Mre. Gooden, which we think will be a valued one. Considerablo work has been done in the narsery since we last mur it. Roadway have been made, and a dwelling hone is in course of erection. More sace than here tofore has been planted with seedling varieties of Carnations; and in spite of a seanon remarkable for it lack of moisture, the whole collection looks healthy, the planth are well flowered, and there an many amongst them to which the future belong,

[The term "acenmulated temperature" indicates the sgow gate amount, as well as the duration, of degrat cemperature above or below $42^{\circ}$ Fahr. for the in Das degrees - s "Day-degree" rignifying $1^{\circ}$ continued twenty-four hours, or any other number of degres an inversely proportional number of hours. 1


The disi ricte indicated by pumber in the first colsum
0, Scotsand, N. Principal Wheat-producing Ditrias; 1, Scosland, E.; \%, England, N.E.; 3, Englandans 4, M dland Counties, 5, England, includigg Wind, W. I,
Princtval Grazing, \&c., Districts-6, Scotland


THEPABTWEEK。
THE following summary record of the weather throull the British Islands for the week ouding Jaly 27, is form from the Meteorological Office:-

The weather was again dull and unsettled very goprilin with frequent and heavy rain in nearly all parto time to tim dom. Thunder and lightning also occurred from time to in almost all districts.

The temperatur slightly exceeded the normal in is land, E,' and the "Midland Ccuntips,' as Well asd; ' - Channel Isfande,' and just equalled it in 'Engrand, to S.W.:' elsewhere, however, it was below the mean rilut deficit amounting to as much as $3^{\circ}$ in " Scotland, H. and
and $2^{\circ}$ over 'Ireland.' The highest of the maxima were recorded on the 26th over England, but on varying dates in Ireland and Scotlant; they ranged from $78^{\circ}$ in 'Enqland, E: $87^{\circ}$ in 'England, S.,' and $76^{\circ}$ in the 'Midland Counties,' to $89^{\circ}$ in 'Ireland, N.,' and $68^{\circ}$ in 'Scotland, $N$.' The lowest of the minima were registered on the 23 rd, and ranged from $33^{\circ}$ in 'scotland. N.,' and $40^{\circ}$ in 'Scotland, W.,' to $49^{\circ}$ in 'Eng land, N.E.. S and S.W., and to $56^{\circ}$ in rhe "Channel Irlands.'
'The rainfall just equalled the mean in ' Scotland, N.,' but greatly excreded it in all other parts of the kingdom. In many districts the total fall for the week was abour three times as much as the mean, while in 'England, N.E.,' it was more than four times the mean. The largest amount messured at any iudividual station during the week was 3.54 inches at Alnwick Castle, and was five times as much as the mean for the period.

The bright sunshine exceeded the mean in some parts of the north of 8cotland, but was very little prevalent elsewhere. The percentage of the possible duration ranged from 34 in the 'Chanvel Lelands,' and 38 in 'England, E. and the Midland Counties,' to 15 in 'Ireland, N.;' 14 in 'Scolland, No,' and 12 in 'Scotland, E.'

## MARKET8

## COVENT GARDENN, August 1

Wo cannot acoept any responsibility for the subjoined reports. They are farnishod to us regularly every Thurgday, by the kindnese of several of the principal salesmen, who revise the list, and who are responsible for the quotations. It must be remembered that these quotations do not represent the prices on any partieular day, but only the general averages for the weelk prooeding the date of our report. The prices depend apon the quality of the samples, the supply in the market, and the demand; and they may fluctuate, not only from day to
day, but often eeveral times in one dav. KD . 1
Cut Flowerg. -aterager whoneale Pbiofa.


Plantid di Pots.-Average Wholeshle Pbions.

## Adiantum, per dos. $\begin{array}{cc}\text { s. } \\ 4 & \text { d. s. } \\ 0.12 & \text { d. } \\ 0\end{array}$

Aspidistra, per doz. 12 0-30 Calcoolaria, per doz. Coleus, per dozen. Cyperus, per dozen Draozus, each dozon
 - Mvergreen shrub. in variety, per dozen
Ternes, smalii, doz.....
Ficus various, doz.
Fuchsias, per doz. .. Heliotrope, per doz.
Hydrangeas, Hydrangeas, p. doz
Iv Geraniums, doz Ivy Geraniums, doz Lilium Harrisii, per Lilium lancifolinm Lobelia, per doz Marguerites, p. doz Marguerites, p. doz
Mignonette, p. doz. Palmas, various, ea, Pelargonimms, doz. Rhodanthe, per doz. Wrotrane Pricers.



s. d. s.d.
$16-20$
$20-60$
$\begin{array}{lll}60-10 & 0 \\ 20 & 0 & 0\end{array}$ $10-10$
$10-16$

Vegetables.
 Candifinurers. D. doc Macumbers, per doz Muarrows, veg., doz.
Poas, blue, per bubl $0 \quad 6-08$

The now English Trifolium comes cheap and good. New home-grown Rye and Rape soed are appearing. Harioots acarce, Peas unchanged. Bird seeds slow. Buckwheat off ers at tempting figures.

## FRUITS AND VEGETABLES

Boroval: July 30.-Quotations:-Peas, 2s. 6d. to 3 . per bushel; Horseradish. 1s. to 1s. 3d. per bundle: Onions, foreiga, $3 s$. per bag; Cherries, 4s, to 8 s . per half-sieve; Cur ranta, 2s, to 68. do. ; Gooseberries, 2s. to 3s. do.
SPITALFILLDE: July 30,-Quotation:-Carrots, 2s. 6d. to 3s. par docen; Turnips, 2s. to 2s. 6d. do.; Marrows, bs, to 7s. per tally; 8carlet Beans, 3s. $6 d$ to 4s. 6d. per bushel: Brond do., 18, to 1s. 3d. do. : Cabbages, 2s. 6d. to 38. 6d. per tally; Onioas, Epring, 12. 6d, to 2s. per dozen bunches.

STRATFORD: July $30 .-$ Quotations:-The supply to this market during the past week has been good, and. with plenty of buyers, a brisk trade was done as under:-Cabbages, 2s. to 5s. per tally; Turnipe, 2s. to 28.61 . per dozen bunches Carrots, household, $2 s$, to $2 s$. per dozen: Mangels, 20s. to 24s. per ton; Greens, 4s. to 4s. 6d. per bag; Onions, Port 5s. to 8s. 6d. per case; do., Dutcb, 3s. Bd. to $5 s$. per bag Apples, Eqglish, 2s. 6d. to 4s. per bushel; Cherries, 5s. to bs. 6d. per half-sieve; Currante, black, 48, to 5s. do.; do., red, 2s. 6d. to 3 s . 6d. do.; Plums, foreikn, 4s. to 6s. per basket Pears, 1s. 6d, to 2s. per half-bieve; do., Malliew, foreign, 2s. to 4s do Tomatos, Finglish, $4 s$, to $4 \mathrm{~s}, 6 \alpha^{2}$, per peek; Bearlet Ranners, 3s. to 3s. Bd. per bag.
TARRINGDOR: Aug. 1.-Quotations:-Cabbegee, B8. per tally; Paraley, 3s. 6d. per dozen banches: Oarrots. 4s. do.; Turnips, do.; Currants, black, 8 s. per half-buehel; red do., 6s. do. : Marrows, 2s. 6d, per dozen; Peas, 3s. 6d. per bushel Scarlet Beans, 4s. do; Apples, Eaglish, 3s. to 4s. do. Tomatos, 4s. to 4s. 6d. per 12 lb . Gripes, 1s. to 1s. $3 \mathrm{~d}_{\mathrm{s}}$ per 1b. Cherries, white, 11s. per half-bashel ; black, 7s. to 78. 6d, do. Plumes, bs, 6d. to 6s. do.; Peaches, 7d. per box: foreign Grapes, 9s. per barrel ; Green Gages, 4i. per baiket (15 1b.); Pine apples, 28. each.

## POTATOS.

BOROUGE: July 30.-Quotations range in price from 75s. to 120s. per ton.

SPITALFIELDS: July 30. - Quokations:-Snowdrops, 80s. to 100 s . Puritans, 90 s , to 100 s : Hebrons, 70s. to 90 s . Suttons' Regents, 70s. to 95s. per ton.

Stilatrond: July 30.-Quotations:-Mdauty of Hebron 80s. to 90s. 8 Bnowdrops, 80s, to 90s. ; dark soil, 70s to the Dutch, 60s. to 70s. per ton.

Farbliadom: August 1. - Quatations: - White Hebrons, 903 . to 100 s ; ERed do., 90 s. to 100 s . : Maganmas, 80 s to 90 s . per ton.

Londor Ayweiges: July, 24-Hebrons, 80s, to 100s. Snowdrops, 80s. to 100 s .: Ridneys, 700 to 80s, Barly Regents, 70s. to 80s.; Puritans, 80s, to 900. Farly Rose, 75s. to 85s. per ton.

## HAY.

Averages. -The following are the averages of the prion at the principal metropoliten maricote duriag the put weel:the principal metropolfens mariote durian the pet weok:-
 92 s .6 d . ; and straw, 204, to 38. per load.

## CORN.

Avarages. - Official statement of the arorage prices of British Corn, imperial measure ( $q$ r.), for the weol ending July 27, and lor the corresponding period last year:-1895 Wheat, 24s. 1d.; Barley, 19s. 10d.; Oats, 13s. 11d. 1804 Wheat, 24. 8d.: Barley, 22s. 5d. ; Oats, 20s. bd.

## Tbade Notice.

We nuderatand that Mr. A. Evaks, head gardener at Lythe Hill, Haslemere, han begun buoineen an a fruiterer, florist, and seedaman, in Havlemere.

## ENQUIRY.



## SEEDS.

Lownor: Su'y 21.-Mesars. John Shaw * Sons, Seed Merchants, of Great Maze Pond, Borough, London, S.E. report an ircreazing sowing demand for Mustard and Rapo Beed. Prices for both articles stabd at a mororate level. Rather higher prices for Trifoliam are reposted frem Frapeo.


- Owing to the large increase in our circulation, we are reluotantly under the neoessity of going to press some hours carlier. Our contributors, who woll know what this implies, wit kindly aid us by sending their communications as early in the week as possible. Communications should rench us not later than Wednesday.
** Plasts, Frotis, xto., to er Nanki--Correspondente onding plaxts or Aruits to be mamed, or asking questions demanding time and rewarch for their solution, muet not ampect oobtain an ansuer to their enguirtes in the curront woek. Spectmens should be good ones, carefully packed and numbered, and not more than six should be sent at ons time. Leavee onily, or Florists earieties cannot, as a rule, be named.
Adderss: W. T. Pablinhed by M. Doin, Paris.
A Red-coloured Cabnation uspd in Augteia and Switzreland for Filling Window- boxes: Florist. Probably Carantion Margaret (Margaretben Nelke), large-flowered, dwarf of habit, but various in colouring.
Brauty or Bath Apple: Geo. Cooling. An excellent desaert fruit, pleasant in appearance and flavour.

Canmas: A. W. $M_{\text {. }}$ Austria. The bloome reached ue in such a withered condition that it was impossible to prononnce any opinion apon them, save that the flowers were maller than thoae we are now accustomed to see

Serdeting Carmation: G. B. A good variety, orange-pink, but we cannot may it is better than other.
Correction.-Among the list of candidates placed in the First Clase at the recent examination at the Royal Horticultural Society, the name " Micklethwaite" wat erroneoucly apelt "Macklethwaite.'
Formen Wood and Nuts: J. P. If you will kindly aend your foll address we will commanicate with you by letter.

Grapes: A.J. B. and A.S. Your Grapen are affected with " mpot," the work of a fungus. Another year try the effect of spraying with Bordeaux Mixture when the berries are small.
Grmenhoder Ferns from Sporrs: J. W. Many apecien anch as Pieris tremula, P. serrulata, P. aspericaulis, Aduantum capilus-veneris, Aspleninm aeveral apecies. viz., alatum, erectum, and flabellifolium; Crstopterie tenaie, Lomaria gibba, Nephrodium molte, Polypodiam pectibatam, Scolopendrium in varisty, Woodoia obtusa, and others. In a damp house the spores germinate abundantly, and can be made to attach themselves to suitmble abotances, anch at lump of peat, soft bricks, porotus plater, and dead wood; or they may be sown in pans thinly, the pans being flled with andy peat or peat and loam, over abuadant drainage materials. Asplenium of ame speciea, for intance, may be 18 month in appearing, and there thould be no hurry to throw a pan of apores away; on the other hand, there are species which ahow the prothallas in a fortaight.
Lachenalias: T. T. The bulbe are attacked by a fungus-Sclerotinia bulboram. Leave all affected bolbe for fifteen minutes in a rosered molation of potataic permanganate, shaking well so at to inaare the wetting of every part. Attermarde dry in a current of air. G. M.

Melons Diskaszd: Cd. M. Phoma lagenicola, a minute fungus, it destroying the Melon plante. Wash the aisessed parte with 1 part paraffic in 70 parta water, alchough it is probably too late to do anything with the present crop. Burn all diseased portions, and either change the soil, or sterilive thoronghly before planting again. G. M.

Naups of Plasts: Correspondents not ansocered in this isews are requested to con wht the next number. -Comstant Reader. 1, Campanala latholia: 2 Deutzia crensta double-fowered variety, - A W Mayer, Nied. Stanhopea tigrina.-Rio. Andronace lanuginona. - W. J. Lysimachia thyrsillora - D. D. H. Staptylea pinnsta, -X Y. Z. Cuncuta epithymum, Lewer Dodder.-E, M. Echiconpermum sp., perhapa E. Lappula. Look at the bur
with a magnifying glase.-No name. Eryngiam alpinom, Chrynanthemam lacastre, Lobelia car-dinalis.-A. J. B. 1, Inula AD.; 2, Riccarton Fachaia; 3 Bocconia cordsta; 4 Helianthastigidas; 5 Chryannthemam lacuatre; 6. Stipa pennata. N. C. 1, Achilles Ptarmica, double: 2, Centarrea moschata, Sweet Sultan.-W. H. Eria stellata J. I. 1. Polyutichum veatitum; 2 Lastrea glabella; 3, Gymnogramma ochracea; 4, Gymnogramma (Dictyngramma) japonica variegata; 5, Pteris hastata; 6 Lastrea strata ; 7. Wood wardia radicans: 8, Doodia candata; 9, Asplenium feociculaceum; 10. Lastrea serra; 11, appears to be a wealk, barren frond of Pteris tremula; 12, Pteris longifolia. You have sent double the number we undertake to name; a small contribution to the Gardenern' Orphan Fand would be gracefal compenation on your part for our trouble and time.-F. Y. Celaia cretica. Constant Reader. 1, Maranta zebrina; 2, Pandanae graminifoliue; 3. Dieffenbachia nobilis ; 4. Draczona Lindeni; 5, Anthurium Scherzeri-anum.-R. C. Filey. D-ndrobiam Bentonx and Epidendrum fragrans.-F. P., co, Monaghan. The beat form of Epidendram fragrave and Bletia Shepherdi. - W. Macdonald. Your variety of Odontoglosum Uro Skinneri is the finest we have seen. The flowere of Cattleya labiata Gaskelliana exhibit a carious departare from the normal form. We will refer to them at length in a later insue. - S. Maddox. We do not andertske to name floriats' varieties of any plant. - Disca. Eryngium alpinum.
Thonley's Powders for Hobses axd Musiboom Duse: Head Gardener. We have no experience in the matter, but we shou'd anppose that if the horse-food conaiste of chaff, hat, Beans, and Oats, the manare would not be rendered ansuitable for makiog Mushroom beds. The litter from beneath horses treated medically should be discarded.
Towatos: Burbach. Your Tomato fraite are attacked with "Black-rot," caused br the fungus Peronoapora lycopersici, bat the damage to the foliage is due to the presence of another fangus, known as Cladosporium fulvum. The best antidote is the Bordeanx Mixture, the formula for making which was given in our isane of last week in this column.
Vina Roors Decayed: Market Gardener. A moured soll, with water probably atagnant in it.
Tellow Raspberby "Bride or Suphrlativa": J. Merryfield. A fine vigorous plant, with large fraits that were however almost flavourless, from having been exposed to heavy rain for a long time. Send ngain when in better condition. There are too few yellow varieties in cultivation.

Communcations Recerved.-D. Melville, in good time. C. H. M. A. A.-F. C. S.-J. Mackinnon.-R. D.-E. J.F. W. S.-G. W.-W. M. W.-W. S.-D. T. F.-W. BeF. M. - R. L. H. -F. R. - Merywether \& Son, -C, -H. C. F. -F. de M., Guernsey. -C. de C. -W. M. -E. de L. Contich -T. H. R.-W. T. T.-F. B.-Otto Ball.-J. H. K.-J. W -W. D. -L. B.-E. W. B.-L. L. - W M., Nied, Austria. T. C. H. -R. A. M. W. -J. B. -T. R. -E. L. J. -F. S. \& Co. C. 8. 8., Boston, Mass,-G. B. B,-J. B. - M. M. -T. C.H. Duolin (too late)-J. A., W. C., and H. L. (nezt week) phozographs, spectmexs, de . Reokived Wite Thayks. W. Bull.-T. C. H. - R. $\mathrm{P}_{\text {. }}$

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 $21-02$. Foreign, of above sizes, 100 and 200 feet boses, 3rds and the qualities, always in stock. $16-02$. Foreign similar current 8'zes in 200 feet bores. free and sound in the country in quasntityisses, to. PUTIY, WHITE LRAD, PAINTS, OILS, BRUSERE, \&o PIT waHTs, ebeap line of 21-0z. 200 teet, 9 inches by 7 inches, and 10 inches by 8 inches.
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SATURDAY, AUGUST 10, 1895.

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## CONTENTS.



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CANNELL AND SONS have nearly plants in pots. Wo thould like to end Price List and true practical particulars of it, also Oatalogue of all the beat older tinds in cultivation. No other district touches ours for either plant or fruits.

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Eyacinting, Tulips, Crocus, Lillos, \&ec.
C. G. VAN TUBERGEN, Jun., Haarlem - Holland. Wholesale catalogue now ready, and Meears. R. SILBRRRAD AMD SON, 25, Savage Gardens, Crutched Friars, E.O.
N.B.-Many new, rars, and intereating plants and bulbe Catangu
ENRY RIDES, Salmsman, Central Highest Market Prioes. Prompte cash.

W HEELE R'S I M P ERIA L - Earliest and Hardient Cabbege known, havicy stood the severe winter where all othere have failed. Unlem had direet from the raieer you do not know what thin variety
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BEGONLAS, Double and Single, for Bedding. B kxtra superb in quality. Selectod larke tubars. Alwo for Conarvatory and Exhibition. D. NaVIS, Yeovil Nurseries, Somermet.
['ERNS AND DECORATIVE PLANTS!house, 30 beet selling sorts, 183 . 100 ; ditto large, in $48^{\circ}$, 10 been helling sorto, Gs. doz. i strong seedliags. 6s. 10u, B03. 1060; Adiantuma cuneatum, in $48^{\prime}{ }^{\prime}$, for cutting, 8 s . and 88 . doz. ; ditito for making large plants quickly, 18 s . and 20s. 100; Aralias, 10 s 100 : Oyperus, Ardies, Grevilleas, Geraniums, in $48^{\prime}$ 's. 68 . does Heliotrope, Puchsias, Campanulan, Cockacombe, Marguerites, Double Troppeolums, in bloom, in Asc, 80. doz. : Ficus, Pulma, Dreceanas, Crotons, Hydrangeas, Pelargoniums, 12as. doz. Liste Iroo. Puckeries, Loughborough Junction, Iondon, 8.W. LOnden Farn
CCOTT'S WASP DESTROYER has stood D many jears tost as the only effectual protection for Fruit rrees. acc., from wasps nod Fiec. Price 1s. 6d, and Makers, CORRY A5D CO., LTD, 13, 18, and 18, F street, London, E.C.
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T WEEKS \& CO., Hortionltural Buildert J. to Eer Majenty. H.R.H. the Prince of Walew, H.M. Government, Artaisalty Dept.o War Dopt., Royal Hort. Soc. the Duplex Upright Tabular Boilers. Eing'sRoed, Oheleen,5.W.

## SALES BY AUCTION.

## WEDNESD\&Y, August 21.

A SPLENDID SELECTION:DUTCH BULBS

M
R. J. C. STIEVENS will hold his FIRST SALE of the SEASON by AUCTION, at his Great Rooms, 38 , King Sitreet, Covent Garden, W.C., on WEDNESwill be included an extensive
IMPORTATION of BULBS from HOLLAND, comprising choice named DOUBLE and SINGLE HYACINTHS, TULIPS, CROCUSES, NARCISSUS of sorta, COLCHICUMS *c., consigned direct by some of
speeially lotted to suit all buyers.
Also Early White ROMAN HYACINTHS, NARCISSUS, and Other BULBA, for winter-fowering, from

On view morning of Sale, and Catalogues had.

## Tuenday Next

CYPRIPEDIUM SANDERIANA

$\mathrm{M}^{1}$ESSRS. PROTHEROE AND MORRIS will SELL by AUCTION, at their Central Sale Rooms, 67 and 68, Cheappide, E.C., on TUESDAY NEXT, August 13, half-past 12 o'clock precirely, an importach orchins, by orde ot Messrs. Hugh Low \& Co.

On view morning of Sale, and Catalogues had. Iuesday Next
An importation of 10 Cases, comprising 530 CATTLEYA TRIAKEII, received direct for unteslarved Sale. The plants
fine type. PROTHEROE AND MORRIS will $\mathrm{M}^{\mathrm{E}}$ include the above in their ORCHID SALE on TUES EEXT, Augast 13, at hali-past $120^{\circ} \mathrm{Clock}$.
On view morning of Sale, and Catalogues had.
By Order of Messrs. W.L.L. Lewis a Co., Southgate. GRAND IMPORTED PLANTS, Comprising OBOCLUIUM TIGRINUM, O. CRISPUM GRANDIflobum. odontoglossum inaleayi splendens, and O. Hastatum. Also

Plants of the Rave LeELIA AUTUMNALIS ALbA. Splendidly Grown Established ORCHIDS
Amongst which will be offered CATTLEYA AURRA, the trae type, irich in HYBRIDS; CATTLEYA CITRINA, in spikea; LELIAS, HABENARIA SUSANNE. *c. Also

DUPLICATR PLANTS from a Well knowa Collection, Including EPIXLARLLA' GUATEMALENSIS, MILTONIA SPECTABILIS VIKGINALIS, CATTLEYA TRIANEEI ALBA Lefia rlegans turneri, Catrleya mossize AR NOLDIANA, Grand Plant in Sheath,

MESSKS. PROTHEROE AND MORRIS will Rooms, 87 and 68 , Cheapside, London,
August 18, at Half-past Twelve o'Clock.
On view morning of Sale, and Catalogues had.

## Friday Next.

450 Lotz of ESTABLISHED ORCHIDS from various

## Cattleya Rex

## Mitchelii

Aurora
restita 0weniaua collections, including -

Sobralia mantholeuca CTTRINA HaLenOPSIS in variety, 40 CATTLEYA -SPA, PROTHOKOL

$\mathrm{M}^{\mathrm{F}}$sRID. PROTHEROE AND MORRIS will tooms, 67 and 68 , Cheappoide, London, E.C., on FRIDAY NEXT August 16, at halt-pest $12 \sigma^{\circ}$ Clock.

On view morning of Sale, and Catalonues had.
Preliminary Notice.
TW O D A Y ${ }^{\prime}$ 'SALE
The ussold portion of the wILson collirction

MESSRS. PROTHEROE AND MORRIS have reesived instructions to SRLL by AUCTION, at thoir Contral Sale Rooms, 67 and 68 , Cheapside, London, R.C., on
TURSDAY and WERNRDAYY, Augast 27 and 28,1805, TURSDAY and WEDNRSDAY, Augast 27 and 28,1805,
without Reserve. the Unsold Portion of the WILSON COL Withont Reserve, the Un.

WITHOUT RESERVE.
The Sale contains, among oth Sobralia
plants)

##  Reinec Wagna Osontoglussum Vaybtekennuma <br> Caetliay elegans <br> Sisotiana <br> Cypripedium Morganiee BurTordiense <br> " " Bluntel <br> <br> pramista

 <br> <br> pramista}Mears. sander and Co. will ofter in thin Sale, Witheoum THe Luast Resserve, a large number of gravd plants of the C. BELLATULUM ALBUM new hybrid Lele a white flowered Cattleya labiata with crimena labellathe

LIELIAS, CATTLEYAS, new BYBRID SOBRAITAS HEW DKNDROBES, CATTLEYA GIGAS GANDER

## AUDENSHAW, NEAR MANCHESTER.

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## CELEBRATED BEECH LAWN COLLECTION

## ESTABLISHED ORCHIDS,

 without the slightest reserve, by order of W. R. LEE, Esq.,Who is relinquishing their cultivation, in consequence of having Sold the Freehold Estate

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chester, and have obtained many First Prizes, Awards of chester, and have obtained many First Prizes, Awards of shown.

MONDAYS, August 19 \& 26.
THURSDAYS , $22 \& 29$.

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MESSRS. PROTHEROE and MORRIS will SELL by AUCTION at their Central sale Rooms, 67 68, Cheappide, London, E.C., on
MONDAY, August 19
MONDAY, August 28
THURSDAY, August 22
THURSDAX, August 29
large consignments of NAMED HYACINTHS, TULIPS with white ROMAN HYACINTHS and paper-whito NAB CISSUSU received direct for Unreserved Sale.
These early auctions have been specially arranged in lots to suit the Trade and other large buyerd.
The Auctioneers will be pleased to enter the names of in tending purchasers on their permanent lists who may desire a regular supply of catalogues for these Sales.
Auction Rooms and Offices, 67 and 88 , Cheapoide, London, E. 0

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H. GILLETT, Secretary.

M
AIDENHEAD HORTICULTURAL ANNUAL SHOW Jf FLOWERS, FRUIT, VEGR TABLes, Hes Place on THURSDAY, August 15 . Ratrin Close August 8. A. VARDY, Hom. Sien
chas.
ROYAL BOTANIC SOCIETY OF MANCHESTER.
HE GREAT LILY SHOW.
The First Special Exhibition of this glorione flower eve held in this country. Thoussinds of pots of flowers contributad GRAND SPECIAL EXHIBITION OF GRAPRS.
It is expected that this great display will, in a senso, bo unique in the annals of Horticultural inemonstrations:
Open on THURSDAY the 220d inst, at 12 at Noon, and Open on THURSDAY the 22nd inst, at
Gardeners from any part of the country can purchm Gardeners from any part of the country can purchmo
admitaion tickets at $6 d$. each, by applying to the undersigued on or before the 19 ch inst.
Botanical Gardens, Manchester. BRUCE FINDLAY.
K NARESBOROUGH FLORAL and HORTICULTURAL SHOW.-FRIDAY, August 23 , F. ${ }^{\text {F }}$. Shedules ready.
Entries close August 17.

ANDY (Bedfordshire) TWENTY.SEVENTH ANNUAL OPEN SHOW, August 29, of Planta, Flowt Fruit and Vegetables, Dogs, Pouitry, Pigeons, Rabbits, Eita house Plants: Prizes, $£ 12, £ 8$, £b, and £3. Live Stoek Ratrity close August 14. All other Entries close August 21.

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The society Offers this year nearly £ 300 in Prisen, SPECLAL CLASS FOR DECORATIVE ARR NGEMIM OF FRUIT. e51 in Prizes.
SCHEDULES are Now Ready, and may be obtained tow the Hon. Secs. Messrs. ADNITT AND NAUNTON. Shrewher

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VICE FLORIST'S BRANCH SHOP.-Good connection. Stock and Firturos, 220. Rent, 220. oung Lady. - BLa Des, Fern Grove Nursery, Grimsby.
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THE

## (bardeners' (Thronide.

\&ATURDAI, AUGUST 10, 1895.

STREET PLANTING.

AENUES in the country, if but onoe rightly planted on the right soil, and then left to themselves, are sure to reward suoceeding generations. No oountry in the world boasts so many superb Beeoh, Birob, Oak, and Elm as does our own land. Our parks, royal and private, are one of the pripoipal attraction for our Amerioan consins, and not less for the dwellers in Europe generally, since a tract of country almost equal in extent to all England may be searched for in Germany or even in "fair" France without finding one such vista through a double series of fluted columns as scores of our nobles' and even commoners' seats afford.
But the question to settle here is-how far can we sucoeed in oultivating avenues in a great oity? Can we keep horses alive and well in mines? Time was when such an idea would have been ridiculed. To habitaate them even to oity life might well have been deemed a hopeless undertaking by those who knew them only in prairie freedom. But first by acoident, and then by scienoe, the one and the other doubtful point has been oleared up, and the tree has been found to be as ready to adapt itself to painful oiroumstances as was the horse.
It behoves us, however, to know preoisely to what extent such oonditions of life must be painful in the case of the tree, and what is nowadays being done to alleviate at once itsown lot, and that of the human and equine denizens of the town. As regards the initial step towards the attainment of our objeot-planting-look at the splendid boulevards which have sprung into exiatence on or slone to the site of ancient bastions in continental towns, such as Florence and Geneva. One might suppose that the planting of these was effected with no toohnioal knowledge. But the faot is, that masonry rubbish, though valuable in admixtare, is fatal in all but the wettest seasons to trees, even subarban; and unless preoautionary measures are adopted during the levelling, great expense is afterwards entailed in removing the soil and refilling upon the planting sites. In some towns on the Continent, the pleasure-grounds anthority shoulders all swoh expense, and co-operates with the street-bailding department in eoonomising labour of this kind; and it is this fundamental preparation which, in unoonfined places at least, amounts to a gaarantoo of future Champs Elyaées.

Moner will do almost everything. It is all bat omnipotent; and the London Connty Council is proving that sufficient of it oan be raised in London to execute any highly important improvement. If it be possible in London to widen atreets, lying quite near the City, suffioiently to plant them with trees, it cannot be impossible in any other of our great oentres to purify, moisten, cool the air for such unfortunates as muat parsue their avocations throughout the hot months. The indispensable
widening of streets with a view to leafy avenues is doubtleas costly, and may, in a few cases, be beyond the reach of the community, but for each noble tree-lined thoroughfare penetrating our most densely populated urban districts, there has been, and will ever be, a notable decrease in our dootor's bills-an advantage, to say the least, inveraely proportionate to the outlay on such a street. To dweller and worker in the adjacent houses, equally with the pedestrian or the traveller by vehiole, the benefit is admittedly immense. This embellishment, this hygienic improvement of our towns, should be more oultivated by all local bodies as an "art of peace" of vant, if not of paramount, importance. Were the true economy of this art better understood by suoh anthorities, the rates, even though clightly inoreased, would be more oheerfully paid.

It should beoome true of every city, that there be within it no important point of atreet-intersection from which no green leaf is visible. Where little has yet been done, it will be necessary to set aside annually the sum of $£ 1300$ for a town of 50,000 (this is an average sum, and must vary with the extent of pleasare grounds), and from $£ 200$ to $£ 250$ for eaoh 10,000 additional inhabitants. Let a good gardener be seleoted-one to whom much freedom may safely be acoorded in the management of all the public pleasure-grounds, as well as of the street plantation. Then, not even the poorest wil need present any real difficulty. The most arid sand, or the stiffest clay, no more imperatively than ordinary soils, must be trenched $3 \frac{1}{2}$ feet deep, and as wide, before planting. The difference in the former oase (bad raw material) consista in the bringing-in of good soil to the extent of from one-third to one-half.

Some large German oities (Dresden and Magdeburg), having to deal with hungry sand, underlain only at a great depth by clay, have boldly inaugurated a system of underground watering, and this, though at present only tentative, has so far (some eight years) given good results.

The system may be briefly explained. The general oity water-mains are tapped by a secondary shallow-lying conduit at the head of a street, and from this diverge the tree-feeders at regular distances of 8 feet, their contents disoharging themselves slowly through a small bed of old mortar into the prepared ground. The whole syntem lies only 15 inokes beneath the surface, is ventilated by apright open shafts at every 11 yards, and is, of course, emptied by a atop-cook in autame.
Some fine trees ocoupying cornerl or paved square centres are deemed worthy of a separate system-viz., a conduit forming a square around them, with vertical as well as horizontal feeders, eaoh one foot long, approashing the roote on all sides, and at differing depths.

Iron tubes are used throughout, and it in reokoned that these will do service for fifteen years, when the trees would be very strong, and oould, perhaps, take oare of themselves, if given liberal bresthing and drinking space around their stems.
The average cost of tree up to two years, atriking the average from all situations within the maniogal limitu, will be from 180. to 208 . In small towns leas.

As to the bent kinds of tree for the parpose, one must, of course, be guided to some extent by knowledge of the locality, but seeing that "variety is the spiee of life," and that the trenohing must in all cases be thoroughly done, it is to be expeoted that six out of the eight, comprising Oak, Elm, Horse-Cheetnut, Ash, Lime,

Maple, Plane, and Syoamore, find places in the interior; all the rest-the Servioe, the Mountain Ash, the Hawthorn (red and white), Beeoh and Hornbeam, Birch, Aoer Negando, black and silver Poplars, Willows, and shade Acaoias, the smaller and more pendent trees, in the outlying streets and saburbs.

The laciniate Oaks bear town life almost, if not quite as well, as the favourite Acer dasycarpum, which is at once the most attractive and the most traotable, as far as mere foliage goes. Other Aoers, suoh as piotum, are much esteemed. Esoulus, of course, startles and delights as all in the spring with the grandest flourish, "and the most handsome exhibit of its kind in the world; but the Ash, "queen of the forest," deigning also to reign here, outdistances the Horse Cbestnat in autamn.

None of these trees, whatever their root advantages, will grow well under the shade of a solid phalanx of high buildings, unless planted at a minimam distance of 6 yards therefrom, and line a street of at least 12 yards between their rows. From the edge of the pavement they must be set back fully 24 inches, or they will, sooner or later, suffer serious damage from overladen or swaying waggona.
The trees once planted, three gardeners are sufficient to take oharge of as many as will be found in an average town of 100,000 inhabitants, unless underground watering be in vogue, when another will be required. The duties of these are the following:-

Spring: Bind the nurselings with list, and ayringe. Stake substantially and fasten seourely with strips of strongest sail-cloth (sometimes waterproofed), nailing the ends to the stakes. Placeiron or basket-work soreens around the stems. Whilst sap is rising, tar promptly all barked spots on tranks, including the torn bark edges. Dish the ground twioe during the growing season above rooks; or, in case of completed paving, lift gratings and remove rabbish. As summer advances, lop some lower boughs of all in vigorous growth, to drive them upward. Syringe as frequently as possible throughout their first year.

In winter, re-stake, re-tie, prune, lop, and see to leaders. In botanioal and horticultural matters generally, England is now admittedly in the van of progress; but in forestry, as in urban tree decoration, she has yet to steal a march on some of her continental neighbours. Some few of our towns, of course, form pleasant exoeptions. The general richness of our landscape, unrivalled in any country of the temperate zone, makes a treeless town more unsightly by contrast; and the extraordinary rapidity of our journeys-of our transitions from town to oountry, and vice versá-make the contrast yet more notioeable.

Let us yet again in this matter signslise ourselves. In every fresh step towards priority of merit, we shall ourtelves reap all the advantage.

## New or Noteworthy Plants.

## TCHIHATCHEWIA ISATIDEA.*

Tenf firat thing the English reader will aak when he mees this impracticable name is how to pronounce it. M. de Tchihatcheff was a naturalist of foremost rank, whose work on the geography of Asia Minor in a atandard production. To botanists, therefore,
he is or was the bearer of
"A name which they all know by night very well,
But which no one can apeak and no ove can elll."

[^9]In order to gain information as to the proper promunciation, we applied to a Rassian friend, from whose instructions we arrived at "Tchĕ-hátch-off," with a atrong atreas on the second ayllable, as the neareat approach of which we are capable. The name was Latinised for botanical parposen m "Tchihatchewia"!
For our illastration (fig. 29, p. 151) we aro indebted to Mr. Lynch, the Curator of the Cambridge Botanic Garden, in which establiahment it flowered this year, as also in Mr. G. F. Wiloon' garden at Weybridge. It is a Crucifer, native of the mountains of Armenia on the north wide of the Eaphrates, where it grown at a height of 5000 to 6000 metres, and where it was discovered by Tchihatcheff. It was introduced into cultivation by Mr. Max Leichtlin, of Baden Baden. The plant it a dwarf biennial of tufted habit, with a flenhy taproot, aessile, rancinate leaves, covered with atiff white hairs. The flowern are numerous, in clone terminal paniclen, 20 centimètres acrow; ach flower is of the size of that of Hesperis (Rocket), romslilac or rose-coloured, and fragrant. After flowaring the flower-atalk is bent downwards, no that the silicle becomes appreased to the stem. It contains one or two black seed.. M. Marc Micheli dencriben the plant at length in the Revue Horticole, and gives analytical details with which our own aketchen, taken from the Cambridge pecimen, entirely correapond M. Micheli says it is without doubt one of the prettiest rock planta yet introduced. It liken fall exposure to the sun, and itw stout stalks bew innumerable rose-coloured flowers, which contrut with the long white hairs of the leaves. It is quito hardy, having survived the last winter at Geners withoat protection.
The plant is one of botanical interent, and appeare to be rare. Bentham and Hooker, in thoir Genera Plantarcm, aly that they had not neen ih, and copied the dencription of Boisaier. The co-operttion of horticulturists with botanists has here then, as in to many cawen, been of apecial value to weienca, $M_{0}, M_{0}$

## THE FRUIT CROPS.

IN our laat ianue we gave a synopais of the numerous reporte as to the condition of the fruit crop we had received from all parta of Grat Britain and Ireland. Taken as a whole, the report is uniform in its character, and favorrable as regards both quantity and quality.
The veanon of flowering was later than unual, and there was a very geaeral immunity from sharp froth, although the temperature in most part of the country wat dangeroasly 10 w , and front of nont severity was felt in certain localities in widely 4 ppo rated parte of the country.
The tabular matter already published doer aot allow of mach detail being given, and the grat degree of uniformity in the fuller reporta wo hav received from the kindness of our correspondenta renders it annecemary to publish more than a weot tion of them.
0. SCOTLAND, N.

Moraysulre, -The frait crope look well, and asi! whole they are three weelk in advance of lant nemotis but the weather has been very unateady; hot and cold in turns, and late-keeping varieties will prozt greatly by a warm, dry autumn. Wm. Ogg, Dupu House Gardens, Elgin.

## 1. SCOTLAND, E.

Abrrdiznshibu,-A fow Apple trees on wall have a good crop, but atandard trees are under the average, and the weather having been cold and dry when they wers in blossom, growth is atanted, the wet was a poor one. Pears had very little blow nom, but that which set in fairly good in appearnach Plume and Cherries, fair cropm, are doing well. Forrest, Haddo House Gardews, Aberdeen.

- This is not a fruit district at all; only a ralf few sort are of any use here. We are very arbject to late pring and early autumn frosta. Geomeariteh Carrante, and Strawberries are an extry crop sadich qood \#avour. John M. Iroup. Balmorel Cautle Gardim

Banfrsirge-The fruit cropm, on the whole, are a fair average. Peachem and Apricots showed a fair percentage of bloseom, but owing to the cold night and badly ripened wood they set badly. Pears, on the whole, are a good average. Apples were most abandant with blossom, but have et very thinly; the very dry weather prevailing daring the flowering seemed to exhauat them, and the fruits have dropped badly. Figs on the open wall, which umaslly do well, have affored from the froste of winter, the temperature having gone down to zero. Small fruite are all good, except Black Currants, which were thinned by the apring gales. J. Fraser Smith, Cullon House Gardens.

- The fruit this season with us is good everywhere, bat Apples are almont a fallure. Peara and Pluma, although they afferea in the early part of the season by reason of drought, winds, and low temperature, are a good crop. William Alexander, Mountblairy House Gardons, Turriff.
Brbwichshirb.-Oar fruit cropare, on the whole, good. Trees healthy, owing probably to the scarcity of fruit last year. Bloom was very abundant, and
an a whole is a mall crop. Plums have undergone a severe thinning. Pears only on young treen are a fair crop. I have seen a heavier set of Apples, but these will nevertheles be a large and fine crop. . P P $_{\text {P }}$ Brotherston, Tyninghame, Prestonkirk.

East Lothian.-Pearsand Apricotare not a heavy crop, but Apples, Plums, and Cherries are abundant and good. Lord Saffield, Keswick Codlin, Warner's King, Stirling Cattle, Hawthornded, Blenheim Orange, Cox'a Orange, King of the Pippine, and Worcenter Pearmain are amongat the beat of the Applea. The amall fruite are an extra heavy crop, except Black Currants. All other sorta, eapecially Strawberries and Gooseberries, are plentiful. Wm. McKelvie, Broxmouth Park Gardons, Dunbar, N.B.

Fifasenare-The crop of fruit in this diatrict is extra heavy, and with recent rain the fruit will attain it normal aize. The Applea are enpecially heavy, with the exception of Cox' Orange and Blenheim Pippins on walls and standarda, and Ribaton Pippin is thin on wall treen. Denyer's Victoria Plam is extra good, and the Dammons are the heavient crop ever seen here-at leaat, within the


Fig. 29.-tohihatchewia isatidna: flowers bosi-lilac, and fragiant.
(sEN P. 150.)

We had little or no front, oniy apelis of annlest cold weather, which wonld account for much of the blossom not setting, and again the long drought later on had an equally bad effect, causing many of the fruits to drop off of uch reliable worts as Stirling Castle, Ecklinville, Pott's Seedling, Warner' King, \&c. We have an over-abandant crop of Apples, and the fruit is awelling fast. We never had auch fine crops of Gooneberries and Strawberries as this season, the rain just coming in the nick of time to mave the crop. John Cairns, The Hirsel Gardens, Coldstream, N.B.

- The fruit crope are in general, in this distriet, very good, although alightly thinned by $6^{\circ}$ of frout on June 13. Cherries have been the heavient crop I have had in five yeara. Gooseberrien are mimply an enormous crop, many of the busher lying quite fat on the ground under their heavy load, and all of aplendid quality. I attribute the heavy crop of emall fraits to be greatly due to the abuence of bullinaches in apring, asually they do great havoc amongat the buds. It is premature to way more about the large froits than that they promise well at the prempnt date. J. Ironside, Blackadder Howse Gardens, Edrom.

East Lothian.-Nmall fruite of all kinde are this year an overflowing crop, and notwithtanding the drought. are large and of good quality. Some Apricota are well wet, othert almont bare, and the resnlt
lant twenty-three years. Gage Pluma are acarce, although they encaped ivjury by apring frost. W. Williamson, Tarvit Gardens, Cupar.

Fifestire.-Fruit irees of all sortm flowered most profusely, but owing to the very dry weather and $4^{\circ}$ of frowt on the mornings of June 13 and 14, Pearm and Cherries auffered badly, and dropped a great many of their fruit. Gooseberrien, Currants, red and black, Raupberries. \&c., are a very heavy crop. Strawberrie the same, of extra fine quality, and nineteen day earlier than 1894. John Clark, Wemyss Castle Gardens.

Forfarshurn.-The fruit crop is generally a fair one, Plum trees that were heavily cropped lant season are thin in mont cases. Gooseberry bushes are not much infented with red-spider, which was so bad two years ago; indeed, all frnit trees and bushes are more free from insects and healthier-looking than uaual. Strawberries are a good crop, the rain juat came in time to aave the crop, which was ready ten days earlier than last season. John Ruskin and British Queen. with Garibaldi, arr our best this messon. W. Me Dowall, Brechin Castle Gardens.

- On the whole, the frait crop is abundant, and of good quality; Strawberries enpecially are very abundant. Raspberry canea were damaged by the severe frost in February, the crop is consequently scarce, but of good quality. Goomsbarries in the early part of anmmer were infeated with red] epider
and caterpillar. Apple and Pear trees are looking clean and bealthy, and are carrying fair cropt of fine fruit. Plams, expecially on walle, are fine. Thos. Wilson, Glamis Castle Gardens, Glamis.

Midothlan,-The frait crop in, on the whole, the finent we have had for many yeara. Apple are fully an average crop, and promise to be much finer in nize and quality than usaal. Pears, Plum and Cherrien are bearing heavy crops of firat-rate quality. Apricota, Peachen, and Nectarines are plentiful here, although acarce on open walls in same places in the district. Small fruits of all kind are very abundent, particularly Gooneberries and Strawberries. The long and evere winter did no injary to the fruit trees, owing probably to the remarkable dryness of the atmonphere and absence of wind all through the storm. The apring was late, and very favourable for the fruit, which et thickly in April and May, and awelled freely with the raina, which came just in time in June to save the Strawberry crop. Trees have made a fine healthy growth, and so far have been very clean and free from insect attack. M. Dunn, Dakkeith Gardens.

- For monthe the fruit crops in thim district have anffered from drought, and although growth was almost at a atandatill, yet the fruit held on till the welcome rains came. I am glad to report that Applen and Pearn, and all kinde of mall fraite are now awelling and ripening an abundant crop of good quality. M. Chapman, Eastor Duddingston Lodge Gardens, Portobello.
Roxborghstirb.-Owing to having had $6^{\circ}$ of froat on Jane 13, the fruit propect here were conaiderably altered. Applea, Peara, and Plams net very well, but the fruit of Plums and Pears fell off a good deal, and the Apfle cropis falling a good deal at this date (Jaly) ; atill, on some tree there will be a good crop. Strawberrie a very heavy crop and good (I had gathered 92 pints one day, and 113 pints another day). Raapberries good and clean.' Biack Currante good; I was able to gather 120 pinta from the bushee, whereas lant year I didn't get a pint, owing to the week's frost in May. Dameons are a very heavy crop. Cherry trees have been very clean of blackfly all the season, and all other kinds of fruit trees are clean and healthy. John Page, Monteviot Gardens, Jedburgh.


## 6. SCOTLAND, W.

Ayrsenes.-The frait crop in this district promised, in the early apring, to be very abandant, Trees and bushen were very clean and healthy, and covered with blossom, and fruite of all kind wet thickly; but they received a severe check in conecquence of the long aevere drought. Since the showery woather set in, all fruit treen have greatly benefited, the trees are getting clean and healthy-looking again, and the fruite swelling faut. 4. Wilson, Auchincruive Gardeme, Ayr.

- On the whole the out-door fruit crops are better than they have been for years. Plums enpecially are exceptionally goon, and during my over forty yearn' experience I have never aeen a crop to equal the one I bave thil year. Richard Kitchin, Goodham, Kilnarnock.

Lanarkshirs.-I have been six years here, and have not previously seen such a heavy crop of swall frait, eapecially of Strawberries, an is the case here and in mont parts of the county. Cherrie are very little grown hereabouts; and Peaches, Nectarinea, and Apricots are only grown oat-of-doors in very faroured localition and under special care and man* agement, at the district mffer mach from late apring frosts. William Castle, Blantyre Lodge Gardens, Blantyre.

Abeylhemure.-The outdoor fruit crop in the gardena here are over average. Strawberries were an abundant crop, large and good. We commenced gathering Keen's Seedling on Jane 22. Plam on wall net so thickly that quite two-thirde had to be taken off. Pears on walls carry an average crop: Louise Bonue of Jerser, Madame Treyve, Beuryé d'A manlia, B, d'Aremberg, and General Todtleben are heavily
laden. Apples on pyramids have good crope of fine frait, and on bushes over average. Cherries aweet, and Morellos are laden; also Gooseberries, Raspberries, Brambles, red and white Carrants, but blsck Carrants are almost failare. Peaches, Nectarines, and Apricote, are not grown out-ofdoorn. D. S. Melville, Poltalloch Gardens, Lochgilphead.
Stiplingeritre.-Apple and Plam trees were never more eeverely attacked with graba than this jear, but these were got under by liberal applicatione of insecticides. The young growth is now vigorous and healthy, and most of the trees are well cropped. Small fraitbushes are heavily laden with froit, and have all along been vigorous and healthy; no insects have been seen on them. The frait is unasually larke, which we attribute to liberal manuring. M. Temple, Carron House Gdedens. Falkirk.
Wietonsmirs.-Apples, Pears, Plames, and Cherrien are all good cropn, the trees healthy, and almoat free from insect penta. Apricots and Figs are below the average; the latter auffered from the effecte of the eevere frost, which killed mach of the fraiting wood. Gooseberries are heavy cropa, but the trees are badly infested with caterpillars. Carranta and Raapberries are good cropa, and the frait very fine. Strawberrie were abundant, but owing to tha hot weather were soon over, James Day, Galloway House Gardens, Garliestown.
(To be contisuad.)

## American Notes.

ORCHIDS AT TRENTON, N.J.

## (From Our Oron Correspondent.)

One of the most intereating collections of Orchids at prenent in this country is that of C. G. Roebling, Esq, of Trenton, N.J. It bide fair to excel the ponition which it has already attained, and preparations are being made for extensive additions; four new glashouses are being erected, all of which will be devoted to Orchids. Cypripediame, both species and hybride, form no inconaiderable portion of the whole, but perhaps the chief feature is the large collection of white Cattleyas, to the collection of which Mr. Roebling han directed his fall energies, and it is his desire to make his collection of the white Cattleyas as perfect as possible; with such an enthasiatic owner the time cannot be far distant when the Trenton collection will contain specimens of all the known "Albino" forms. It will no doubt be of interest to many to see the list of thowe already incladed.
Cattleya Triarei alba, forty-five bulbs, ten leade, and grand variety; C. Gaskelliana alba, twenty bulbs, five leads, fifteen splendid blossoms; C. G. alba Trentonensin, very deep orange throat, six bulbs, two leads; C. Skinneri alba, ten bulb, three leads; C. Monniz alba, twenty bulba, three leads ; C. M. alba Trentonensis, eight bulbe, two leada, a grand variety; C. Aclandize alba, ten bulbe, one lead; C. Chocoenais alba, two planta, three leads each; C. Percivalliana albs, nix bulbe, one lead; C. amethyenogloses alba. seven bulba, one lead; C. Loddigenii albs, seven bulb, two leads ; C. Bluntii, tive bulbs, one lead, part of original ; C. intermedia alba, aix balbs, two leade; C. Schrodera alba, four plants, four leadz to bent one; C. S. alba Trentonenais, grand variety, ten bulbe, three leads; C. Eidorado alba, ten balbo, four leads.
Very marked advances on sll other white varieties are C. Gaskelliana alba Trentonenaie, C. Moneme alba Trentonensis, and C. Schroderxalba Trentonenais.
The C. Gaskelliana has extremely rich orange in place of lemon in the throat; the C . Mosais hasa nearly green throat; the C. Schroderp has almont an entire orange lip, anve a amall white margin. They are three noble white forme, and are probably anique plants, superb in thape, and exquisitely pure, well qualified to bear the neme of the home of thir aplendid collection of white Cattleyar.

The white Lueline include L. purpurate var., parent white, except a few faint lines in the throat,
two plants ; L. majalis alba, sixty balbs, nine leade, true: a splendid healthy apecimen; L. ancepe alba, Ball's original variety, two fine plants, three and four leads; L. antumnalis alba, twelve balbs, four leads.
The climate of the district seems to be admirably adapted for the growth of Cattleyas. C. Rex here growe with an astonishing vigour, and in a ahort time there will be a wealth of blossom; nothing could be finer. One apecimen has fifteen flower: from three growthn, and the new bulbs and leaves are as large as thowe of the bent grown Lalia purpurata.
C. gigas is represented by some fifty magnificent pieces, all in flower; one piece carrying twentyeight, and had had more. Among the more diatinct species of this variety is one named Lageri in honour of ita discoverer, who introduced it and many other excellent forma, through Messrs. Pitcher \& Manda. The lip in this variety in very brond, and of the most intensely deep parple-crimson; the remaining portion of the lip in very finely veined, and has no trace whatever of the characteristic yellow spote. The repals and petala are also exceedingly rich; a plant of C. gigas Sanderiana was noticeable for the fine expanse of ita lip. Also in flower was a new Cattleya hybrid, which is named Juno by requent of Mr. Roebling; it is deacribed elsowhere (nee p. 118, Gardeners' Chronicle, Auguat 3).
C. Hardyana, a aplendid apecimen with four leads, attracte by its gracefol form and delicate colouring. Of hybrid Lxelio-Cattleyas the one out of L. purparata and C. Moniz known an L..C. Canhamiana in very attractive. The finely frilled lip and the drooping potais having the pecaliar twist of L. parpurata give it an air of diatinction.
Lxlia tenebrosa Roeblingiana was past ita beat, but it atill atood a worthy reminder of what had been. Its colour, dark rone madder, sepala and petals with an almost black-purple lip, maken it quite free from anything else.
Cypripediums embrace such a host of forms (over 250 , all select too) that it in not ponsible to enumerate the whole ; only a selection can be given. Clone attention is given the hybridizing in this collection, and hoste of young seedlinge are to be seen everywhere, the work in hybridizing being largely carried on as checks on the operations of other hybridista. It is thought, and wisely too, that it is better to reproduce an acknowledged fine hybrid than to wander off into a multiplication of "noveltien" of mediocre rank. However, at the ame time work in being done along original lines, not only in this genas, but in Cattleyas, Lelise, Epidendrums, \&c., and thriving under the akilfal care given them by Mr. Henry T. Clinkaberry, who was formerly well known to English orchidista, nome highly interesting resulte may be expected. One of the most conspicuous of the Cypripedes is C. Gowerianum, with its doraal sepal $2 \frac{1}{2}$ inches acrose, and finely apotted. Others are, to take them as they come, C. Rothachildianum, with foar flowera ; C. macropterum (Lowii $\times$ Veitchii), very elegant, with ita clear rone-coloured sepals; C. Sanderianum, having had four flowern, the piece with six new growtha; C. Smithil (Lamrenceanum $\times$ ciliolare), very rich in colour, well-balanced flower, with ita pretty flat dortal repal; C. Chamberlainianum, in fine vigour; C. Cartivii; C. candatum Wallacei (the albino form of the apecies) bad five flowert; C . Brownii- glorifed leachorhodum-and a whole hout of others. Other noticeable apecies are Coelogyne pandurats with foarteen lead, C. Dayana in fall flower; Dendrobium Farmeri, Lelia Arnoldiana, with four flowers ; Braseavola acaalis, EpiCattleya guatemalensis, with fourteen atrong growths; Dendrobium Falconeri giganteum, with ita showy flower larger than that of the largent nobile; Epidendrum Watsoni, not often to be seen in these collections, becanse not sufficiently ahowr; and Epidendram O'Brieni $x$, which had been in flower for the last eight month, and atill blooming profanely! That in the num of the most noticeabie forms at present in the collection. White Lalias, however, are a featare in their aeason, and mast be seen later.
Odontoglonume are growe to a limited extent, but it is antraggle against the climate, which is too bot
to to modify the conditions-sinking the houne, patting them on the north vide of the wall, \&c., with the result that in this particalar case there are fair signs of uccess. The anme may be said concerning Miltonias, but the very circamstances which are detrimental to these groups give to the Cattleju, \&c., atrength and vigour, which it is a rare treas to eee.
The rapidity with which Cattleya and Lselin need. lings germinate here is very noticeable. Plantas art plainly visible to the naked eye five and six week after sowing the seed; and, indeed, numbera haro been put into tiny basketa six months from sowing. None but the finent varieties are being used in then crosees, of which over fifty have been nown alrends. Leonard Barron.

## LELIA DIGBYANA.

Knows from the time of its introduction from Honduras in 1846 aa Brasaavola Digbyana, Lindley, 4 name which it etill bears in most gardens even at tho present day, despite the fact that its botaical features place it under Leslia and well aeparste it from the terete-leaved Brasaavolat, the plant hu always commanded a considerable amount of attertion whenever ite quaint fragrant greenisb-whits flowera have appeared. Of late year, additional interest has been taken in it on account of the opportunitien which it gave the hybridiat of producing novelties showy in appearance and atrikiang in form. The first of these, and one which has been one of the mont remarkable atrides made by the raisers of hybrid Orchidn, was the Lxlio-Cattleya $X$ Digbyana Monize ( G . 31, p. 161), raised by Meur. Jan. Veitch \& Son between Lexlia Digbyana $\delta$ and Cattleys Mosnix of, and firat flowered by them in May, 1889. The flowers are of a clear rove colour with a few crimson blotches on the lip, the tabe of which is yellow with white veining and nome reall purple dota at its base. In the beauty of ita fringed lip and the fragrance of ite noble flowers it closely follows Lxelia Digbyana, while in their colour and large aize they resemble Cattleya Monsix. It it certainly one of the beat of garden-raised Orchid, and it received a First-clase Certificate at the Roju Horticaltural Society on May 14, 1889.
The Laelia Digbyana of our illastration (fgg, 30, p. 153), wae flowered by Walter C. Walker, Kqqu Porcy Lodge, Winchmore Hill (gr., Mr. Geo. Cragk), and it received a tardy acknowledgment of ith merits at the hands of the Orchid Committee at the laat meeting of the Royal Horticaltaral Socives, when it received a Firat-clam Certificato.

## CHINA ASTERS.

The China Aatere are amongat the beat of all the annual garden flowers. They are of the emied culture, moat free of bloom, and comprise a multitude of forms and colours. They are therefort admirably adapted to profuse and generoas effect il achemes of planting.
The evolation of the China Aater auggesta that of the Caryannthemum at almost every point, and it in therefore, a history of remarkable variations. Tho plant is native to China. It was introdnced into Earopo about 1731 by R. P. d'Incarville, a Jeenil minsionary in China, for [in honour of] whom the geall Incarvillea of the Bignonia family was named. At that time it was a single flower; that in, the raps or light. late florets were of only two to four rows. Them raya were biae, violet, or white. The centre of the flower (or hend) was comprised of very numeroul tabular yellowish florets. Philip Miller, the anmoul gardener-botaniat of Cheleea, England, received seeds of the single white and red Asters in 1793, evidently from France; and he received the ainglo blue in 1736. In 1752 he obtained seeds of th doable red and blae, and in 1753 of the dould white. At that time there appear to have beell 10 dwart forme, for Miller saye that the plante gref 18 inches to 2 feet high. Martyn, in 1807, in that in addition to these varioties meationed
Miller, there had then appeared a "varieguted bion
and white " variety. The epecier wat well known to American gardeners at the opening of this century. In 1806, M'Mahon, of Philadelphia, mentioned the "China Anter (in sorts)" an one of the denirable gardenfannual. Bridgeman, a New York seedsman, offered the Chisa and German Aaters in 1837 "in numerous and splendid varieties," specifying varie-
central florete of the head, and the production of the "quilled" flower. This type of Aster wea very popular forty and fifty year ago. Breck, in the first edition of his Flower Garden, in 1851, speakn of the great improvement of the Aster "within a few yeare," "by the German floriats and others," and add that "the full-quilled varieties are the most
later days, and the many flat-rayed, loose, and fluffy races are now mont in demand, and their popularity is unally greater the mearer they approach the form of the ancombed Chrymathemume.
The Chida Aater bad long aince varied into a wide range of colour of the cyanic serien-shades of blae, red, pink, and purple. I do not know


tien "alba, rubra, coerulea, atriata purpurea, \&c." In 1845 , Eley said that "China and German Aotern" "are very numerous" in Now England.
This name German Aster records the fact that the firat great advances in the evolution of the plant were made in Germany, and the seed which we now use comen largely from that countiry. The fisut marked departure from the type appeara to have teen the prolongation or great development of the
highly eatecmed, having a hemiapherical shape, either it pare white, clesr blue, purple, rose, or deep red; or beautifully mottled, striped, or edged with those coloars, or having a red or blue centre." About fifty years ago the habit of the plant had begun to vary conniderably, and the progenitorn of our modern dwarf races began to attract attention. The quilled, high-centred flower of a generation or more ago if too atiff to satisfy the tastes of these
what ite origisal colour might have been. The modern evolation of the plant in in the direction of habit, and form of llower. Some type varien-gencrally rather audenly and without spparent cant into some novel form, still retaining ite accuatomed colonr. The fiorist fixes the variation by breeding from the beat and most atable plants, and socu other colours appear, until he finally obtain the entire range of colour in the apecifs. So it happen
that there are varion well marked races or types, each of which has its full and independent range of colourr. The Comet type, now the most deserving of the China Asters, illastrates these atatements admirably. The Comet form-the loose open flower with long atrap-like rays-appeared apon the market about 1886 or 1887 , with a flower of a dull white overlaid with pink. The pink tended to fade out after the flower opened, leaving the colour an nawached white. The rose coloured Comet next appeared, and the blue was introduced in 1890. The first clear white was introduced in America in 1892, coming from Vilmorin, of Paris, and the China Aster bad reached its greateat artistic perfection.
The greatest denideratam pet to be attained in the China Aater is a pore yellow flower. There meema to be come general incompatibility between the cyanic and the xanthic, or yellow, series of colours. Yellow of a pare type bas not yet been attained in the annual Phlozes, and many other plants which affect the blues and reds. Yet the Chrysanthemum and various nther plants combine the two, and I confidently expect that the China"Avter will eventually do the same. We already have diatinct approaches to the yellow in the Lemon Gem, in which the flowers are suffased with a lemon-yellow tint, and in a yellow quilled variety introduced this year by Barpee an the Yellow Auter. This latter Atter is one of the crowned type, having a good yellow centre, and a border of whitish rays.
In the immense range of colour, forto, habit, and semon in the China Aster, the flower-lover can find almost any ideal which an snnual Composite flower can be expected to natisfy. In earliness there hat been a dietinct advance in recent yeare in the introduction of the excellent French variety, Reine des Halles, which is known in thic coantry as Qaeen of the Market. This variety blooms early in Angust at lhaca, even when the reed is sown out-of-doors. One of the earlient forme of this type of Aster is Barpee's Queen of Spring, which will bloom by the middle of July if started in a frame by the middle of April. This Reine des Halles type of Aster was introduced in 1885 or 1886 by Vilmorin, although it had long been knowa in the Paris markets, but the atock was controlled by a few perions. This variety alao has the freest and mont wide spreading habit of growth, and the ateme are solong that the variety is very uneful for cut flowert. The Candelabra Asters are very like the Qusen of the Market in habit, but are later.
In anch a range of type, it is imponible to recommend any one of them as atperior to all others. If one wants deep and glowing coloart, I ahould recommend the Truffaut Astern, variously known as Perfection and Prony-flowered, and this type has a mont beautiful pyramidal habit and a high-centred incurved comely flower. The abades of red are eapecially good in this type of Aater. Closely allied to this is the Sample atrain, which has the distinction of being the only well-marked type of American origin. This type originated with Jamer Semple, of Bellevue, Pennylvania, who, by continued aelection, has brought it tc a high degree of perfection The plant is a tall and robuet grower, reaching 21 and even 3 feet high, with long and atrong atems, and very large flowers (often $3 \frac{1}{2}$ inches acrow) with incarred and often twisted rays. Two colours of this fine Aster are now fixed, the pink introduced in 1892 as Mary Semple, and the white, known as Seraple White.
For mgaelf, howevar, I should give the Comet Anters the very firat place amongut all the various tribes. The habit is dwarf snd compact, although free. Bat the great merit lies in the flat, toft, aprending long rays, which give the flowers freedom and novelty of ontline and anbatance which cannot be found in any other Aater. I am particularly fond of the great white Comet, and of the delicate shades of azare-blue. I thould place the Truffant, Semple, snd Jewell strains of Atace the all of similar type-in the second place. The Jewell Anter, kuowa as Apple Blotsom, hat no superior amonget the delicate shades of blash or pink. For
the third place, I should hesitate between the Washington and Carysanthemam-flowered types. The Victorias are generally given a very high rank, and they are one of the most popalar strains in England, particularly for pot-cultare, but they have not behaved no well with me. They seem to be untrue and mixed in type, and lant year many of them gave Hat, open "even," or centres. Yet I should place the Victorias fourth or fifth in my list. Beyond these types, it would be difficult to single out one atrain as anperior to other for purposes of general caltivation. All of them have particular merits, The Qaeen of the Market is desirable for earliness, long atema, and graceful habit, and it is popalar with floriats. The Qailled Asters are now so far outnumbered by the flat-rayed section, that they may be almont claned with the carionities. They are always usefal for variety, and many permonadmire their prim form. One of the beat of these is the Victoria Needle, a variety which distinguished itself on our groand. last year by giving the latent blooms of any Aster. Tae Lilliput,-a alim.growing sort, with amall atiff-petalled flowern-is also one of the favourites of the Qxilled section. Rsading Bearty is also an excellent $Q$ uilled Aeter.
Another type of Qailled Aster is reprenented by the batton-headed German Qailled, with itn scant fringe of short rays. The best form of this is the Betteridge, an improved strain with large flowers.
Amongat the carioas Aster are the Crown or Cocardeau, with a rim of dark colour, and a centre of white or light shades, the Harlequin or particoloured, and the many miniature or tafted sorts, some of which grow only 3 or 4 inches high, and bear a close banch of mall dense flowera. The very dwarf types are atiff and bunchy, but they are often uned for borders, and the plants can be lifted on the approach of froat, and put in pots, where they will continue to hold their flowers for three or four week.
It is imponible to construct a antiofactory clanification of the China Aaters. It is no longer practicable to classify the varieties by colour. Neither is it feasible to clasafy them apon habit or stature of plant, for several of the beat marked types run into both tall and dwarf forms. Vilmorin, however, atill divides the varietien into two groupt, the pyramidal growers, and the non-pyramidal growern.* The most elaborate clansification is that proponed by Barron, from a study of extensive tests made at Chiswick, England. $\dagger$ Mr. Barron hat eeventeen sections, but they are not co-ordinate, and they are really little more than an enumeration of the varions sypen or clases. After considerable atudy of the varietien in the field and herbariam, I find the following scheme to be the mont servicesble for my parpose:-
I. Flat-rayed Astert, in which all, or at least more than five or tix rows of raye, are more or less prominently flat, and the florete open.
A. Incurred or ball-thaped Globe Auterv.
B. Spreading or reflexed.
II. Tubular or Quilled Asters, in which all, or all but the two or three outer rown, of florete have prominently tabalar corollas.
A. Inner floreta short, outer ones longer and flat. Represented by the German Qailled.
B. All the florets elongated and quilled.-Con. densed from an artiole by L. H. Bailey in the Bulletin of the Cornell University Agriculural
Experiment Station.

## Orehio Notes and gleanings.

## cattleya schilleriana dulcotensis.

 A meadripol, and diatinct form of Cattleya SchilJeriana is now in flower in the collection of W. Cobb Esq., Dalcote, Tanbridge Wells, The flowers arelarge, and bave sepals and petais of a rotetinte large, and have zepals and petals of a rose-tinted

[^10]brown, with darker purplish-brown spote, and ia these particulars it resembles other forms; bat the broad reniform front part of the lip is of a rieh crimson-purple, as clear and bright as that aually observed in C. Warscewiczii, and deatitute of tho whitish stripes or rays asually seen in the apecies, The only break in the colour of the lip is an almone imperceptible row of white dot inside of the fringed margin. The lip has a resemblance to that of $C$ Aclandix, bat it is of a darker colour. $J . O^{\prime} B_{1}$

## Bletia Shepberdi, Hooker.

Of the four apecies of Bletia recorded by Gritbach, this is probably the prettiest and at the moo time the one most suitable for tropical caltivation The Orchid is a parely terrestrial one, and thrives in the ordinary soil of the garden, and responda freely to the application of stable manare. In the fonl, section of the Royal Botanic Gardens we have a large bed containing some hundreds of this plant, which it now (April 18) in full flower.
It is probably a somewhat unique feature to sees bed of Orchids in bloom in the open sir, with orer a thousand well expanded fowera at one time. Tho fowers are, however, not developed at one seuon only, but are produced at intervale, though in mallir quantities, at several periods of the year, and the plant consequently serves as well for securing s sapply of cut flowers as for flower garden decore tion. Bulletin, Trinidad Botanic Garden.

## Cobyanthes leucocorys.

A few years ago the members of the genas Cory. anthes were thought to be difficult sabjecta andan cultivation, but latterly, however, they are to be wen thriving and flowering very satisfactorily in nome gardens, the improvements in the ventilation of Orchid-hoases in recent timen having probably romething to do with the success attending the cultirition of thene plants. Coryanthen lencocoryh, 3 Peruvian species, is one of the handmoment and richest coloured of the genan, the large white helmet above the rich rony-purple pouch of the lip being very remarkable. The yellowish sepale and petilu are tinted with parple, and curioualy folded. It her flowered with John Moore, Eaq., Chardwar, Boarton• on-the-Water, who rende it for identification, mid several apecimens of it have bloomed with Meum F. Sander \& Co., at St. Albanr. J. O'B.

## Cypriprdium Kimballianom.

A note under the above heading in the Ondili Reviect, August, p. 238, demande some notice.
It rans thas:-"A tine Cypripediam in figured ader the sbove name in a recent issue of the Gandewn Chronicle (June 29, pp. 800, 801, fig. 125), where the note appears that it is 'supposed to be a hybid between C. Rothachildianum and C. Dayanam nataral hybrid being intended. It will therefore be interenting to complate the history of the plats It is in reality C. prostane, Rebbo f. (Garlem Chronicle, 1886, iin, p. 776), a New Gainen ppeisw introduced by Measra. Linden. It was aftermarti figured in Lindenia(vi., t. 249) as variety Kimbsllianalif and altimately became C. Kimballianam, througd the omission of the specific name. When Cypripedien Rothechildianum was introdaced by Mearr, Sasdr it was recorded as a native of New Guines, Menre. Linden immediately atated that it will identical with C. Neoguineense, which ther wis previously introduced. A flower from e plant pive chased as one of the latter was afterwards nomizo to us, and was certainly C. prestang, as wha iso hatio of C. Kimballianum from another source. Is ha ad been re-dencribed as C. Gardineri, of Gaillemav, Nom confaned with C. glandalifornm, Blame, another thits Gainea epecies not in cultivation. The nert Nes - that C. Rothachildianum is not roo s lite Gainea at sll, but from Borneo. It is nor th to curione that a New Guines apecies should haves onth daty ae a natural hybrid between two Borneasi amed for but after the above confunion one is prepa to th almoat anything, and the leart we

## ttempt to put matters atraight."

The writer bee failed in his landable otifer and oaly encceeded in introducing further contwily
into a aubject emplicated enough, but previously having no besi $0 g$ on the present aubject, viz., Cypripediam $K^{\prime}, ~ b a l l i n n a m$. The fact is, the writer of the note hr "discovered a mare' nent," and seems to havr famped to conclutions and made erroneontsary ses and atatements.

There is, c sparatively, little resemblance between C. Kimballi am and C. prestans, and it is therefore not necesse to point out the differencer, but it may be anid th the leaven of C. prestans are generally obtase, $\mathrm{Gl}_{\text {jy }} \mathrm{y}$, and shining plain green, while those of C. Kimt hanum sre acute, thin, and pale green, with a dark sen reticalation, like those of some forms of C. Harrisiajam. In the flowers the colours are tr ly different, and in their atructure they have little \& common which would give the veriest not an excuse for mistaking the one for the ott The extraordinary large cushioned ataminode of prestans is a featare which places it away any other species: it twisted angularlyaded petals are totally unlike the flat downward red corresponding organs in C. Kimballianam,
1 in C. præitan the lower connate sepale are variably larger than the upper-a very peculiar ature, while in C. Kimballianum the lower are not inch more than half as large. James O'Brien. Fiowering spacimens of C. Kimballianam before as re very considerably different from thone of prestans -figared. Ed.]

## Cattleta $\times$ Hagdyana.

A great number of fine varieties of this âne Cattleya are grown in the gardens at Tring Park, three of the most remarkable of which are C. . $\times$ H. marmorata, whose petala are prettily marbled with crimson on fellow; C. $x$ Hardyana Lavervinenais, with petals of a rowe-purple colour, howing white patches between; and $\mathrm{C} . \times$ Hardyana, Tring Park variety, with sepals and petals wholly of a bright light tint of purple, the labellum in each case being of a dark velvetycrimaon colour, veined with yellow, and velvety in texture. Two other varieties are in flower there at the present time, the flowers of each being diatinct improvemente on the form ordinarily meen in gardent, sad they are fragrant. J. $O^{\prime} B$.

## Stanhopra Lowil varo Amrsiana.

This चariety, which proves to be one of the most beautiful, fragrant, and distinct of the new Stanhopeas, is now in flower in Major Joicey's gardens, Sunningdale Park, Berke. It is of the hornlems wection of Stanhopes, and ite large, glossy, ivory-white labellum, and membranous white sepals and petals, conatitute it a remarkably attractive flower. It was originally named S. Amesiana, but a comparison of the flower with that of S. Lowii, given in the Gardeners' Chronicle, December 2, 1893, p. 689, shown that it ia a white variety of that handsome species. It flowers at intervals throughout the summer, and ite flowers, which are fairly lasting, quickly eucceed each other. It requires to be grown in a banket like all the other Stanhopens. J. $O B$.

## hampton court house.

As may be inferred by the readers of this note, Hampton Court House is in close proximity to Cardinal Wolsay's famous Palace, and it is in fact only separated from it by Hampton Court Green, both places the resorts of thounands of visitors. Very fow, however, of the great crowd that visit Hampton Court have any idea that another beautiful garden is close at hand. Indeed, in the summer the place is hidden by trees, that only here and there can a glimpae of the fine old renidence be obtained. Hampton Court Hoase, with it garden: and pleasure-grounds of wome 9 acres in extent, is the property of Aug. de Wette, Eaq., C.C., J.P. The main entrance is in a direct line with the London Road from Kinguton-on-Thames, with the Hampton Court Green in its immediate front, and the wide expanae of Bazhey Park behind and around it, and although in the very midet of life and gaiety, the occapante enjoy the utmont seclusion and quiet.
Once within the boundary, the visitor will not be
long in recognising, firstly, that Mr. Do Wette is fond of gardening, and secondly, that special effurts are made to beautify the garden. It io by no means an every-day garden, with its aerien of flowerbed and bordern, filled year by year with plants of a atereotyped ordor; bat a garden rendered beautiful for the greater part of the year by grouping and massing a variety of plants with a view to effect; with this object, it is not surprising to meet with Rhododendrons in great numbers, also Roses, particularly the Ten varieties and hybrid from them. Azalea mollis, again, is an especial favourite here, great care boing taken to select colours that will harmonise with those already planted. This is accomplithed by periodical visits to nurseries in Which Azaleay form a leading featare when the plante are in flower. This method is very generally followed when making melections of Azaleas and Rhododendrons. When a new bed is formed for them, the wil hal careful preparation, and it is taken out to a good depth, a proceeding which account for the exceptional vigour and freedom of growth of the plante. Large banke of Rhododendrona form a very conspicuous feature, to say nothing of the many fine atandards also to be aeen elvewhere. For the most part the Azaleas occapy the lower parts of the undulating lawa, receiving shade from mome distant Elm, and thus protected from direct annshine, they last long in flower, and are seen to great advantage. Another charming feature is the Italian garden, ia which there are a variety of subjecta, moetly parmanent in character. Being nemicircular in outliae, and upon ground somewhat raised above the general level, view are obtaioable. In a central posicion is a life-size statue called Dow, represented in the act of poaring dew on the verdure beneath. This garden is encompassed by a Yow hedge, with grassy steps here and there as approaches to the lawn. A low hedge of Capressue Lawsoniana aures conatitute an inner circle, with handsome green vases at interval filled with Hydrangeas in full flower, and immediately inside this is a narrow border, the chief occupants of which are Retinospora squarrona, Equonjmus radicans variegata, and green-leaved Box.
A series of beds in the centre on the lawn are filled with Captain Caristy Rose, and othorn with Marie Baumana. Tae plante of the firat-named are less than 2 feet high, very clean and vigorous, and teeming with buds and blooms. On sither side of the grasey atep above noted, and in other equally suitable positions in this garden, may be seen some noble examples of Golden Junipers. Every one of these is a handsome specimen, about 10 feet high, well matched and furnished with branches and foliage, and well coloured. As an oater circle to the Italian garden, and approached from it, is the Rose garden proper, which containa a choice assortment of Roses, of which hybrid Teas and Teas predominate. One variety may be aingled out as a noteworthy inetance of a Rove for a very dry aeason on a light moil, viz., Hon. Edith Giffurd. It is regarded by Mr. W. Neave, the gardener bere, at the finest Rose of the eason. Qaite small plants of it were loaded with buds and blossoms, the latter opening perfectly. Festooning throughout this garden is Clematis montana, which early in the year is smothered with it snow-white wreath of atarry flowerm. It is sarprising this beautifal climber is not put to more extensive ase in gartions, it tlowers so freely, seeming to do best when left alone, or nearly so. For ascending and covering such thinge as Wellingtonian that have become disfigured, it hat acarce any equal. In the centre of this Rose garden in a recess, from which the golden figure in the Italian garden previoualy alladed to may be viewed. Among the decoration here are some Acer Negundo variegatum standards, with Clematis Jackmanni rambling in the branches. In another part of the garden this species of Acer is used to form an arch over some circular bede of the bedding Pelargonium, Heari Jacoby.
The glass department conoists of the usual forcinghouses, stoves, and plant-houses, in which a general asortment of the useful plants for tablo decoration
and cat flowers are grown. Among those grown for cutting are Carations, represented by many hundreds of plante, both border and tree varietiee. Indeed, Caraation are among the chiof favourites of both Mr. and Mra. D, Wette, and apart from quantities of the leadiag varietie of commerce, are to be found number of varieties which have originated ia these gardens. Quatities of meedinge are raised yearly, with the result that atrain of considerable merit it now eatablished. Many bede are set apart for Cerastion: appearance favoured a good display this sereon.
At the time of $m$ ' visit, early in June, one house, coataining about 600 plants of Gloxinia, made a beautifal diaplay. Particalarly noteworthy were the selft, which can sarcely be equalled for size or solidity of bloom. Some maseive whites, rich crimmon-maroon, and crimon-lake selfs, were quite remukable in their way. The shades of blues and mave with the distincive dottinge and markings were very carious. Elegan compacta has flowers of a rich crimson-acarlet plath, with mottled tabo; this is very free, carrying quite forty fally-expanded blossoms-most of the varieties were raised in the garden. Among the Orchid grown here are Cattleyan, Cypripediams, Dendrobes, Oncidiams, and others; Oncidium Lanceanam being found a very useful flower for button-bolen and the like.

Oatnide is a large and well-filled kitchen garden, every inch of space being occapied to meet the demand. Here and there among the trained Apple tree in the kitchen garden, the Misleto, very abandant in the Limen in the adjoining Bashey Parls, fiads a congenial home, and quite near to the ground. Quite a large border, between 200 and 300 feet long, it devoted to the bolder kinde of berbaceous plants; noteworthy among these being some fiae, well-ettablished clumps of Pxonies in variety, Delphiniums, $O$ ieatal Poppien, Eryagiums, Pgrethrum uliginosum, ad auch like. Beds are also devoted to some of the earlier \&lowering Gladiolus, Blashing Bride, Prince Albert, and Colvillei.
Not the least fine featare of these gardena is the conservatory, sae baildiag of considerable size, atteched to the manaion. Some the apecimen Palme are to be seen here, notably Areca sapida, fally 20 feet high, and in splendid plamage; Areca Bareri, come 30 foet high. Tase, with many othert, together with some artificial rockwork, now beautifally covered with a variety of anbjects, trailing and othorwise, all play their part in gracing thit handsome bailding.

A garden like that at Hampton Court House, coataining, as it does, to mach that is beautiful and intersating, is rarely met with. It is obviously the outcome of much carefal study on the part of it owner, ably aseisted by his gardener; and from one end to the other the gardens are a pattern of good order and neatneas, while the many instances of high-clase cultare that prevail tentify to the ability of Mr. Neave. E. Jenkins.

## THE SEED CROPS IN THE Eastern midlands.

A visir to the seed-growing districts of Lincolnshire shows that taking one part of the country with another and atriking a balance, the seed Pea crops promise to be better than in other parte of the country; the effect of the drought not having been so weverely felt, as welcome showers fell in May and June and during the early part of July. In the more woutherly parts the drought wat more severely felt, and the cropes are in consequence len promising. It is early yet to make anything like an approximate forecast.
Beams. - In the weed-growing districta round Bonton a full average crop of Broad Beans in expected ; at the time of our visit the pods were filling well, the ttalks green and healthy, with little appearance of the amother-fly. The Harlington Windeor Bean in the variety most growa about here, and enpecially for market, the white variets being preferred to the green. French Beant are a somewhat limited crop.
and Suarlet Raaners ales, bat what are baing grown look well. Caltivation for sead is more general in the coanties of $B$ :dfordshire, $\mathrm{K} \neq \mathrm{a}^{+}$, and Earez.
Cabbage.-As a market Vegetable, Cabbages are largely grown in the Buton and Spalding diatricta. The planto were injused daring the winter, and there wan at one time a lack of nasble green stuff. Spring Cabbagea were cat for market earlier than usual, and it being nanal to sow large breadtha of Rape in the antama for sheep feed, the farmers took advantage of the dearth of vegetables, and when the Rape was in full leaf, the leaves were cat and sent to market, finding a ready alle. Plantations for seed appear only in amall breadth, but they are healthy, though a good deal of the seed plant was injured by the frost; what remains is expected to yield well. The two leading varietien of Cabbage grown in the Eastern Midands are the Early Rsisham and the Offerham. Boaton in famoue for the high qualitr of the stocks of each.
Swede and Turnip;crops for need were also mach damagad, and a large acreage destroyed. It was late in the season when the plants commenced to grow ; numbers were aickly, and made no progress when the flowering time came. Swedes were found to be mach cankered, and the bloom was damaged by the high wind which prevailed in April and May; at one time it appeared probable that a very emall quantity of seed would be naved. The rains which fell early in Jane, however, were instrumental in freeing the planta of a good deal of insect life, and those plants which made a later growth promise now a fair yield of seed. Sach samples of seeds already gathered duly winnowed, which we nsw, were of an uneven character.
Mustard.-Nos very many breadthe of brown and white Mastard were aown, owing to the low prices prevailing for seed, the farmers fearing they may produce an unremanerative crop, and so add to their difficulties.
Potatos.-The early varieties are very extensively planted in the Eastern Midlande, and up to moaldingup time the planta made a strong and even growth. Dry weather following proved prejudicial to the production of ample crops, thoagh samples have proved fairly good, and prices are ruling nomewhat high. The sorts chiefly grown for market are Myatt's Ashleaf, Esily Paritan, Dake of Albany, Beanty of Hebron, and Snowdrop. Myatt's Aahleaf farnishes the firat crop, growers depending entirely apon this for an early eapply, and enormona quantities are sent to all parts of the country from Boston and adjacent atatione.
Peus for Market are largely grown in the fine loams found in the Eastern Midlands. For earliest crops the principal varietien are Earliest of All, Blue Alaska, and Harrison's Eclipue-practically three names for the same variety; and these are being replaced by early wrinkled forms of the William Harat type. To follow, come Telegraph, Improved Prizstaker, Harrivon's Glory, and Prince of Walen, all dwarf in growth, as the fertile loam causen a vigorons growth of haulm; but the cropn are heavy. These are the main crop sorts ; for later cropt, Veitch's Perfection and Yorkshire Gem are grown. The attention of growers is being turned to the Early Wrinkled Marrowe in courne of diatribution by Mesers. Satton \& Sons, of Reading. and it is expected some of the older sorte will be diaplaced by these improved typer. Pisum.

## BOTANICAL GARDENS, EDGbaston, birminghan.

Thess gardent, to delightfully andulating, and so rich in treee and shrabs, well repay a visit at the present time. Since the welcome rains came, everything has brightened up wonderfully-freshneese and beanty are on every hand, and the order obuerved everywhere in admirable, and reflecta credit on Mr. W. G. Latham, the Carator. On the terrace the flower beds are becoming gay, while on the sloping bank the bede are not only elaborately planted, but they are effective with varying tints of foliage and
flower. In the herbaceous departent
a wealth of bicon, and the Hagh Nettlefetd alpine garden is fas: becoming farnished. A more delightíal lounge can bardly be met with no near that great indastrial centre-Birmingham.
The thow-house is gay with Fachsias, which Mr. Latham employs with great effoct. Some of Mr. Latham emplary striking, anch as corymbifiora, now in fall bloom ; falgene, triphylla, \&c.; and of the decorative varietief, $R$ ne of Castille Improved, Lye's Casrming ; Albion, a fine dark; Dro Sankey. very diatinct; and a few others are laden with bloom. Taere is a very fine example of Crinum Macowani in fall bloom; overhead Lapageriae rosea and alba are in fall bloom, and the hage doublewhite Camellis, as well as the species reticulata, are seen to be well set with bads.
In one of the greenhoases $S$ ismaphyllam ciliatam -the golden Viae of Brazil, is tlowering abuodantly on the roof; \& very showy climber seldom neen. Francos ramosa is represented by fine planta, the white flowers thickly set on branched inforescences ; F. sonchifolia has an anbranched spike of pink flowera, with a darker blotch near the base, the petala not quite so brosd as those of F. ramona. Strobilanthes Dyerianas deserves to be noticed as a very handsome-folisged plant, its purple leaves glisten with a bright metallic luatre. Crossandra undalæ. folia in a plant seldom seen, ita reddith-orange flowers produced in spikes, and both diatinct and attractive. A very curions plant is Ceropegia Sandersoni, from Natal, the flowers pale green, mottled and veined with darker green, with a peculiar tranglacid appearance, the five potals uniting to form an umbrella-like cap, which is ciliated along the margin with flat capillary procenses. It is a vigorous-growing greenhoase climber, renembling an Allamanda. What in grown here as Alonooa acatifolia, probably a form of incisifolia, is a somewhat dwarfgrowing and free-flowering greenhouse thrub, with bright acarlet flowers, having dark centres. There is a collection of Gloxinias that show fine quality, and taberous-rooted Begonias, of which there is a large collection, are superb and very attractive. Pansiflora Raddeana (kermenina) is flowering freely on the roof; Impatiens Hookeri is blooming finely on the atage, and plante of Fuchaia triphylla exceedingly gay.
In the stove-house, Odoatadenis speciona is atill flowering; ite bright yellow, orange-bhaded, Dipla-denia-like blonsoms, are very showy; Gloriona nuperba is very atriking on the roof; and a hage blossom on a plant of Aristolochia gigas had a great intereat for visitort. Phalænopais Eameralda, from Siam, had two spikes of flowern, though the plant is amall; and the foliage of Acalypha tricolor is bold and richly coloured.
In the aquatic-house the Nymphæas are flowering freely, and in all departmente the most painataking culture can be noted. At all measons of the jear, a pleasurable vinit can be made to the Birmingham Botanical Gardens. R.D.

## The Week's Work.

THE ORCHID HOUsEs.
By W. H. Weirre, Orchid Grower, Burford, Dorhing.
DENDROBIUMB.-Tue deciduoue Dendrobiums muat be frequently looked over, at many of them are completing this season's growth, and have reached the atage when posiibly they may start afresh; it is therefore adviable to go carefully over the planta, selecting those that have finished making their growtho, and have the terminal leaf at the extremity of the bulbe expanded, to be placed on one side of the houes where more light and air can be admitted, and leas moistare given them. They should aloo be gradually exposed to fall sunshine, and until the leaves commence to tarn yellow the planta should not be allowed to remain dry for long togetber. So soon as the plants have become ased to the extra sunlight, and the new balba are fally developed, they ahould be removed to a cooler and drier atmosphere. They are perfectly afo if put in a vinery or any other airy structare where at the present reason the night temperatare is about $55^{\circ}$ to $60^{\circ}$. When fally exposed to the man'eraye, carefal jadgment should be
exercised in watering the plantr, as the sphagnummoss on the surface appears to be quite dry, when noderneath it is not so, and if the roots are tha kept in a conatantly astarated condition they will decay. Examine the plante day by day, and immodiately any signs of the bulbs shrivelling are detecied give them a thorough watering. Planta in emall pots or shallow pans which have become potbound should be taken down and dipped in a pail of water to easure a thorough moaking, but they mans receive no more until the whole compost has becoms dry.
thunias.-The Thuaias which are now falliy exposed to the san are frequently attacked by redexider and black thrips. Taese insecta mant be kept down, or thay will soon establish themselves amonget other plants, and, as aponging of the leares absorbs too much time, the best remedy is to lay the plants dowa on their aides over a tab or bath, and well ayringe the folispe with atrong nicotins: soap in the proportion of 3 or 4 cz . of soap to 1 gal. of warm soft water. Allow the plante to remain dowa for an hour, so that the insecticide may dry on the leaven. Aftermards the plants may be well ayringad with clear water, and pat back in their places.
habenariab.- Habenaria militaria, H. Sananner H. carnea and its pare white variety, nirona, aro now forming their bloom-apikes, and a shard lookout mast be kept to prevent thripe from disfiguring the budn. Nicotine-soap used at the rate of 20 oz, to the gal. of warm water is an excellent and asfo cleanaing mixtare. Every care should be taken that the solation be thoroughly washed off immediasely after dipping, and the plants protected from all sunshine for a few days.

CATtLEYAB, ETC.-Sach plante as Cattlega aurea, C. gigas, C. Rex, and C. Gabkelliana are not commencing to root freely from the newly-made growths. Now is the best time to repot or to surficedreas those that require it. When repotted the planta should be placed at the coolent end of the Cattleys or intermediate-house, where they mby obtain aufficient light and air to thoroughly harden their newly-made balbs. Very carefal watering is neceasary until the plante are re-entablibed, and only anficient ahoald be given to prevent the roota perishing. Leelia parparata, L. tenebrosa and L. cinnabarina are atarting to gron and may also be repotted now. The young breaki quickly send ont a number of new roots, which will readily enter the fresh compost. Keep these Ix:ius well up to the light in the Cattleya-house, and give them liberal treatment in every way until growth is completed. In the cooler part of this honse Vanda of the tricolor and suavis aection are now in fall growth, and a decidedly moist atmosphere should bo maintained arouad them, and the ventilators nereet to them may be opened whenever the external air it above $55^{\circ}$. They do not require to be atatartied with water at the root, only nufficient being necer ary to keep the sphagnum - mons freth and green. The rare Dandrobiam Falconeri giganeenu will grow well ander similar treatment, but a litithe extra sunlight is best for it. Rod-spider is ist greatent enemy, and maut be kept down at any coot. In the Odontoglonsum-house such species sit grande, $O$. Schlieperianum, $O$. Insleagyii and ith everal varieties are making growth, and shoold bo placed in the warment corner. If they are not already repotted, this should be done before the flower-spikes show.

## THE KITCHEN GARDEIV.

By Joier Lamarrt, Gardener. Powis Cante, Weashmol.
spinach. - Prepare a piece of good groand in which to sow Spinach for early winter and aleo opring oupply. The second or third week of Auguat mbit be quite soon enough for early warm districta, but I would recommend two sowing (at the least) eedt made at a week or so apart. The same datst oneo season will not always prove to bo the righand Where this dish in very much apprecisted, make three sowings. Choose, if possible, sp piece if aweet, well-drained, mollow ground. It will affed atagnant in the soil in winter, the frost win woll the crop greatly. The situation should bo koom exposed to sun, but not where frost to be extra severe. Sow in rows apart, and directly the plants are inch ground, thin them they become again take out every other one, leaving 3 inches apart. The thinnings may bo nued ferin table, and the en eowings should provide pleatind
picking during October, Nuvember, and all through the winter, if a mild season. S jot is a good manare for Spinach. Tae Improved Victoris broad-leaved is quite equal to the old prickly variety for standing the winter, and produces a much better leaf.

BROCCOLI-Ljok over bed previously planted and fill up any gaps that have arisen, dust the planta occavionally with soot or lime to keep vermin in check, and slightly earth ap any that require protecting from the wind. A batch of late varietie: may even yet be planted, and will prove of good service neat spring, if the plants are good when put out. A these are dwarf and of compact habit, do not be tempted to plant them much closer than the larger-growing varieties; plenty of room mut be given if they are to atand through a hard winter.

CARROT8.-If pita are not available for these, s nowing hould be made now outside. It will farnish small roots for drawing young, and if a mild winter ensues, they will also be of service in the spring, but they munt be sown in a warm sheltered position on good land free from wireworm.

GENERAL WORK. - Do not by any mean let weed ripen their seeds, but have them hoed ap the firat hot sunny day available. Such crope an Ranner Beans, if bearing heavily, should be afforded liquid manure occarionally. Oaions, Beetroot, young Cauliflower, Tarnipt, and almost all other root cropa bhould be given a dressing of soot when rain is expected. Make liberal sowings of Ocange Jelly and Chirk Castle Blackstone Tarnip for winter use The first wet day will affurd an opportanity to atring or tie in small bunche Garlic or Shallots. The Mahroom house too, mould be cleaned of all refuse and the walls be freahly washed with lime. Walks must be kept clean, and where box edging is used, this mant be done by hoeing or hand weeding.

## THE FLOWER GARDEN.

## By Baiciey WADDs, Gardener, Birdsall Gardens, York.

Lawns and pleasure grounds.- Since the recent heavy rains the turf on grass lawns has improved, and in places where it has been killed by the drought and brown patches are seen, a eprinkling of lawn grass aeed nhould be sown, and a nlight top-dresing of fine soil given with a small quantity of phosphate manuse mixed with it, sweeping the tarf well over after, and rolling it well. Newlysown grase lawne thould not be cat closely with the machine, bat if they are mown eeveral times over with the cythe the first season, the grass will bs better for it. Continue to mow weekly with the lawn-mower old lawn that require to be kept in good order. Where the grass has not been mown daring the dry weather it should be acythed over twice to take off the long bents of grase that the machine will not take. Tre present time is convenient to take out Plantain and other weeds and brashing soil into the hole made; keep grasn edgings well clipped. Gravel patha and carriage drive should be kept free from weeds, and the accumalation of ailt and rabbish about the openings of drains ahould be daily removed during atormy weather.

EMRUB BEDS AND BORDERS shoald be frequently hoed and raked until the falling of the leaves. Daring the next few weeks beds and borders of shrubs should be looked over and notes taken before the fall of the leaf in regard to the transplanting or pruning back of decidnona varietien that are growing too thickly. The autumn growth of Evergreen ehrubs should be encouraged, and all the light and air possible given them. Evergreen are often injured by Lilace and other quick-growing deciduous shrubs which shade them during the autamn months. The budding of doable-flowering Thorns and other deciduous plante may now be done Where the bark of the atock is in gool condition. Evergreen hedges of Privet or Yew should be cut into the required hape, and edginge of Box, Ivy, and other evergreens trimmed. Ivy edgings of bed: recently planted should have the shoots pegged down at they grow antil they have formed a good edging, and old edging: of Ivy thould be kept at free from weed, at posible. Care should be taken not to cut plants of Iry growing as edginge or on walle at this season with the garden-shears ; if the shoote require cutting a knife or pruning acissors should be aned. No large foliage evergreen shrub should have the leavee cat, at this time of tha year especially. Make mecure atrong shoote of Virginian C-eeperi and Clematis growing on walls.

PROPAGATING-Cattings of bedding Pelargo niums should be taken as soon as they can be obtained and struck in boxes out-of-doors in the full sua. Cottings of Verbenas, Coleas, Iresines, and Alternantheras will atrike freely in a closely-abajed pit or house, and if there is a little bottom-heat for them so mach the better. Cattinga should afterward be taken of Pentstemona, Antirrhiaums. doable - flowering Rockets, Ljchnis, Veronicas, \&c. These will atrike very well in a bed under a cold frame and in pote under hand-glasses if shaded from the sun and givea a light rich fine soil, with a good covering of sand.

BEED BOWING-Daring the present month seed should be sown of annuale required for planting in bode during the autumn or eariy apring months, such as Saponaria calabrica, Namophila insignia, Collinuia bicolor, C. grandifora, C. verns, Limnanthes Duaglamii, and varieties sulphures and odorata Silene pendula, Alyanm maritiman. Bartonia aurea. Candytaft, and Virginia Stocks. Brompton Stock: should also be sown on a sheltered border. Prick out Wallflowers as oon as they are ready, also Pangies, Violas, Anemones, and other seedling planta that are required for autumn planting.

## THE HARDY FRUIT GARDEN.

$\boldsymbol{B}_{y}$ W. Pope, Gardener, Bighclere Castle, Newbury.
HEAVILY CROPPED TREE8. - Fruit tree that may be carrying very heavy crops, or that have perfected their fruit and thow signs of weaknesy, will be greatly beneficed by a good coaking of liquid manare, or failing that, a top-dressing of fish manare, gaano, or other good atimalant, which may be applied to the aurface and well watered in. Timely attention to this matter will probably enaure a crop of fruit next season, other condition being favourable, on trees that without auch special assistance would require a season of reat to recover from the exbaustion consequent on heavy croppiag.

RABPBERRIE8.-As soon as fruit gathering in finished on Raspberry plantations the bearing wood should be cut clean axsy, and if more young canea are atill left than are needed for next year's fruiting, these should also be thinned by cutting out the weakeat. The remaining ahoots should be secured to the trellis or other support, so that they may be fally exposed to light and air, and be asfe from damage by high winds. Any loose manare left from the mulching may be raked off, and the surface-soil thoroughly loosened by hoeing. If the arface-soil be left rough, it will be conniderably aweetened. Should the canea be making only poor weak growth, they require to be ansisted by good wateringe of sewage or liquid-manare from the farmyard.
gathering early pears - Early Pearb, nuch as Jargonelle, William' Bon Cbrésien, \&ec., as they approach matarity, may be gathered a few at a time and laid on the shelves of cool frait-room for a few days until required for une. By growing these early sorts in different aspects, and gathering a few fruite daily as they approach the ripening atage, the early Pear meason may be greatly prolonged.

PLUM8.-Plame now ripening mut be afforded some protection againat birds, and as far at postible from wasps, which are this yfar much too plentifal. A fow trees of the choicest dessert kinds thould be covered with hexagon or other fine nesting, fatened closely at the sides at at entirely exclude wasps. Many may be trapped and destroyed by hanging widenecked bottles aboat the walls half filled with syrup. or a capital trap may be made with a couple of hand glanses, standing the lower glass on bricks, one at each corner, and putting a few half-rotten Apples or other fruit inside as a bait; the other glase mast be placed on the top, taking care to fit it nicely round the junction of the two glases. Make a small hole at the top of the underlight so that they may ascend into the trap, from which they are not likely to return. No effort should be spared, however, in searching for and deatroying every nest possible, a daring a fine warm autumn they increase at an astonishing rate.

## PLANTG UNDER GLABE.

By W. I. Axmrin, Gardever, West Dean Park, Chieherter.
IXORAB. -These plante will require plenty of water at the root, and a aprinkling of Clay's Fertiliser on the soil. Ixora plants in flower should be placed apart from others, the blooms being readily injared by the eyringing afforded the flowerlens vection. In the absence of ryringing, mealy-bug is aure to
increase, and in the case of the fowering epecimens, the use of a amall brush dipped in methylated apirits in it destruction is to be recommended. Toe patho and wall in house where Ixores are growing hould be kept nearly always in a mont stafe.

CALADIUM3.-Plant of these started early in apring will bave begua to how aigne of matarity by the dying down of the leaver, and a little less water should be afforded them. If they have become ahabby, place them beneath the atove-stagea where drip will not reach them. When quite dried off, carefally take the tabers out of the eoil and place them in boxes filled with dry and or coconnut fibre refuse, and store thene in a place of not leas warmth than $60^{\circ}$ for the winter.

CYCLAMENs. - Sow at this meason seed of Cgchamen, uiling ahallow well-drained seed-pan filled with a mixtare of loam, leafoil, peat ana and. Sow rather thinly, and not deeper than the frame, cover with a piece of glas, and keep them abaded till germination has begun. Cyclamen plants for flowering this winter onght now to be growing freely, and they will need to have water very carefully afforded, avoiding the extremes of too much dryness or the reverse. In bright weather the plants may be lightly ayringed three or four time a day. To keep the plants from getting one sided turn them round twice a week. It aphis or thrip appear on them, vaporise the house with XI. All.

MIONONETTE.-The main sowing for winter flowering may now be made, putting three or four seed in large 60\%. Place the pots in a cold frame till the seed are ap, when a partly shaded position outaide will suit the plants bent.
hUMEA ELEGANs.-As the young plants fill their pots with roote, continue to repot them, using good rich lonmy soil, potting firmly, and do not affurd water for a few days after re-potting. A cold frame is a auitable place for them antil they are reestablished, afterward placing them out-of-doort, and keeping them there till it is no longer asfe to

## FRUITS UNDER GLAB8.

By bighard Parien, Gardener, Goodvood, Chichester.
WINTER CUCUMBEAS. - If not alrendy done, no time thould be lost in cowing seeds of suitable varieties of winter-bearing Cucumbers. I prefer to raise the plants at this season in the plant-atove, where there is a brisk heat, and lesa fear of the young leavee being injured by red-spider. When Cacumber plante are raised in pits and houses contaiaing old Melon and Cucumber plants, there is alwaye a danger of this occurring. Sow the seede in thamb-pots, and place these on a shelf near the roof-glass as moon as the meeds germinate. In the meantime house shoald be prepared for their reception, so that they may be placed in thair winter quarter: at an early date, to become well eatablished before the autama commencer. The house abould be cleared of all the old soil, the woodwork acrubbed or painted, and the wall lime-wathed twice. A hot-bed should then be made up of well-prepared freah fermentiag mete-rial-leaves and atable-dang-and hillocke of new, light soil prepared for the plantr, which may be planted out when the heat of the bed has declined to $85^{\circ}$. After the plants have been pat out on the hillock they mat be encouraged to make atrong short-jointed shoots and leaven of firm texture, which can only be done by close attention to the ventilation, feeding, and sffording enough warmth. Safficient seed should alway be sown to enable the gardener to have a few plante in raserve in case of accidenta. For winter work I prefer the Cardiff Catle variety, amall-fruited kind that is more productive thas maay of the larger ones. Old plants should bs cleared out as they become exhausted, and the bouses thoroughly cleaned to receive other crops. Tai aleo applien to Melons and Tomatos, so as to allow of the houses beipg painted. Now also is a good time to have the heating apparatus examined, at the firea masy be diapenaed with if necenary for a few daym, to enable the workmen to make good all the bad joints. The work in the differeat departments at this senton conasta in freely ventilating all houses which have borne cropp, and protecting ripe frait from wasp and flex. I have found it necessary to place muslin over the ventilators, an wasp are very troublesome this year.

## EDITORIAL NOTICES.

## Advertisements should be aent to the PUBLISHER.

Llustrations.- The Editor will thankfully receive and selec photographs or drawings, suitable for reproduction in these pages, of gardens, or of remaricable plants, nowers, irces, de.; but he camnot be responsible for loss or injury.
Letters for Publication. - All communications intended for gublication, as well as specimens and plants for naming should be addressed to the Editor, 41, Wellington street, Covent Garden, London. Communicalions should be wRITTEN OY ONE SIDE ONLI OF THE PAPER sent os early in the week as possible, and duly signed by the writer. If desired, the signature will not be printed, but the wris a guarantee of good faith. The Editor does not under kops us a guarantee of good jaith. The Edilot does not unden take to pay for any contributions, or to return unused com munications or illustrations, unless by special arrangement

APPOINTMENTS FOR THE ENSUING WEEK.

## MEETING.

TURsDAY, AvG. $18\left\{\begin{array}{l}\text { Royal Horticulturnl Society's Com- }\end{array}\right.$ $\underset{\substack{\text { mittees, } \\ \text { minster. }}}{ }$ at Drill Hall, West-

## SHOWS

TUESDAX,

Ava. \(13\left\{\begin{array}{c}Horticultural Shows<br>and West Malvern\end{array}\right.\) Bishop's Stortford Horticultaral. Cardiff Horticultural (two daye)
WEDNESDAY, AUG. 14 ¿Eastbourne Horticultural. Wiltshire Horticultural, at Salio bary.
THURSDAY, AUG. 15-Martock Horticultural.

## 8ALE8.

TUESDAY, AUG, $13\{$ Imported and Established Orchids, TRIDAY, AVG. $16\left\{\begin{array}{l}\text { Imported and Established Orchids, }\end{array}\right.$ AUG. $16\left\{\begin{array}{l}\text { Imported and Established Orchi } \\ \text { at Protheroe \& Morris' Rooms. }\end{array}\right.$

CORRECTED AVERAGE TEMPERATURE FOR THE ENSUING WEEK, DEDUGRD EROM THE OBSERVATIONS OF POETY-THRER YEANS, AT OHISWICK.-62.6.

The Phyllozera Certificate.

AT the meeting at Ghent convened to consider this question, M. l'Echevin Brunerl presided. He briefly summarised the state of affairs since the enaotment of the Berne Convention. The Italian Government has at length demanded the entire abrogation of the rules that have proved so futile and which have caused so much loss and inconvenience. It suggests a meeting of the signatories of the Convention to carry this into effect. The Belgian Government solicited the opinion of the Syndicate of Belgian aurserymen on the subject. In reply the Committee of the Syndicate expressed the opinion that nothing short of the entire abolition of the Convention would be satiafactory, and this opinion was received with general acolamation by the meeting. What ntsps the British nuraerymen and those amateurs who have occasion to send plants abro: $d$ will take, remains to be seen. Hitherto they have preferred to acquiesce in submisaion rather than endeavour to free themselven from the shackles. They have an opportunity now of atrengthening the hands of those who desire the abolition of the senseless prohibition, and it is to be hoped they will avail themselves of it.

The Outgrowing of Potator.

Whrre heavy rains have fallen, on land warmed by the late tropical heat, most varieties of the Potato will have commenced to push out a recond brood of tubers from those which are already well developed in the ctse of earlies and seoond earlies, and less so with late varieties. It is the natural consequence of a change from heat and drought to continued rainy weather, and nothing that the cultivator can do in garden or field will be of any avail short of lifting such varieties as are approsching maturity. These will inolude all early and second early varieties, which would be more injured by remuining in
the earth, than by storing them in a oool dark place that is fairly dry. The ordinary clamp will not do at this season, the weather at this seasor favouring sprouting in such store places.
In a season like the present, the advantages of wide planting become more apparent than usual; for the soil, being but sparsely covered by the shoots and foliage of the Potatos, is more rapidly dried by the sun. Moreover, should the disease attack them, the spores would chiefly fall on land under which no tubers are found. With crowded rows, say, from 2 feet for Ashleafs, to 3 feet for the more robust of the earlies and se:ond earlies, the tops oover the soil, and in the case of an attack of disease, the spores of the fungus actually fall on the ground beneath whioh the tubers lay, readily affecting them; in fact this method of planting affords no sort of protection against disease, but rather favours its spread.

If gardeners, and caltivators generally, would practise wide planting and the Jensenian mode of moulding up the stems, a double benefit would accrue in seasons like the present; the smooth, sloping sides of the ridges causing the rain to find its way to the farrows instead of soaking the former, the spores of the fungus, if any, taking the same route. All of this has been often repeated, but there are few who pay any heed to the voice of one crying in the wilderness. Our farmers will be found lamenting, as usual, the loss of money involved in a lessened crop of Potatos, a loss which in most cases is the natural outcome of a lack of preoantion on their part. Of coarse it is, to some extent, a question of expense. Does it pay better to lose a large part of a crop, with some problematical advantage in higher prices being got for the remainder of it, or to follow Jensenian methods? That is a question for experts. The consumer will get what potatos he wants and that are lacking at home from the foreign oultivator, and only our own growers will be any the worse.

The Haatbois
Strawberry.
Those about to plant should not omit the Hautbois varieties. The species is more distinctly delicious than cross-bred varieties; and the bayer should therefore ascertain from the nurseryman or the friend who supplies the runners, if the sexes are fairly well mixed in the plantation from which they were taken. Failing to do this he may get plants all of one sex, or but very few of the other, with the result that the bed will produce li'tle or no fruit. This may be a reason for the rarity of the species in gardens. The Hautbois suoceeds on partially shaded borders, or on one at the back of a wall sloping to the north. In good soil it is a strong grower, and the rows should not be less than 3 feet apart. Once planted on good ground, and top-dressed annually with well-rotted stable-dung or leafmould, a bed of Hautbois Strawberries will continue in bearing for a dozen years. Sometimes the plants in old beds, if annually manured, ran too mush to leaf, and some discretion should then be exercised in the matter of donging. There is nothing to be gained by frequently making plantations of this species, the plant seeming to succeed better when growing in thickish rows, which afford a good deal of shade to the fruits and the roots.

If a plantation appears to have seen its best days, the runners, which are sare to consist of a sufficient mixture of males and females, should be allowed to cocopy the alleys, rooting all over them, bat being thinned out where standing at a less distance than 6 inches apart. When the
fruiting season is passed, the old plants may be shovelled off, and the land where they atood double dug.

The varieties are the Royal Hautbois, one white, the other purple-fruited, and larger tha any of the others, as well as being rioher flavoured. Prolifio Hautbois (Belle Bordelaise) has small fruits, almost black on the sunny side, and on the shady side purple. The fruit has the peculiar flavour of the race.

Angrecum pellucidum (see Sapplementary Illuatration).-First introduced by Mesars. Lodara from Sierra Leone in 1842, and since that time ocer. sionally imported, bat only in small quantitien, this beartifal species may be caid to have never been gencrally cultivated. Although not having the large flomen of A. esquipedale and some of the other apecies, it has always been regarded an a plant of aufficient bearty to warrant its being more widely distributad in gardens when the enterprise of the collector wew fit to make a good importation of it. Oar illuatration, taken from a photograph of a specimen which has been growing for some years in one of the warm Orchid-houses in the gardens of Sir Trevor Lawbence, Bart, at Barford, Dorking, show to what beauty the plant may be made to attain by careful caltivation, ita long sprays of opaque cream-whits flowers depending from among the flewhy dark green leavea being gracefal in the extreme. Angracum pellucidam may be grown in a pot, but if $\mathbf{s o}$ caltirated means should be provided for anpending it when in flower, or the spikes are apt to stop thort and not display their full beanty. Generally speaking it requires the ame kind of treatment as the Pho lænopis-a warm moist atmonphere and protection from bright sunlight in summer.

Royal Horticultural Society.-The nex meeting of the Roval Horticultural Society will be held on Tuenday, Augatt 13, in the Drill Eall, James Street, Victoria Street, Weatminater. Ab 3 o'clock a paper by Mr. A. B. Fremman-Mitfond os "Hardy Bamboon" will be read.

Mr. Barron's Retirement,-In reply $\hat{1}$ namerous enquiries, we are in a position to atato that, after the long vacation, ateps will be taken to securt that a pablic recognition of Mr. Barros's long and loyal services to horticulture be made by hin friends, and by thone who value the conaciention diacharge of duty under very difficult and deprening circumatancen.

Leicester (Auaust 6). - The great exhio bition of Flowers and Fruits in the fine grounds of the Abbey Park commenced on August 6 amid ant shine and showers, and was a very accenful show, likely to recoup the Corporation for its lag outlay, and the energetic organiser and anpars intendent, Mr. Joun Burn, for the amount of ubout and anziety which he must have had before nucceeded in getting nuch a beautiful and harmoniout display in the six great marqueen in which the exhibits were arranged. At 1 o'clock the exhibition was opened by the Mayor, who, in his speech, which showed how truly he was a gardener in ham touched on some of the exhibite, and enpecially ond the praiseworthy display made by the cottager an of allotment gardeners, which he asid formed the mont natisfactory proofn of the beneficial renalis of these shown, which had now been running at the Abbey Park with increasing success for ten of thirteen yearn which had elapsed since the mill d Mr. Jomr Burn had redeemed it from an annigh maruh. A great crowd of visitors flocked to swod show, which embraced many very fine exhibits, weent the best being a grand diaplay of Begonise by Paro Ware, and of Caladiums by Mesurs. Joum falle Soz. In our next isaue we hope to give \& full account of the show.

The Ubefulnegs of Gardenina.-Sppalion at the Hawarden Flower Show Mr. Gudir remarked:-"You may depend apon it there is

immenae deal to be done in thi conntry by drawing forth the boanty of old mother Earth in detail. It is all very well to talk about machinery-and there was a time when people ased to think that the steam plough was going to drive hand labour out of existence-and undoubtedly in manufacture the advances of machinery have been astonishing; but as regards cultivation of the earth, as regards garden cultivation, as regards all mall caltivation, depend upon it there is more room than ever there was for both adding to the atore of the beautifnl product of Natare, with the capacity of producing which Provideace hat bountifally endowed the oil, and likewise of increasing. and largely increasing and consolidating, the efforts and advantages of raral life. The uas of gardens, the univeral provision of gardens, is a matter of the greatest importance to the country. It is of the greatest importance also, and mont desirable, that other wall holdings, as they are called, thould be multiplied; and I trust-I mont earneatly trust-the day will come, and will soon come, when thene holding will be made univeral."

The Royal Botanic Society.-The fiftysixth annual meeting of the Royal Botanic Society will be held in the Gardens, Inner Circle, Regent's Park, on Saturday afternoon, the 10th inst., at 1 o'clock. The meetingu, writes Mr. J. S. Robinstern, Hon. Auditor R.B.S., 56, West Cromwell Road, S.W., have been held on the same date aince the Society was founded in 1839, bat if they were to take place at a more convenient period of the year, a much larger attendance of the Fellowa would uadoubtedly be secured, and it in thought by many that in this and in other matter the charter might now with adrantage be revised. The businesa to be transacted include the election of eight members of the Council, the presentation of the Council and auditors' reports, and the consideration of a resolution to be moved by Mr. J. S. Rubinstein, congratulating the Society on the great success of the experimental opening of the Gardens to the public on the Bank Holidaya and other day this jear, and recommending the Council to admit the public to musical promenade to be given next season on the afternoon and evening of every Monday and Saturday.

Torquay District Gardeners' AbsoCIATION. - The third annual outing of the above Society took place on Tuenday, July 30 , when about forty member proceeded in brake to Ashburton, Buckland Drives, Widecombe-in-the-Moor, and Heatree, By the kindnens of Mr. B. J. Bastard of Backland Court, the party were permitted, under the gaidance of Mr. W. Lirace, the head gardener, to pass through the most choice parts of the grounds. The grandear of the acenery commanded from the middle drive at this place is unsurpassed in Devonshire. Luncheon was had at Widecombe, and by the permianion of $\mathrm{Mr}_{\mathrm{r}}$. J. Kitsors, an inspection was made of a portion of the plantations recently made at Heatree. It was remarked that the Rhododendrons were exceedingly thriving, as were alno such Conifers as Caprescua Lawnoniana, C. macrocarpa, Thuiopaie dolabrata, and many othern. These did not appear to have anfered at all from the severe winter, in pite of the exposed moorland position. The party started on the homeward journey via Manaton, Becky Falle, and Bovey Tracey, an enjoyab le day having been apent. Mr. F. C. Syale (Hon. Sec.) was remponaible for the arrangementa.

## Cotton, Coffee, and Vanilla Culture in

 TAHITI.-Referring to the cultural industries of Tahiti, the Britith coneal states that Cotton has always been the favourite culture of the native population, but owing to the extremely low prices that have latterly ruled, both locally and in Earope, its caltivation is being gradually abandoned. Tahiti Cotton no longer paya to produce, and it would be an excellent thing for the island and for some of it dependencies if the native could be indaced toundertake in ite place the culture of Coffee, which grows in the imland under the most favourable circumatances. The quality has been declared by Europeanand American expert in Liverpool and New York respectively to equal West Central American in aroma and in general quality. Coffee would be the ideal cultare for the natives, bat to far only a few of them have been induced to set out small patches, for the reason that an they only live for to-day, they cannot as yet be persaaded to undertake an enterprise from which a return can only be expected after the first three yeary. The one attempt made by any foreigner in this direction-a amall plantation of seven acres, planted some three years ago-shows conclusively that this enterprise could be made to pay. The annaal production of Coffee ia at present 3 to 4 tons only. The cultivation and curing of Vanilla in Tahiti is being neglected in consequence of the inferior quality as compared with that of Mexico, Boarbon, and Seychelles, and the corresponding low price that it command. A hope, however, is carrent in the island that the market value may be increased by the adoption of a more efficient method of curing the bean than that at present in use. The annual export of Vanilla is about 15 tons.

Isle of Wiaht horticultural improveMENT Association, - At the recent monthly meeting of the above Association, held at Shanklin. there was a good attendance of membera and friends to hear a paper on the "Caltivation of Taberousrooted Begonias," by Mr. W. W. Sheath, of Ventnor. $\mathrm{D}_{i}$. Groves, B.A., J.P., presided. The paper contained some valuable advice on raising needlings, and their general cultivation. Begonia flowers were contributed by Mears. Cannell, Laing, and Box. The next meeting is to be held at Ventnor on September 7, when a paper on "Hardy Trees and Shrubs" will be read by Mr. C. Snoor, late of Kew Gardens.

Lilies at Twickenham.-Mr. H. A. Tracy, The Orchid and Lily Nuraeries, Amyand Park Road, Twickenham, grow Lilies extenaively for cat bloom; he has been catting for a considerable time, and there are atill succeasions coming on that will lengthen out the season some week longer. The principal varietien grown in quantity are Lilium longifloram var. Harrisii, L. apecionum var. Melpomene, and L. n. album novam, the lant-named being considered the parest white, while Melpomene is the richest crimson variety of the fragrant L. speciosum. For forwarding to a dietance the flowers are cut in bud just before they open, and at the end of the journey they open fresh and clean, and last a long time, The last few buds on the spikes are cut together with long stalks, and are mach sought for use in indoor decoration.

Forcing Lettuces in Pots.-In a recent Bulletin of the New York Agricultaral Station, we find a paper on this abject, of which the following is the sammary:- The growing of Lettuce in pots is believed to have several advantage over growing it in benchen, namely- 1 , by inducing a compact growth, and favouring early heading; 2 , the plant are tranoplanted but once, that is, from the flats to the pots, so that the growth is not checked bs a second transplanting; 3, plants may be marketed without disturbing their roots, and so they may be kept perfectly frewh for a long time-an advantage that is much appreciated by retail dealers; 4 , as moon as a plant is removed from the bench, ite place may be immediately filled with another potted plant, so that the entire bench-room may be kept conatiantly occapied. The method may be briefly outlined as follow: -The bench, 6 incher deep, is half filled with well-rotted manure, over which is spread 3 inches of soil. The soil is made of one part by mesuure of msnure to three parte of rotted sod. Should the sod be from a heavy loam, it is made lighter by adding one part by meature of sand to three parte of sod. The plant are tranuplanted but once, and that is from the meed flate to 2 -inch pots. The pots are plunged into the soil on the benches, so that the tope are covered with nearly half an inch of soil. The diatance between the planta on the bench varies with the variety, but is usually 10 incher each way. Before the pot is plunged in
the oil, it is turned apaide down, and the underside of the leave thoroughly dacted with Tobacco to prevent attacke of aphis. The upper-aide of the leaves is then dusted with Tobacco, and about a week later the plant are dusted again, being eapecially careful to apply the Tobaseo thoroughly in the tender centres of the growing piants. As to the care of Lettuce ander glans, is may be aid that the house should be kept at a cool, even temperature, ranning a few degrees above fify in ths day, and remaining at fifty or a little below at night. Sudden flactuations from high to low temperature, or vice versa, should be avoided. The plants should have plenty of fresh air, enpecially on manny dayz, when the temperature is high outaide. When the planta are watered overhead, it is best to select a time when the foliage will dry quickly. Avoid watering so late in the day that the plants will not dry before night.

Vriesias.-M. A. Griessen in publishing, in Le Jardin, some usefal tables, giving the names of hybrid Vrienia obtained elsewhere than in France. The history of the discovery or production of each variety is brietly given, and M. Griessen in doing service in thus pablishing the origins of the plants now, before, by cross-breeding, they have become too intricate to be traced.

Henna.-The Henaa plant (Lawsonia alba), which is a shrab foand widely diatribated throaghoat India, Peruia, Kardiatan, Syria, Egypt, and Northern Africa, sad which is so well known for the use of its powdered-leaver as an orange-yellow dye by the Egyptians from remote antiquity, seems to be somewhat extensively grown in the gardens outside the city of Tripoli, where it is asid to be highly appreciated by the people as a dye. The tixige and leaves are gathered three timas a year, the root, which is allowed to remain in the soil, reproducing the plant almost indefinitely. The Arab women use it to stain their feet and finger-nails, and it is said to be very effecacions in theicure of chilblains. Last year the value of the exports of Honaa from Tripoli, chiefly to Tanis and Algiers, scounted to $£ 8000$. The mode of prepariag $H$ ana in the Eist is very simple, and consists of reducing the leaves and young twige to a fiae powder, to which eometimes in added a little Catechu. To use it-the powder is made into a pasty mans with hot water, and apread on the part to be dyed, where it is usaally allowed to remain for a night before being washed off.

VALONIA.-The growth of the Oak plantation: in the island of Z 9 , one of the Cyclades, is said to have increased in a remarkable degree of late, and a corresponding increase in the next crop of Valonia is anticipated. The acorn-cap containe a large proportion of tannin, and is convidered in quality equal to that which comes from Smyrna. The average annaal produce is from 20,000 to 30,000 quintals (one quintal equals 1232 b. ), but on favoarable occasions even double that amount is reached. Last year's produce was eatimated at 25,000 quintal. valued at $£ 10260$. Aboat 15,000 quintals were sent to Trieste, 7500 quintal to Great Britain, 2500 quintals to Italy, and the rest to Syra.

The exportation of Cut flowers from HOLLAND.-A was annoanced in our inave for July $\% 7$, a meeting took place at the Hammume Hotel, Covent Garden, on Jaly 26, for the purpose of forming an avnociation to oppose the exportation from Holland to this country of cut flowers by thone who have sold bulbs for forcing to English growert. The meeting repreaented the horticultaral trade, sind a committee pro tem. was appointed to draft ralen, sc., for the management of the anociation. It it proposed to call another meeting shortly, but in the meantime the committee deaire that all who are willing to join the ansociation hould communicate with Mr. C. H. M. A. Alderson, Hildu Vale Road, Farnborough, R.S.O, Kent.
flowering Plants of New South Wales. -The Government of New South Wales is publinhing a series of coloured plates illastrative of plants of conomic value. The work is edited by Mr. Marors, - sufficient guarantee of ith excellence. Mr

Matden is ansiated by Mr. Campbell. The platen are characteristic, and the letterpress popular but accurate, including deacription of the plants and indication of their ases. The Waratah, Telopea apeciosissima, Eacalyptus corymbosa, the blood wood, Actinotas Helianthi, the flannel flower, the Acacia glaucescens, the coant Myall, are the planta figured in the first part.

The Great failure in Turnips and Mangels-To meet the sbove, Mr. Matbice Moriarty, of Mallow, Ireland, writes:-"I have many hundreds of millions [!] of Cabbage plants in variety which I will give away to anyone who may zend for them. Scotch and Eaglish seed merchante will not take them, being disappointed in not getting a apecial traffic rate, and farmert and others may as well have them an for me to plough them in."
horticultural Club.-A very accessful excursion wan made by tome of the members of the Club and their friendin on Tuenday lant; the first place visited was Claymar, Finchley, one of thone extensive establithmenta which have of late yeart aprung up in the neighbourhood of London and other large town for the parpose of growing Grape and Tomatos. It was a revelation to many of the vinitors to see houses 450 feet long filled with Grapes, one house having seven tons of Grapes havging in it. When they are ripe it mast be a wonderful sight; at present they are jast beginning to colour. The party, numbering forty-three, was hospitably entertained by Mr. Peter Kay at laucheon, after which they drove to Hatfield, where they were conducted throagli the park and gardens by Mr. Nobman, head gardener to the Marquis of Salisbitry, who had kindly given permiseion to visit this noble place. Afterwarde the membere adjourned to the Red Lion, where dinner was served at 7 o'clock. There was ah ananimoan opinion expressed as to ita 'being one of the most enjoyable exearsions the Clab had ever made, and the members were deeply indebted to Mr. Kar, who undertook all the arrangemente, and under whowe able management everything went off plearantly.

## PLANT PORTRAITS

Apple Jefferis, Garten Flora, August 1.
Brownea areiza, Jentham, Illust. Hortico'e, Jaly 30
Carpinus cordata. Japan, Garden and Forest, July 24
Chbysanthemus Walter seaman, yellow Japanese ncurved. Revze Horticole, August 1 .
Evlophielia Elizabethe, Rsoue de 1 Horticulture Belge, agurt.
K/empfeata Ginbenti, Reoue de $l^{2}$ Horticulture Belge, tugust.
Lharouroceria Pringlei, Gardea and Forest, July 10
Spheralcea abutiloides, Garden, July 20

## Home Correspondence.

THE LATE JOHN WILLS. - All your older readers will endorae "R. D.'" genial estimste of the character and geniun of our departed friend. Our first friendehip was formed over Viola cornuta and the pure white variety, the latter being atill one of the mont striking and aveful. Though our paths lay in apponite direction through mont of our lives, our friendehip continued. It would be almost an impertinence to add a word to his great work, so well dencribed by "R. D."" though only those who knew what table and room decoration were when Will atarted can appreciate how much modern bouquetiste and decoratore owe to Mr. and Mru. Will. Bat there was one featare in hit character that I may be permitted to refer to in the Gardeners' Chromicle. Few men had more power of diccovering ability, or were more denirous of pushing young men of talent to the front than Mr. John Wills. And not afew of thome that he virtaally made decorators hold high ponitions to-day sither in the frim or other ontablishroent of high atanding in this new induatry which Mr. and Mrs. John Wills may be naid to have created on a broader bavis and more artintic
linem, $D$ T. F.

8T. DUTHUS PEA.-I way pleased to see a note in your paper of Jaly 27 recording the excellence of this little-known Pea, I have cultivated it thit
"A. H." asyn it is. It atand dry weather better than any other Pea, and even now the haulm ound and green and pods fit for picking, although the seed was sown on March 19, at the ame time as Sutton' Prolific. Since then I bave sown Early Champion, Dr. Maclean, Veitch' Perfection, and other varieties; gathered their crops of pods, and cleared the ground of them, in one or two case cropping it again. The dry eason and a beavy atiff soil have mainly cuntribated to these Peas passinz away so quickly. St. Duthus, however, has stood well. I find it rather longer in coming into ane than some others, bat when once the pods become fit for table it continues for a long time in bearing. The pods are well filled, eight or nine seeds in almost every one, of a deep green coloar, and the flavour capital. An a mid-season variety it is, I think, very valuable. I have tried this season Veitch's Ranner French Bean, anwing it at the ame time as the ordinary Scarlet Ranner. and this is proving a naeful Bean, ruaning well and producing a splendid crop of podz, tender and sweetflavoured. Satton's Epicare and Tender and Trae Bean are also very desirable variaties. The French Ranner Buan I obtained from R. Veitch and Sons of Exeter. W. Swan, Bystock, Exmouth .
a red maréchal niel rose.-I noticed a paragraph in your issue for Jaly 20, p. 64, an abstract from one of the German horticultural papert, of a red Maréchal Niel Rose, raised by D:. Mü ler, and the result of a cross between the above and General Jacqueminot. What a lovely Rose this mast be, and what a great pity if Dr. Müler doen not send it out for the use of the general public, and so pat it within the reach of all. What a charming flower it mut be if it have all the characteristics of the type W. Bow'es, Adare Manor, near Limerick.

CATTLE POIBONING BY THE COMMON YEW. In an article in the Spectator on the materia medica of animala about a fortnight age, is a mistatement reapecting snimala and the leave of Yew, which it is worth while to correct, because many people do not underatand about the poisonoua quality of Yewn. In that article it is atated that animals which have constant access to Yew avoid eating it, knowing it to be poisonous. This is quite untrue. On the contrary, they habitually eat it and are very fond of it, and no one ever heard of their being the worse for it when they eat it in this manner. I have no doubt that it is to them a stomachic and promoter of appetite. Farm lada are nometimes prosecuted for killing farm horses by giving them powdered Yew leaves, and I find, on inquiring what they do it for, that they give it to make the animals eat their corn, when they are only getting corn and are tired of it. Now dried Yew leaves are undoubtedly more poisonous than green leaven freth from the tree, and if they give the least bit too much of it, eavecially if the horses are not accustomed to eating Yew leaven, it is liable to kill them; but the leaves of the growing tree are also dangeroun to animaln which get access to them andenly, and when they are not accustomed to them. All the casel of Yew poisoning that I have ever known or heard of have arinen that. I know of many places where there are Yew trees in the pasture-fielde and in the edjoining hedger, and any one who will take the trouble to look at anch ones will see that they are habitually browaed by the cattle. I believe that the best afeguard againat Yow poisoning is always to have Yew tree within reach of the cattle, and I therefore constantly plant Yew trees in the hedges of pastare-fielde, or in the fields themselven. C.W. Strickland.

QLOXINIAB AT TRING PARK.-Few planta are more ahowy at this season than Gloxinias, when well grown ; and the fine atrain now obtainable from the leading seedmen give varietien of much beauty, A houseful of them is one of the sights at the prement time in Lord Rothechild's gardens at Triag Park. Mr. E. Hill, the gardener, hat arranged the plants together with Isolepir gracilis, the latter also forming an edging to the atage on which they are placed. The atrain is characterised by the brilliancy of the acarlet and crimson forms, and the grea beanty of the potted varietien, the potting and marbling being in all thades of row, criconon, and parple. The foliage is large and manive. Great caltaral bkill is required to bring so many Gloxinia plante to auch perfection, bat they are well worth the trouble, J. O'B.

RICHARDIA PENTLANDI.-An bearing on the re marke on yellow Richardian in their native habitat far-
nished by Mr. Cban. Avras of Cape Town (Gardeners Chronicle, Jane 22 p. 764), it will interest bim and others to know that some of the tubers collected by him are sending up their rich golden-yellow spath in Lord R sthochild's garden at Tring Park. Both the plain green-leaved and the spotted-leaved varie tie:, representing R. Pentlandi and R. Elliottian, seem to have been collected together, for both appear in the batch received from Cape Town. The pathes, althongh seeming to differ slightly from those of the forms previously in cultivation, are very handsome, and in most of them a more or leas dend purple eye is at the base of the spathe. Mr. Hill, tho gardener at Tring Park, pots them in good roagh soil, sach as is generally used for balbs, and grom them near the glase of the roof in an intermedian hoase. J. $O^{\prime} B$.

TABLE DECORATIONS AT THE NATIONAL CAR NATION SOCIETY'8 8HOW.-It appears to me that the committee of such a society as the above-named, when offering prize for the best arranged dinnertable decoration, should certainly use more dircrimination in selecting the judges, and should alm word their achedale more explicitly, atating whethe the object to be attained is quality of the bloom employed, or on the other hand the display of tuta and skill in their arrangement. Tu my mind the judging in the decoration classe at the Cryal Palace on July 24 was most unsatisfactory, the verdict in almost every case being in farour of quality of flower, no matter how heapy or clamer the arrangement. In class W., fur the beat arranged dinner-table, the 1 st prize was aparded to an exbibit which, although containing some superb blooms, nu arranged in anch a manner that no person of tatit would tolerate it on his dinner-table, the objes evidently being to crowd on as many blooms as the table was capable of holding, totally regardlen of the apace required for plates, \&c. I am unacquaineo with the jadges who were responsible for thene del. sions, and do not even now know their namet, bat am certain that however estimable they may bo il other respects, they were totally unfit to jadge in cases where taste and refiaement are the necemarg qualifications. I must apologise for taking op so much of your valuable sace with these remain, but it is a subject in which I , in common with ma others, am depp'y interested, and it il a caane much regret to notice that the best exhibion are being driven out of the competitions throgg the incompetence of the judges selected for the decision of the award in thene clasien, obvious that the skill necessary for this purponi siltogether different from that required in the gromad of flowers, and might we not expect to find far man all-round satisfactory decisions coming from who have had years of experience in this mol art of table decoration? F.W. Seabe, Time Nurservan Sevenoaks.

8LUG8 DESCENDING BY A LINE OF SLIMESome years ago I remember aeeing in your columin a remarkable tatement from an eye-witaest wad a slog let itself down from the glass by a rope memes by it own alime to a subjacent plant. No nowe wat ever made by anyone upon it-pernaps niby felt equal to capping such a statement ; pomilich was passed by an a fact, and need not and hope further. I did not donbt the atatement, an wis some day to observe the mame myself. them in this case) who waits all thinga (even what I am writing on, readers may wy). day my gardener pointed out to me a no plath Lilled after having so let himself down to appol The alug wain nearly 3 inchen long; he to an Olow the glass, and did not know how to ges below him toglonam cordatum that bung 7 incter blas, a patain He slimed all around himself on the ghmelf dom of 2 inches in diameter, and then let wis in to the plant, touching the uspending wire fime descent. After be had alighted, the rope of atill hang from glass to plant. This rape el fact will now, on a second notice, porvil on further corroboration from other observeri Crawshay.

THE BWEET LITTLE DEAR LITTLE, GHAMTOC of ireland.-Mr. Baylor Hartland from Ireland in December last, saying that on Sher newly broken groand in his garden a crop the rock had suddenly oprang oo. anmen is Amen harvented the seed for asle to Irishmen come rib $\mathrm{H}_{4}$ kindly ent me some seed, which hssure in 1 Th Trifoliam oiaus. In my littiowork,

Shamenck, procuring them from Ireland on St Patrick' Day, and that on arriving at matarity they had tarned out to be different pecies of Trifoliam or Medicago. My evidence wat apported abortly afterFards by Mr. Colgan in the Irish Naturalist, who records obtaining thirteen undoabted Sbamrocks
of my own raising and crossing. The seed was sown in the spring of last year, the eedlings were planted out in a border in the open as soon an large enough, where they remained ever since, and are now flower ing; the border received no pecial preparatior neither have the plant received any apecial atten-
a very moky and cold district. not at all 'avourable to the Caration. J. Eughes. (A remalkbly fine lot of blosoms, large, the selfs of various ahade of pink, rost-crimson, white, palest flebb, primureeyellow and the acarlet fake very fall, with netala baviag great sabatance and parity of tiats. We do not re-


from various sources, eight of which proved to be Trifoliam minas, five T. repens. I am afraid Irishmen must raconcile themselves to the belief that Stam rog, Little Trefoil, is a name common to all triphyllate plante found growing on March 17, and that the Irish Shamrock, like the Scotch Thistle, bae no independent exiatence. W. Tuckwell, Augutt 3.

BEEDLINQ CARNATION8.-By to-day's parcel pont I mend you a box of Seedling Carnation blcom
tion. They were all raised from eelf-coloured flowers and my object was to raise varieties with self coloured flowers. I do not care for flakes, \&c. Many of the flowers of the white varietien are very like each other, but the plantu are very difereat in growth. All the varieties are very free bloomers. atrong growern, and throw plenty of "grase." You will botice that the petals on arme of the flert are damaged, which is owing to the very rainy weather Fe have been having for some week pasta. Oarlis
member to have seen finer flowers from an outaide border. All of them are quite worth perpetaating. ED]

Ma. A. F. BARRON.-Seldom bai it been the lot of the Gardeners' Chronicle to create a deeper or more profound seneation amongat gardeners than was the case late week. To how many did the announcement renpecting Mr. Barron's retirement from the direction of Chiswick Gardens come as a surprife, at
well as pain. Is the Frait Committee therefore to be alto deprived of Mr. Barron's entimable services or may he continue to hold his post of secretary till the end of the year, and then become a member of the body of which he has so long been the secretary? To deprive that committee of advice and knowledge which no other man can give or possemsen, would indeed be a misfortune. I am sure that any suggestion to that effect wonld create amongot the members grave regret. It has been Mr. Bicron's fortane to have earned far and wide a most distinguished repatation, eapecially as a fruitist, but his knowledge of vegetables is also unique, and this snowledge has always been at everyone's service. Whotoever followa Mr. Barron at Chiswick will find he has to occupy a difficult position. I am no believer in the idea that the man for the place cannot be found, but the best of men mast naturally feel modest in entering upon the aperintendence of Chiswick, and the other the superintendence of Chiswick, and the other
accessory duties-indeed, only one endowed with more egotiom than wiadom would feel otherwise. Ot coarse, in time courage and confidence will come, especially if the anccestor has the needful knowledge and other qualifications. Still, let the successor be who he may, our regret at the loss of no able and so worthy a superintendent and secretary will be very great. How far the Royal Horticultural Society may beneft or otherwise remaina to be seen. $A . D$. We have other letters to the aame effect, but it is deemed better to defer publication till after the holiday mearon. Ed.].

WEED-KILLER.-I can fally confirm the statement in the note in last week's issae of Gardeners Chronicle, respecting the cantion there given of the poisonions nature of the weed-killer. Early in the paut itpring I ordered two drums of weed-killer from a well-known firm; the drums duly arrived at the atation, where a cart was sent for them; but ai the road where the mixture was to be used lay on the way home, the drums were dropped down, to be used the next day. There were severil heifers in the encloanre, and my attention wat called to thete benata licking round the drama, more eepecially on the top, where, with the jolting of the railmay and cart, together with the hot weather, a little escape from the bang was observed. 1 impediately had the top of the drums covered with dry mand. Alas! one heifer died. It in an excellent mixture uned for what it is prepared Sor. P. F., A.

## New Invention

## the fatent stampord hoe.

Whev hoeing the land amongst clomely-ranked sitchen-garden crope, bedding plants newly put out, or the occapants of the herbaceous perennial border, the value of a tool which will not readily injare the steme and flower-stalks of the planta will be conceded by everyone having acquaintance with this kind of operation. The old-fashioned Datch hoe, with its rectangular corners, was liable, even when uted by carefal men, to injare the planta, more eapecially when the blade was hidden from the view of the uarer by the leaves of the plants. With the hoe illuatrated in fig. 32, p. 163 , no auch injury can be done, the free cornere being done away with by the manner of fixing the blade to the bow. Moreover, this hoo can be used as a draw-hoe, by bringing the cutter at the back into play, which is done by the workman slightly lowering the handle and drawing to inotead of puahing it away from him. The blade being of oteel, is very darable, and keepi a good edgo for a loag time. The patentees and makera are Meurrs. Pick \& Fountain, garden-tool makera,

Belgium.

## M. Jacos makoy et cie

Turs firm is noted for the cultivation of many uinde of plants $;$ thua, in the Fern-hoose, I noted vome excollent little eppeciee and varietiee, such as Adiantum eapillue-veneris tenue, ppecially valuable in winter owing to ite bardineas; A. cuneatuam grande, a very pretty novelty, unefal for floral decorations; Pteris creticas Wimeetti, very oraamental

large uncut leaven; Adiantum Bellam, usefal in winter ; A. tessellatum, one of the finest of Adiantum ; A. Kerchovei, renembling A. Birkenheadi; A. rhodophyllum; A. tenuiseimum, difforing but little from formosum, and other varieties. A good plant newly pat into the market this year, and aseful for beds and bordert, is Raellia Makoyana; Begonia Dachess of York is also a satisfactory introduction.
Among the Pandanas in MM. Jacob Makoy's houses I noted P. javanicus fol, var., prettily variegated with white; P. Baptisti, very elegaat, foliage velvety with a double yellow line along the mid-rib; P. graminifolius, and P. coneedens. Mach to be recommended is Eucharis Lowi, which is alwaya valued for ite useful qualities. Among the Marantas was M. rosea picta and M. Lonier. Asparagas Sprengeri, much used in Germany for decorating purposes; Rhopsla corcovadense, also uved as an indoor plant; Aluphila Malzinei, an excellent Mexican Fern, atd Asplenium laxam, deserve attention from plant lovern. Vriesia aplendens major is an excellent plant, as is also Nidularium ratilans with ite pretty rose tint; and so is Rhodortachys andina. A number of Dracera lentiginosa were remarkable for the dark colour of the foliage. A new plant for out-door use which seems coming rapidly into favour is Pgrethrum parthenifoliam glancum; with its whitish or glancous foliage, it might be likened to a Gymnogramma growing out-of-doors. Ch. De B.

## A New Horticultural Establishement.

A new horticultaral ettablishment has gradually been eatablished in East Brasels, and is now quite completed, and already contains some thouasind plants of Cattleya and of Cypripedium. It is MM. Linden who have atarted this enterprise, and we think that when it is open to them, plant-lovers will tind much to interest therein. In this, a brief preliminary notice, I will only aay that, bailt on the plan of l'Hurticultare Internationale, thit place is of larger extent, in admirably arranged, and fulfics all requirements for the cultivation of Orchids. MM. Linden will caltivate choicer species of Orchids, and are preparing to raise nome new varieties, For this parpose they are collecting considerable quantitien of Cattleya, Cypripedium, \&ce, that they may make careful selection. Erected in an open aituation, where there is no lack of fresh air, this establishment atarts with every chance of aucceas, and is sure to take a high place among Belgian nurseries. $C h$. de $B$.

## SEEDLING ORCHIDS.

Bersa much interested in the hybridiastion of Orchids, it has always been a wonder to me why so few seedlinge ever came from the millions of needs mown. Years ago I sowed a pod of Cattlega Dowiana $\times$ C. Warscewiczii, and a glorions crop of seedlinga in due time appeured on the basket containing the mother-plant, for it was the nurface of the basket that I considered the best place for weed at well at parent. They dinappeared in a mont extraordinary way. Healthy little embryos went in a day or two, and gradually all went. No one could imagine how they went no fatt, and left so little trace behind. At laet it dawned on me that the barket in which the plante are dipped is the ocean-grave of the zeedling embryo They have no root to hang on by, the plant when dipped makes waver ap the comport, and the backlash carries the drowned seedling away, never again to be neen. The dipping rendered a divastrous death to the fatare hopes of the hybridist; it neede great care not to dip plante too deep that have seedling on them. Seeds themeelven float away by the million, and are no doubt put down as bad. To avoid all this lons, sow seed on prepared poter or pans, and do not let them ever get too dry, or the living need will shrivel. I have to-day exsmined aboat sizty nowinge, and I find invariably that the seed is germinating far better, when the peat on which it is contains a large proportion of earthy matter. Where it is very fibrous indeed, it does not hold enough water for the keeping of the seed plump, and it soon abrivel.

Care must be taken not to have peat too earthy, ce moss too long, or the need will get covered by it This is fatal, especially to Odontoglonum med, which seems to like a hard bare spot to germinath upon. Water very carefally, so as not to flood the seed up the pot, and treat it as a delicate plant, with all the care and attention possible
Some pode contain but very little good reed. I one to-day, L. anceps $\times$ L. Crawshayana, that had but a few fertile seeds to thousands of chaff-cchen, U'ader a atrong lens it is very easy to nee the good and bad weed: one contains veritable moistare andin tranuparent, the other is a silvery-looking akin. If a few more growers would carefally prosecute hybridisation we should soon have good result, even in O lontoglossum, hitherto the crux of the hybridit, and where lies the greatest field for fatare realich To raise hybrid when Nature cannot do it will beth unite Colombia and Mexico, a triumph that is worth trying for. De B. Crawshay.

## SOCIETIES.

## COTTAGERS, ETC., HORTICULTURAL, ST. OSYTH'S.

Joly 25. - I have already noted nom 3 of the fined Roses in the two fine lots of forty-eight bloomi staged by the great growers, Mearra. Benjamin and Frank Cant. Among these were many bloom worthy of those great growers and of the diatrict Bat though liberal prizes were offered in the smb teur classes, the diaplay from these was not astirfactory. The Priory Garden and its products, $n$ conspicuous alike in the show tents and in the garden, prove that most things, inclading Row may be well grown in this district, and it is hoped that the fine object-lesson by the trade will reant in a vigorous effort next year to pull the Rosen of amateur up to something approaching high trade atandarde.
In other sections the St. Osyth show was well arranged, richly furnished with creditable productions. The first section was devoted to cottagers, who had forty-seven classes demion to them. In this section, too it was pleasing to find the Royal Horticultural Society of London offering through $y$ W. Watson the Bronze Banksian Medal of the R. H. 3 to the cottager who wins the largest amount of money in prise an the show day. Section 3 was devoted to childrea, who shome in four clasees. Bection 3 (arnateurs) contained twentrotmo classes devoted to truit, vegetables, and fiowers. section contained classes for a collection of fruits, and a collectiond cut flowers, open to all comers. Section 5 was derobed th home ind ustrics.
Then there were many special prizes offered by the thitic and others. Altogether the schedule of the Society is exw lent and comprehensive, exactly suited to a village coammnity, and other societies could obtain many nints from same were it before them. There seems abuadant room in and around St. Osyth for the improved calture of flowers and window plants. Stocks seem almost the only flowers the are well done outside the Priory Gardens in which goi culture, plenty and beauty every where prevails. D. T.

## THE MIDLAND CARNATION AND PICOTEE. <br> July 31 and August 1.- 1 aplendid Estibition

 Wha held in the Botanical Gardens, Birmingham, the above dates. All the available apace was oceripied bs exhibit of high merit, and if the Sociefy continues to grow an it has done during the pust teme yearn, a larger place of exhibition will becone necensary. Me. G. W. Latham's resources foud taxed toEleven stands of twelve Carnations competod, same virf fine blooms being staged, Mr. R. Sydewham, Birmiigg taking the lat prize with excellent bloons of C.B. Nu Hedderly, P.F. Gordou Lewis, C.B. Master Fred, B. F. . His Rowan, S.F. Guard jman, P.P.B. Sarah Payne, P.E. C. Ward wood, S.B. C. H. Herbert, P.P.B. Fred Philipe, S.B. E. P.P.B. Seedling, and R.F. Rcb Roy; 2nd, Mr. TOMC Loav, with some very good flowers.
There were ten sbands of six Carnations, Mr. C. F. TIIN STAE, Wolverhampton, taking the 1st prize with S.B. B. Imbub grave, P.P.B. Sarah Payne, and W. Skirving, S.Y. G. S.F. Miss C. Grahame, and R.F. Oristagalli ; 2nd, Mr. C. Hebden Bridge.
The best twelve Picotees came from Mr. T. LoRD, flothtite Todmorden, who had refined blooms of H. Red E. Bitle Puil H. Ro. E. Mry. Rogers, H.P.E. Zerlina, H. Bo. E. E. Blam H.P.E. Mr. A. Chancellor, L.P.E. Esther, L. and L. Bo. Heard, H.PE. Muriel, H. Ro. E. Mrs. Sharp, Thome Campanine, L. Ro, R. Mrs. Gead Mr,

With six Picotees, Mr. A. W. Jovrs, Birmingham, took the St prize with the best stand out of nine, having H. Rod E Bruatte, H. Ro, E. Mr. Bu'goss, H.P.E. Amy Robsart L.P E. Euizabe

Yellow grounjs were a great feature, and the blooms very fine, Mr. A. W. Jones taking the lat prize with twelve superb loome, baving Bomulu, Stadtrath Bail. Annie Douglas, Cartinal Wolsey, Almira, Mrs. R. Sydenham, Mrs. Whitbourn Mrs. Douglas, The Dey, Ladas, Mrs. Dranfield, and Janira 2ad, Mr. R. 8 fidenism.
There were ten collections of six blooms, Mr. A. R. Brown being lst with fine examples of Mrs. R. Sydenham, Mrs Donglas, Ladas, Harlequin, Mrs, Gooden, and Mrs. Henwood 2nd, Mr. E. Hill, Bulwell, Florrie Henwood, President Carnot, and Janira being very fine.
Selfo were very bright and effective, Mr. R. Sydenilam tsking the let prize with the best of eight stands, having Miss andrey Campbell, Mephisto, Rudoxia, Corunna, Ruby, TheoAndre, The Pasha, Fire King, Uncle Tom, Annie Lakia, Rob Roy, and Abigal; 2nd, Mr. T. Lorn, who had repy fine Mrs. Roy, and Abigal; 2nd, Mr. T. Lorn, who had
Gaskoin, Bluehing Bride, and Gentle Jackie.
Gaskoin, Bluehing Bride, and Gentle Jackie.
There were ten stands of Self, Mr. A. R. Brown taking the ist prize with Duc d'Orleans, Waterwitch, Uncle Tom, Miss A. Campbell, Mrs. Fred, and Hajee' Scarlet; 2nd, Mr c. F. Thlerstan

There was a maiden class for six Carnations and Picotees, M. W. F. GoodreLlow being 1ath and Mrs. Herbert Emitre 2nd.
These were also classes for blooms dressed as little as possible, though how to exactly hit upon the amount allowed is not tatel. The blooms, which represented all the types, were set p with their own foliage, each in a specimen glass. Some fine blooms were staged, and they certainly had a more atural appearance than the blooms in the previous classes ome of which were over-dressed. Four clases were devoted to these, and ther filled a good space of tabling.
Of single blooms there was an immense array. The leading 8 B.'s were R. Hoularave, Arthur Modhurst, and Master Stanley: C.B.'g, Edward Schofield, Bifleman, and J. 8. Hedderly ; P. and P.B.'s, Fred. Phillipe and Wm. Skirving S.F.'s, Sportoman and Wm. Mellor: P.F.'s George Melville Magpie, and Martin R,wsn; R.F.'s, Mrs. Rowan and Crist: ralli. Of Picotees: H. red E., Brunette and John Smith L. red E, Mra, Gurton and Thomas William: H.P.E. Muriel and Mrs. Openshaw L.P.E. Summerhill, Pride of Leyton and Rlizabeth: H.Ro.E, Mrs. Rogers, Campanine and Edith D'Omhra'n; H.9.E, Mp. 8iarpe; Lt R). or Scar E. Favourite and Nellie. The best white selfs, Mrs. Lee and Mrs Fred. The best yellon. Germaia an 1 Mias A. Campbell. The est pink or rose seedling Ruby and Rob Roy. The bett dark Moncesu. The best sellow groands, Mrs. R. Sydeaham and Mre, Goolea. The beet tancies, Romulas, Cardinal Wolser, and Duche of Purtland.
Border Caraations in buaches, thown in four clasees, wore very iffective, Messrs. Thomson \& Co, and Mr. H. W. W FGU゙ELIN, Teignmouth, taking the leading prizes.
Carnations in puts were represented by admirably grown and bloomed plants from Mesars. B. SyDENHaM and THomson \& Co. The bett six plants of German origin competiog for a special prize givea by Mr. Ernest Benary of Exfurt, came from Mr. R. SyDenilsm, and well represented the celebrated Erfurt strain.
Table Decorations in Carnations made a very fine feature. For a dining table 6 teet by 3 feet, good prizes were offared. Capt. Thewles, Keailworth, was lat, and Mr. W. F. Gunn. 2nd. Shower bouquets, Sprays, and Buttonholes were well shown.
Premier Flowers.-The promier bizarre Carnation was C.B. J. S. Hedderley, from Mr. Br, 8ybenham; premier flike, P.F. Geo. Melville, from Mr. A. R, Browr. The preraier H. edger Picotee, P.E. Mariel; light-elged rei E, Mrs. Gorton, both from Mr. A. W. Jones ; Y.G. Mrs. R. Sydenham, rom Mr A Hew Well Germania from Mr $\mathbf{A}$ Jones ; fancy, Romulus, from Mr. R. SYDENHAM.
Miscellaneous Exhibits were numerous and very fine. Mr. H. J. Jones, Ryecroft Nursery. Lewisham, had a central stand of Begoniss, admimbly arranged. Nezt in order of merit came Mr. W. Brreengead, Sale, with an extensive collection of Rerns; and Messrs. Kelway \& Son, Langport, with Gladioli and hardy flowers. Collections of hardy flowers came also from Mr. J. H. W HITE. Worcester: Messrs. Clibray \& Son, Altrincham; Mr. W. F. Guny, Olton, and Mr. A TELL Teamington Mr, H. FCKFORD, Wem, had a collection of Sur Pers. THowsoy \& Co bunches ollection of 8 weet Peas; Messrs. Themson $*$ Co., bunches Ilford, new Carnations; Mrs. W. SIDENHAM. Tamworth, a Ilford, new Carnations; Mrs. W. SYDEviaM, Tamworth, a ts ble of floral decorations composed of Violas, with standi
of fancy Pansies; and Mewre. EDWARDs \& Sos, Nnttall, Ed fancy Pansies; and Menara. En

## SOUTHAMPTON.

Aceust 3 and 5. -The show held on the above dates wae quita one of the best held by the Soathampton Royal Horticultural Society. Nut only were the aptcimen plants of extra quality, and the groaps arranged for ffect oplendid bat the cut lowers, frait and vegetables were all © qual to or beyond the average merit. The arrangementr, sa nasal here, were of perfect order, and great credit it due to Mr. Fuicge, the Hod Secretary.
Flasts.-For the beat ten eprcimen plants, Mr. CrPEER Chelter ham, whe diatinctly is: his collection wes good
throuphent, and it was well st'Red. M. J. Wilkirs, gre to
Lady Theodera Guest, Inwood Hou:e, Hentridge, Blandford, was a creditable erid.
Mr. Cyrter was again ist for six specimens with a collection similar in point of quality to the larger one ; Mr. Willus, Florist, Winchester Road, Shirley, Southampton, was a close ad, his plants showing moub cultural skilh. Prizes were offered to residents only in Hampahire for six pecimen plante, and Mr. N. Bandford. ge. to Mrs. Haselfoor,
Moor Hill, Bitterne, won lst boncurs with a very butisfactory colloction.
Still another clace was provided, for gardeners only. This clase was for six specimens, and Mr. T. Hall, $g$. to the Preaident, Sir S. Mortigue, Bart., M.P., South Stoaeham House, Southampton, worthily won let prize.
Ferns, in aix exotic varioties, were best shown by Mr. Peel, gr. to Mie TODD, Sidthorpe Lodge, Shirley, Southampton. Fachaias, Begonias, Pelargoniame, and Coleus made a bright display, the principal prize-winners being Mesirs. J. Wricox Blandford), Mitchell, gr. to J. WiLLIS FLEMiv(i, Erq. (Chilworth Manor), and Mr. J. HAL
Groups.-Miscellaneous plants arrangel for ffect in a space of 182 equare feet made a good dixplay, wveral excellent
groups baing set up. Mr. WILK somewhat easily won the premier award with a light arrangement of suitable plants about which there was not a semblance of crowding. Mr E. Cart, gr. to U. A. GILLETT, Eeq.. Fair Oaz Lodge, won lst prize, with a creditable collection of plante evenly disposed.


Fig. 32.- THE PATENT STAMFORD HOR
(sEE P. 162.)

Cut fowers. - These formed a prominent section of the show. Roaes were $\operatorname{sta}$ ged very creditably. Mears. Kermiss, WinLIaMs \& CO., Salisbury, won for both twenty-four and twelve blooms, with even, fsesh, and highly-coloured specimens Mr. Will TATLOB, Hampton, Middlese, was a good 2ad.
In the class for twelve blooms, restricted to gardenere, Mr. J. Weat, Br. to J. Wrasas Es. R., Korthlards, Salisbury, won lst place.

Stove and greenhonse flowers in a dozen trusees were beat shown by Mr. Herbart, gr. to Mrs. Marsinall, Crawley Court.

Herbaceous flowers were excellent.
For tw. ice distinct varieties, Mr. B. IADHAMs, fiorist, Shirley, easily secured the leading award with massive banches of choice kinds. Messrs. Kernes, William \& Co won for both Show and Pompon Dahlias ; and Mr. LadHams way similarly succeseful with Carnations and Picotees.
Table decorations, epergnes, and bouquets, were well repre sented. For the former, Mise Kate Golding won with creditably-arranged table; Mise HobBy, Padnell Road, creditably-arranged table; Mise HobBy, Padnell hoad Mise $\mathrm{B} \cap \mathrm{BBY}$; and the heat-arranged basket of flowers came Mise BOBBY; and the hest-arranged basket of fio
from Mise G. HARPER, Blighmount, Southampton.

Fruit and Vegetables were thoroughly well represented. For 2 collection of six varieties there were seven entries. Mr. H W. Wardi, gr. to the Earl of Radxor, Longford Castle, Salisbury, was an easy lot for a good all-round collection; Mr. Inglefeld, gr. to Sir J. Keter, Tedworth, Maribarough, 2ad. For three buaches of Black Hamburgh Grapes, Mr. J. Sanders
 tinctly ahead of all others: Mr. W. Mitcestur ind.

For three bunches of any other black ruriety, Mr. J. Halc won with fine examples of Madreafeld Court; Mr. gandebs 2nd, with sume variety. Mr. Mitchell had the Sambebs 2nd, With sume Variety. Mr. Mitcerel had the best Muscat or alozandra, Mr, WArD occupying ater, in a position with three tup
Mr. Pope, gr. to Earl of Cartapvox, Highclere Castle Newburs, woe for two buachee of any buck Grapa. The
ningle bunch class was well contested, Mr. Miverafll wiening for black, and Mr. Warn for white. Hardy fruit wa well staged by Mr. Wisir; Melons by Mr. WakD, aud Mr. E. L. Brows. Porlland House, Ealimbury: Peaches by Mr. ©. Hall. gr. to Lady Lovisa Asarvaion, Melchet Court, Hall, gr. to Lady Lovisa Ashruring, Kelchet Court,
Romsey; and Nectarines by Ms. Ingiefield.

For nine distinct varieties of reqetables, Mr. T. WILkims In premier award, closely followed by Mr. Pupte.
In the classes set apart for Mesars. Britun's and wism": prizes, Mr. Pope won both with rool produce, Mr. Whlikirs following. Other classes in this section were well flled.
Misc.llancous,-Mr. B. Lamsams had a remartably fine group of herbscous cut Howers. Messtn. E. Hillifa \& Bon, Winchester, had shrabs in pots, slao Apples, Pearn, and Cherries. as will aba good collection of frut an bunkets.
Mr. W. H. Rocitise, Red Lodge Nursery, Southampton, hed handsome group of ehrube in pote.
Mr. Dovglas, Bookham, Surrey, ahoice collectlon of hi ew Carnations.
Mr. J. Milen, hr. to F. Perxike, Feq., Purtsmood, Bonthampn, tro dozen dishes of hardy fruit

## 8T. NEOT'S HORTICULTORAL

AUGOST 5.-The thirty.firt exbibition of this Sciety was held on the above date, and while horticultare is pre-eminently to the fore, the schedule of prizes includen other subject interesting to country people, ach at honey, farm and market garden produce, poultry, \&c.
Plants.-In common with other societies there are fewer plants staged than formerly, but a lcial grower, Mr. G. Redman, gr. to J. H. GoodgamFs, Esq. Kynesbury, growe some ery good specimens, his six plant. in flower being attractive pecimens of Statice profusa, Bougainvillea glabra, Stephanotis floribunda, Anthurium Scherzerianum, Clerodendron fallax, and Hydrangea hortensis. Mr. Redman had the only group arranged for effect-a very good one.
Some rery good Balsams, much better than are usually seen, were ataged by Mesars. Benman and J. Jounson, St. Iven Tuberous Begonias were remarkably good, Mr. T. Lockie, gr, to A. J. Thormhill, Fiq.. Diddiogton Hall, taking the lst prize, and there were two equal 2nd prizes awarded. The best specimen flowering plant was 8tntice profusa, admirably bloomed, from Mr. T. Lockie.
In the way of foliaged pianta Mr. Redmax had the beat four ctove and greenhouse Ferns, staging fine specimens of Adiantums Williamsii and Collisii, a capital Platyceri um alcicorne, and Polypodium effusum. Coleus were represented by nicelygicwn bushes from Messrs. Last and Rrumas. The beat ornamental foliaged plant was a fine prece of rucca aloffolia, from Mr. Bedman ; the best specimen Fern, a grand piece of Nephrolepis exaltata, from Mr. Lockie. Many plants of e. creditable character were shown by amateurs.
Cut flowers.-Roses, usually a very good feature at this exhibition, were few, mainly owing to a violent hailotorm on Eunday evening. The bett twelve blooms came from Mr. J. Stone, Kr. to Mr. R. A. Cochrane, 8t. Neot'o. Mr. Recpcax had a fine stand of twenty-four busches of stove and greenboase cat flowars; and in the clase for twenty-four bunches of cut hardy herbaceous and bulbous flowers the Rev. W. Crouck, Gamlingay, staged one of the bast collections we have soan for some time past, comprising wo or three very fine and distinct Phioxes, Helianthus solei d'Or, Lilium tigrinum, Eryngium amethystinum, 8 tatio latifolia, a prend bunck of the white Everlating Pea. Alatroe meris urantiacs. Physostegia virginios, \&c, Very cood年hlise for the season were staged: also Stocke, Zinnias, Maricolds, \& The bent twive bunches of hard berbeceous flowers came from Mr. W. Last.
Fiucit. - The best collection of oight dinhes of fruit came from Mr. J. Mreas, The Gardeas, Hinchingbrook Eouse-Peaches Cherries. Figs, Melons, Apricota, kc., all good; Captain Duncombe being 2nd. Good Black Hamburgh Grafee came from Mesars. Moore, st. Neotis. Dessert and culinary Apples, desert and kitchen Plums, Cherries, Currants, \&c., were all good.
Vegetables. -The beat eight dishes came from Mr. T. Lockic ; Mr. Mrers being 2nd, both excelleat for the sesson. Mr. T. Clark. Huntingdon, had sir goor dishes of Potatos; Mr. Myers' six di-hes were only just inferior. Mr. Lockif, had a brace of perfect Royal Windsor Cucumbers. Vegetables geaerally were good throughout. The hard-working Secretary, Mr.W. Ratchelou's, is unwearied in his exertions on behalf of the Society.

NORTEAXPTON HORTICULTURAL. A veust 5 and 6. - The annual exhibition and lase was held on the above dates. That it is popalar exhibition there can be no doubt, and this was clearly seen in the keen competition in the cottapers clases, in which the productions were of the higheat degree of excellence. The large plant clases contained many excellent exhibits, the groups being particularly fine; cat Goweri were aleogood; but fruit, on the whole, was a little below the aversge. The arrangements were ably and efficiently managed by en enthaisatic commitsee and a bard working necretary.
Plants and Groups.-The largest plant class is that for twelve plants in an equal proportion of fluwering and toliage. Mr.J.CTPEEE, Queen's Nusperies, Cheltepham, alowed very
strongly, and won a creditable viotory. His bett examples were Enies obbata puppurea, a grand specimen nearly 5 feet acrose, profusely flowered and well coloured; another of E . Thomponi was evon larger but a littly thin, still a fine plant. Thomp Pilgeimi was well fowered, and was a fine plant; B Jugainrillea glabra and Stephanotis floribunda were alike good; rillea glabra and stephanotis flll coloured and quite fresh. Whits statice protastons were staged in C. Queen V'ictoria Two magnificent Crotons were staged in superbly coloured; and C. Sunset, both being 8 feet across and superbly coloured; whilst in the background was an immense plant of cer circinalis, finely developed, this being flanked on either side by two capital Kentia3. Mir. Finch, gr.
Roy, Corentry, came in a fairly good 2nd. and corering a space of 240 square feet, Mr. CypHee was well and corering a space of ane being most effeotive, and in good lst, the entire arrangement being gracaful specimen of taste. Thix rupicola, wit' long arching leaves. This plant was Phised sufficiently to introduce a mound or undergrowth of Orshidy and other choice flowering and foliage plants, whilat towards each corner, other and smaller morands were grouped with either an elogant Bamboo or a graceful Cocos as a cen to each, these again being surrounded with Orchids, \&c.
Between thiese and nearer the centre, were some welllowered Eumea elegans. No attempt was made to cover the ontire space, the fresh green grass appearing hert and there with an occasional well-flowered Orchid or a richly-coloured foliage plant. Mr. VAUSE, of Leamaington, was 2nd, with a good aroup in which the besteffect was concentrated in the costral part, the outer parts being somewhat weak.
In the smaller group class there was only one exhibit, bat in was deemed one that was worthy of the 1st prize.
Ror cirstove and greenhouse plants, open to the county only, the competition was good, but the exhibits on the whole were not more than satiofactory in quality. Mr. Copson, gr. to Mrs. PuIPPS, Collingtree Grange, was lat, his best exaccples being Achimenes longiflora major and Allamanda Readersoni ; Mr. J. C. Innt, gr. to W. H. Foster, Esq., Spratton Grange, 2 nd . some well-grown Ferns of moderate size were staged, the best eaming trom Mr. J. B. Palmer, Cliftonville: and the next best from Mr. Copsos. Zonal Pelargoniums were shown well, the plants of medium but useful size. Coleus and Fuchsiss were very good, and the table plants also.
Cit P.ewrenz-A splendid box of stove and greenhouse flowers was exhibited by Mr. VaOSE, of Leanaington, comprising sereral good bunches of Ericas, Ixoras, \&c.; the best tabledecorations coming also from the wame exhibitor.
Wortwenty-four single trusess of Roses in variety, Messrs: Thow Phakens ef Sons, Kingsthorpe Nurseriee, Northampton, were 1st, the finest bloums in a very freeh and bright box
 of Billaburgh. Meesre. J.
The Rer. Dri Krwg, Gwyton Rectory, waif list for twelve varieties of Tea-scented Roses, with- ervellent bloums - Marie Van. Houtte and Innocente Pirola being the best; Mears, Thos. Pemines \& Soif followed, Rev. Dr. Kire was again ist for 'tiwelve varieties of any sections in the amatears' class, fhowith an erea box of freab flowers.
For twitve bunches of hardy llowers, Mr. Cole, gr. to Earl Spacen, Althorpe, was capital list, with a well set-up box, the best being Tueca gloriosa and Lilium chalcedonicum; Mr Krichiccer, Courteen Hall, showed wall for the ind prize.
Mrs Xutohtley was lat for twelve bunches of stove or grewalowse flowers, Eucharis Mastersi and Begonis odorata bein : noticenble.
Therbist bouquet came from Missrs. Yarde \& Co.y Northampton, and Messrs. T. Fenalins \&os, the competition being very keen.

Bome capital Cockscombe were shown, and the best were from Mr. J. T. Fossey.
Frutt. -The best collection of vight hinds was staged by Mr. Qilman, gr. to the Eart ot Simbswiver, Iogestre, the exhibit b:ing of first-clas quality, Biakk Haubargh Grapes, Lord Napler Xectarines, Hale's Early Rumehes, and a good Queen Pine were his bent dishes; Mris. Coze, whotollowed, had gond 'Macat of Alexandria Grapee, the etrare hind of Nectarine, and Barrington Peaches.
In atlass for Black Grapes, Mri. C. Invs won the 1st prise with Black Hamburgh Grapes; the bineher were well finithed, and the berries large; Mr. Cupe followed with well. coloured Madretileld Court, berries rather emall.
For White Grapas, Mr. Jorlini, wr. to Viscouat Clifdes. Hol zenby House, was 1st with Muscats, fine in bunch and berry: Mr. Copsor being again 2nid.
Mr. 3. Cole was lst for a dish of Nectarises, showing very fine fruity of Pine apple; Mr. Copsos again followiug. For Pea hos Mr. Miller, \&r. to Sir E. Loyer, Whitleburf Lodge. was 1st. Other kinds of fruit were not shown in great numbers.
Fegttailes.-Mr. S. Cous had the best collection of twelve varieties, showing a remarkable selection; his best dishes were those of Autocrat Pea, Ailsa Craig Oaion, Praguell's Enhbition Beet; and Perfection Tomatos, both Celery and Carrots being alio excellent. Mr, Copsor was a capital 2nd. Mr, s. COLE wea again for nine kinds, ie which the best of these fouad in the larger class again predaminated; Mr. Kxigriviex in this instance being ?nd.
Mucellaneous Exhibit, were stag? by Mesman. Tens. Perrkins \& Sovi, who had tastefully made wreaths and an anchor, the ©nest new kinds of Sweet Peas (excellent), als) cut hardy flowers, 89 well as a group of Yucsa gloriose in flower, with Acers, Bc. Minrs. Jous Permins a Sox had highly coloured trie los Pelargoniumas, a good selection of eut Roses, two backets of the benatiful rariegated Saxifraga sarmentoes, two some grod, lants of Liliua wuratum:

## THE GARDENING IN HYDE PARK.

In come rempects one notices improvements-or, at least, pleasing changen-in the abject used in the beds in this park. It is not always the same, and it is the change made in thia way that alone make toler able the tastelens arrangement of beds which ekirt Park Lane. How delightfal all this might be revidered if laid out in some leas artificial manter and dwarf evergreen shrubs and deciduous flowering one were ased amongut the beds. What a wealth of material ready to hand is lying itte-in nureeries everywhere, which could be well employed in giving interest to the gardening here! There in too lavish a diaplay of colour on the amall area of turf-all gems, and no setting.

Commencing at Stanhope Gate and going north; we have a series of bede which were filled in early anmmer with Pannien, Sweet Williams; Dielytra, Aquilegia, Solomon's Seal, \&c. Some of them are utill in flower, being continuou-vince April and May. Aquilegia with a groundwork of Earl Beaconafield Pansy made a very pretty bed, as did a bed of Solomon's Seal, and a carpet of mixed Pansies. A bed of crimson Stock with a band of Pansies has been flowering for the past two months, and it till looking well.

Some of these early beds have been replaced by Fuchsias and large plant of Pelargoniame, which are now making a good show. These bed are backed up with groups of Palms, Bamboos, and Heliotropen, and have a picturesque look. At South Street gate, to the right and left of it, we come to nice groapt of Fachsias, the varietie uned being Mrs. Marshall, light, and Scarcity, dark.

In the next section of beds we have two planted with some large standard Fucheias, having a groundwork of Polox decusesta, which give promise of looking well at a later date. A bed planted with Roses has done well, but owing to the dry weather ite flowering period waa cut short, and it has been replaced with Erythrina Criata-galli, now coming into flower. Some good beds of Carnationa attract notice, showing their adaptability to thi form of garden embellishment. Amongat the varietie doing well were noted-Danger, s good crimson; Raby Caatle, pale pink; Queen of Beddern, a brighter pink; and the primrose-yellow Germsnia. Alice Ayres, a white with crimson edge, is doing well, bat in not no telling as the varieties just mentioned. Next comes a bed of Canterbury Bells, which have made a good show, and bid fair to make another very soon, being full of bad again; a pleasing effect is prodaced here by an undergrowth of Violas.
A bed of mixed Mimulus has been making a good show, but hat lately been removed and substituted with large plants of the oak-leaved Pelargoniam, having the Canary Creeper and Campanula pyramidalis mixed with them-a very effective asaciation.
Four beds of Ivy-leaved Pelargoniams having a carpet of Viola Blue Bell, with a band of white Lobelia, were remarkable for the pleaning colouring. Two bed of Hamea elegans were novel and attraetive. Humeat were once met with commonly, but gardenert have loat the art of growing the plante [owing to the diaease which affecte it. ED.], out they mut learn it again. Plumbago capentia with Solanum marginatum and Begonias as an undergrowth make a graceful bed planted together. Two mall bed filled with crimmon Stock and Migoonette, of courne always find admirern. Four round beds planted with taberous-rooted Begonias having crimson flowers, and atood about on a carpet of Moneywort, were attractive.

The next series of beds are planted in pairs, consisting of Fachaias, Bagonias, and Pelargoniums. The Fuchsia bed consist of the varietien Mre. Marshall, Empress of Germany, Madame Cornelissen, 3ud Scarcity, and some of them are carpeted with Ten-week Stockw, Begoniat, Violat, and other mallgrowing plants. Some bed of Pelargoniums, having miztaren of blue Cornflowers, Poppien, Golden Hrivet, and Scatice Sawarowii, \&c., ars very effective arrangement. On the left, going from

Mount Street Gate to Grosvenor Gate, there are some bed filled with French varieties of Canns which will make a good show later on. Two bed of Heliotrope, intermixed with Nicotiana affaia, look well. Here, again, we have a bed of Plumbago capensis and Fuchsia Scarcity, with Begonia semper. florent, and a carpet of Alternanthera, which loosed well.

From Gronvenor Gate to the Marble Arch noma of the bedis were filled in early apring with Dielyta and Pansies, and two bed of Doronicam planta. gineum, having mixed Tulip intersperned with the former, were excellent. Two bedr of Sazifraga ambroua (London Pride), with Spanish Iris inter mixed, made a good early thow; the Spanish Iria coming on later gave an additional floral diaplay. Trese beds have since been filled with Fachiu, Dracænas, Grevillean, Ivy-leaved Pelargoniums, \&cn and are again making a fine show. One bed of Petuniar mast not be passed over-it is fowering splendidly-the hot weather is doubtlens farourable to Pettinias flowering so well.

Passing across the park to the dell, we have the uanal imposing and tropical feature imparted by Tree Fernm, Dracrens, Musas, \&c., overhanging the pretty little atream of water at the east end of the Serpentine. A mixed border planted with thing too numerous to mention looks well at the premelt time. Coming on to the flower walk (Kensingtor Gardens), where flower have been continuou aince early spring, commencing with Snowdroph, Hyacinths, Tulips, Narcisaus, Chionodoza, Seillh, Phlox amœena, Wallflowers, Pæjnien, Lilien, Delphiniams, Viulas and Pansies, which latter are atill good, we have a walk prenenting daily frenh feature of beauty, interent, and attractivenem. $\Delta$ word of praise should certainly be given to Mr . W. Browne (the Superintendent) for hir admirable arrangemente this season. J. B.

## Scotland.

## AN EDINBURGH NURSERY.

To the lover of horticultare, who find himelf on holiday in the queenly capital of Scotland, not the least interesting of the many intereating features of Edinburgh is it profasion of magnificent publie gardens and extenaive private nurserien. Among the latter, Beechhill, owned by the well-known frm of John Downie, and aituated about a mile west of the city, on the Coratorphine Road, amply repays the trouble of a visit. The aituation of the Nurtery of itwelf has a pecaliar charm for the eye that can apprecista the beauties of a delightfal landecape in the envirote of a buny city. From the slopes of Beechbill yois might imagine yourself sarveying the ontlines of mome aqueatered acene, far from the turmoil of thousand basy streets, though the heights and apires of the Northern Athen are almost within a stone throw. In front atretches one of the most fertils plaing in Scotland, affording a particularly rice mosaic of cornfield and meadow, and backed by the green alopen of the diatant Pentlands. Oa the rigt lies the village of Corstorphine, with ite vanersb church-spire, and the wooded hill, whone sumaik "Rent and be thantfal," is one of the favoari haunte of the good folk of Ejiaburgh. To the let a glimpse is caught of Arthur's Seat, which you might miatake for the brow of some distant "Bis As I have said, you might be 100 miles removed fos the buay haunt of men, were it not that the 10 cloc gan booming from the Castle rock, acarcely halro th hour's walk away, reminds you that
near environs of "Edinboro' toun.
I bave not come here to reflect or poetise, how ever, and after mpending five minute admiring the prospect, I am conducted into the Begonis-houst there to marvel at the effect produced by the silife cooperation of Nature and man. The houre is between 80 and 90 feet long, and it mas conm some ides of the besuty of the interior when I wry that the long platform on either vide of a mifneat pasaage are covered with
blooms of exqaisite

The contents of the next honse into which I am conducted are less dazzling. It containa a fine collection of healthy Smilax and Hamea elegana. Ita neighbour, the Palm-atove, in filled with many thonands of graceful specimens, ranging in size from 3 inches ap to 12 feet; Gloxinias of the finest atrain, Eacharis, Adinatam caneatum, Arancaria excelan, Dracrens, Asparagus plamosus nanos, Caladiume, Cannas, and other saperior plants have each a house devoted to their culture, in order to supply the large demands of Downie's floral establishment in Princes Street.
The last honse inapected is reaplendent with a blase of double Begonian; nome of the blooms are truly magnifleent. I cannot refrain from mentioning one from a seedling of Downie's own nurtare. It bears the appropriate name of Mra. Downie, and for size, compactness, and the purity of its white coloar, would be difficalt to surpasi. Other apecimens deserving apecial mention are Madame Cecil Godfrey, Lamartine, and La Baronne de St. Didier, One is not aurprised to hear that thene blooms are at present the most popular of flowert with the fauhionables of Princes Street.
A atroll along the walke outride betrays at every atep rome intereating feature. A patch of healthy young Planes attract attention from the fact that they are the offspring of a venerable aire, which is one of the sights of the village of Corstorphine. This relic of a byegone age is the remnant of a ohady avenue that once led ap to the old castle. Both castle and avenue bave disappeared, and left this giant witnees of the old world of a far-off generation. The feature about it is the remarkable colour of the young leaves in early apring, their glittering yellow is so aingular as to atrike the eye of the most indifferent passer-by. The old folks tell a story of a phantom woman dressed in white, with a bloody aword in her hand, who affrights the belated traveller, a tale which recalla a love tragedy preserved by tradition.
Other bedethat tell of fouriehinggrowth and carefal management, and that cateb the oye in pasing, contain collections of Conifers, frait trees, ornamental shrabs, East Lothian Stocke, Antirrhinuma, Pentetemons, Delphiniums, and other herbaceous
flowers. It is flowers. It in anfficient to ayy that the whole is a model of what a plant-rearing garden thould be, and reflects credit on the general management of Mr.
William MacKinnon, Traveller. William MacKinnon. Traveller.

## Forestry.

## felling and planting park timber.

"Br aye atickin' in a trees" was the advice given by the laird of Dambiedyken to his son, and it is mid theme words of Sir Walter Scott led several estate proprietors to go in extensively for tree planting. However this may be, it is probable that the taste for planting has existed, and will exist, among all clases, independently of any ulterior motires than those ingrained in most membera of the human race, from the inmate of a garret with his or her Pelargoniam in a tes-pot, to the wealchy proprietor of a large eatste, with his wood and deer-park. With this taste for planting is amally aseociuted the desire to prenerve what hat already been planted by the owner or his predecestore, a sentiment which is constantly in evidence Wherever trees or shrabs are to be found. We sill know the angainly Arancaria of the auburban ville, Which the occupier thereof regards either as a type, of arboreal beanty, or as a vegetable phenomenon, according as his inclinations run in an artistic or acientific groove. Bat while such incongraities ar apparent to the most casual critic, cases may be constantily met with where the exiatence of a few trees blocks up or obatructis a pictaresque view, the poneibility of which has never been ounspected. Such canes are more common in undrlating than very flat or billy countries, but in all parte of the coantry the fanctions of trees in
the eomposition of the landreape eeldom receive a due amount of attention, although their planting is better attended to than their removal. Many of our most picturenque parke have, no doubt, been touched up by tome able landecape gardener at one time or another, and bear evidence of their skill to this day, for the artistic creation of such men as Repton, "Capability" Brown, Kent, \&c., ', are little more than fully developed even now. Bat while the art of the landscape-gardener bat not altered so far as ite principles go, nor has it advanced to any important degree during the last century, the ideas and productions of its followers are constantly in need of revicion and modification. This arises from the simple fact that trees grow in aize, while their surroundinge retain their original proportions. The seedling of an inch growa in the coarse of a century into a lofty tree, creating a new feature in a landncape which may or may not be the better for it. We often find a site chonen for a manaion on account of the extenaive view of the surrounding country which it commands, and where the immediate vicinity is bleak and bare nothing is more natural than the denire to remedy this defect by planting belta, clumpa and single trees in more or lens clone prozimity to the house. The effect of this work is at firt acarcely pereeptible, but later on, it is frequently found that some interesting feature of the landicape is shat out from the principal point of view. When this occurs before the trees have reached their full aize, the removal of the obstraction is a simple matter; but when, at frequently happent, many years elapse before the view becomes obstracted, a conflict often arises in the mind of the owner as to whether a well-shaped tree or clump of trees, or the view behind it or them, shall be sacrificed. To the landscape gardener or impartisl observer this question resolves itself into simply deciding whether the tree or the prospect behind in the greater feature in Vhew before him. "A Primrone by the river's brim, a yellow Primrose is to him, and it is nothing more;" but the owner nees things in a different light. Familiarity does not alwaye breed contempt, and the chiet attractions of a home lie in the faviliar objects by which it is sarrounded. Every tree, building, or hedgerow is necesaary to complete a picture which is always present to the native mind, and the removal of one of them is like parting with an old friend, or the anapping of a link which connecte the old with the new. To the stranger, things appear as they are, devoid of all asaociation, and every combination of lawn, trees, water, and eky, forms a picture, good or bad, as the case may be, and the landecape artiet walks through a park in much the wame way as a painter walke through a picture-gallery. These two independent points of view are naually brought into opposition when outaide opinion is conalted renpecting the improvement or alteration of any old and historic manaion or park which has been in the hands of toe owner's family for several generations. When a property changes hands, the new owner invariably sets about alterations and improvements, which the old proprietor would regard as atterly apoiling the place, but in most cases true tanto will content itself with as few radical changes an possible, and aroid any alterations which tend to destroy the general character of the apot. One of the mont ensential attribates of those who plant or fell for effect is the power of anticipating the reault of their work when fully completed. This is the more easy to do in the case of felling than in planting. as the fanction of the former is to remove exioting defecta, while that of the latter is rather to provide new features. The removal of trees may be desirable for stveral reacons, but apart from those canes in which they act as obatructions to the view, from a definite standpoint, the most monstrous instances are foond in the case of belte, margins of woods, and dense masess of trees which give the landscape a heary and somewhat monotonous appearance.
The belt is an element of most park scenery, and is uevally provided with the intention of hiding the bountary line, or disgaising the real limit of the park. This it often fails to do, owing to ith parrowness,
uniform width, or unbroken continuity. A narrow bolt is quite as effective in ita early lifo as a brond one, but as the trees grow ap, their lower branches die off or become thin in foliage, and wo find a parforated and imperfect acreen, the identity of which is only too appareat. By rarying the width, to that some places are dense and impenetrable to the eyo, and leaving a few gape in auitable places, it becomes almont impossible to detect the bonndary line at a reasonable distance, and relief is farnished to an otherwise long and unbroken surface of foliage. A common fault in a belt ie ita atraight or compatively atraight outline, often produced by following too closely the fence it is intended to hide. This can also be remedied by rarging the width, to that some part: project, and othert recede from the general line. The same treatment is necessary in the case of margins of woods, but where this has been neglected in planting, the aze muet be employed to break the outline where necessary. By catting sharply into the wood in one or two places, so that the outline becomes prominently but not too frequently broken, a variation in light and whade is obtained which greatly improven ita appearance.

A better effect in produced if the remaining portions are thinned, so that individanl trees atand out here and there from the main masn, and thas obscare the exact boundary line between wood and grass. This, of course, muat be done while the trees are atill young, otherwise the unfurnisbed condition of the lower part of the trunks gives them an unsightly appearance when isolated, and the sudden exposare may also sffect their health. In breaking a dense mase of trees anch as a large clump, the anme principles apply an in the former case. Instead of leaving single trees, however, it is better to lenve them in twos or threes if the lower branches have been killed off by crowding, which is better for the health of the trees, and also does away with a good deal of the unnightly appearance which inolated trees with bare stems present. As many of the rearginal trees should be retained as possible, as these will be well furniohed, and hide thone atanding behind to a great extent.
The manner in which planting should be carried out in a park depend greatly upon the conformation of the groand. Where the latter is of an undalating character, the differences of level may be apparently increased by planting the topa of alopes and hillocke, and leaving the low ground comparstively bare. Oa flat groand, recoarne mast be had to groupe and combinations in order to farnish variety, and thick planting uauslly gives a better effect than wide atretches of bare turf with nothing to attract the attention or form a zufficient background to the view. On anch groand fow finer effecte are obtained than by following the type of the natural forest, with its alternating glade, thicket, and characteristic group, and in which the acene is conatantly changing. Most of our finest parks are simply the remains of primeval forents, which at firat were reserved an chases or aporting grounde, and later on enclowed and atocked with deer. This asyle of acesery, however, can only be artificially obtained in parke of large extent, or in which the head of deer or cattle is kept within due limits. Close grazing improves the pastarage, no doubt, but dentroys the smaller planta and bushen which constitate a characteristic feature of forest acenery. This lack of amall ehrubs, Forns, \&cc., gives a prim and neat appearance to a park which is not altogether diepleasing, but is apt to destroy the perfectily nataral aspect which many consider a park ought to poseses. The jadicious use of the ha-ha or sank fence, and the planting of B ackthorn, Holly, \&sc., waich are secure from the attacks of cattie, might do mach in bresking the even planes of award below and the broweing line above.
The we of the clump in park acenery has often resalte in producing a bad effect. This is nanally dae to its being planted with circalar outline; and when, as is ofsen the case, it is treated throaghout an a plantation, it is entirely out of keeping with the surrounding ground. In our opinion, where more than half-i-dozen trices are winted in
one place the clumpshould never possess an entirely convex outline. Creacenta, triangles, and oblongs, \&c., are all preferable to the circle, providing the sides are not too etraight and regular; and a V Y, or atar-ahape, are all well adapted for providing a broken, irregalar outline, with alternating projections and recenses. Many of these objectionable circular clumps were probably planted with the intention of gaining the mont ground with the least length of fencing, and after the removal of the latter, giving the clump its final shape. Bat as this would naturally be out of the question antil many years after planting, it is not sarprising to find this part of the work neglected in many inatances where the planter has not arrvived the completion of his tank, and his anccenors have not entered into the spirit of his ideas. At the same time, the diafigurement of a picturenque park by these formal clampe of young Fir or Larch seems hardly jaatifiable uader any circumatances. Where young trees mant be planted for after-effect, and to replace deathn, a more appropriate way of doing it might marely be found, and the principles of atrict economy (so seldom observed in bond-fide plantations) alightly departed from when occsaion requires. By giving the clamp ite proper aize and shape from the first, the branches of marginal trees are allowed to develop, and the effect at all stages of growth is greatly improved.
Generally speaking, planting individual trees in the park does not prove a ancces. A single tree may be either an overgrown bush or an arboreal giant, but it is only as the latter that it in much admired. On poor soila, or where at all exposed, a really good apecimen tree is rarely seen, and the majority of ivolated deciduona trees are short boled with " manhroom" heads. In zach casen, a crown of foliage formed from two or three stems is ueually more admired than the formal looking individual. Too many double-atemmed crownt munt, of courre, be avoided, and the existance of any well-shaped tree, however amall, is always welcome. Combinatione of different opecies, sach an Scots Pine and Oak, Beech, Elm, \&ce, often give a pleasing effect, and a fow Thorns, Hollies, \&c., help to break the browaing line on flat groand. The chief object aimed at, whether in felling or planting, should be the providing of juut that amount of variety which prevente monotony but does not deatroy character. Abrapt changes, or a series of similar repatitions are always andesirable, the one attracting attention to their artificial nature, and the other proving far more monotonous than a constant, but charneteristic type of acenery. A. C. Forbes.

## Vartorum.

The Advance of Plant Life, -Whan the remendous volcanic explosion of August, 1883, occurred in the Straita of Sanda, half of the island of Krukatoa wat blown awsy and every veatige of life was destroyed on the remaining half. The ground was buried ander hot ashes and buraing pamicetone, varying in depth from 3 feet to neariv 200 feet. No vegetable marm could possibly have survived the catastrophe. Yet when Dr. Treab explored Krakatoa only three years after the eraption, he found varions apecies of plants flourishing there. It was ahown that they could not have been carried there by human agency, becaune men had not risited the devartated illand. The character of the new plants was ruch as to prove that they could not have been derived from the former vegetation of Krakatoa, even If any living remains of that vegetation could have exieted in the burned aud buried soil. The neareat land on which any nlante grew wat the island of Siberie。 Samatra in 20 miles and Java 21 miles from Krakatos. Yet a dozen kinds of Ferns and severs apecies of lowering plante and grames were discovered by Dr. Treab floarishing on the shores and in the mountsinous interior. That some of these forms of vegotation had been carried there by the ocean was indicated by the fact that neede of littoral planta
were found acattered on the shore. As to the other planta, the hirtory of their appearance apon the island neems to have been as followa: First, a thin film of a simple form of vegetable life, derived from floating germa, in the atmorphere, covered the pumicestone, and, through chemical action, brought its ansface into a condition fitted for the nouriahment of Ferns and later of flowering plants. The seeds of thene were brought by the wind and birds, and, as soon as the soil was capable of supporting them, they took root, and, bathed in the equatorial anahine, began the work of clothing the barren island anew. Renewed attention has recently been called to the reappearance of vegetation on Krakatoa in connection with the general sabject of the origin of the plants that inhabitiolands. Nature show herself entirely capable of conveying the germe of plant-life for long distances by meann of the ocean and the atmorphere, aided by the birds. When man comes to her assintance the work goen on apace. Of eighty apecien of plants inhabiting the Laccadive Islands-which are aimply the tope of a group of submerged mountain peaks in the Arabian Sea, half of whose inhabitants have at timea been awept off by storm waven-it is believed that fifty-nix have been introduced by man, eleven by the sea, two by the winds, and two by birds. Among the apecies not introduced by man is one of the finest trees of the islands, the Coco-Palm. There is nothing more impreasive in modern science than the story of what has been learned of the gradual conquest of the earth by plants-for a real conquest it has been. Christian Age, July 10.

## The Weather.

The term "acoumulated temperaturs" indicatea the aggregate amount, as well as the duration, of degrees of temperature above or below $42^{\circ}$ Fahr. for the period named : and this combined result is expreased in Dey-degrees-a "Day-degrea" signifying $1^{\circ}$ continued for iwenty-four hours, or any other number


The districte indicated by number in the firat collumn are the following:-
1, Scotland, F.; 2, England, N.Eroducing Districts-
4, Midland Connties; 5, England, ineluding London,
Princzoal Grazing, Ge, Districts- A . Scotland W.
Kngiaed, N.W. 8, Kngland, S.W.; 9, Iralaud, N.
10. Iroland, S.: Whannel Inlands.

THEPAST WREK
Tin following summary record of the weather throughout the British Ielands for the week onding Auguet 3, is furniehed from the Meteorological Office :

The wather was mostly fair and dry durine the early part of the weel, the only exception being on July 28 , when hesvy rain fell ower the eastern and woxthern counties. After the middle of the period, however, unsetthed rainy condition spreal gradually over the United Kingdom from the weet ward, and on August 2 smart thunderstorme ocecrred in many parts of England.

The temperature was below the mean in all districte, th deficit amounting in most cases to between $2^{\circ}$ and $3^{\circ}$, but in 'England, E.' to $4^{\circ}$. Highest raadings, which occurad various times during the week, were below $70^{\circ}$ in moot of th western and northern districts, and very little above that point in any other parts of the kingdom. Lowest reading were also registered on varying dates, and were low time of year; in 'England, $\boldsymbol{E}_{3}$.' the thermometer fell to and in 'Scotland, N. and W. and England, S.W.' to $38^{\circ}$. In the 'Channel Islands,' however, it did not go below $53^{\circ}$

The rainfall exceeded the mean in 'England, E. and s. and the Chaunel Islands, as well as in Ireland, N.,' bat shom a deficiency in all other districts. In 'England, Nor, ad N.W.' the fall amounted to only half the normal.

The bright sunshine was considerably less than the mom over the United Kingdom generally, but was slightly in ex of the normal in 'Scotland, E. and England, N.W.' The m centage of the possible duration ranged from ' 89 in ' Fng m , N.W.,' and 28 in 'England, E. and the Channel Islands,' 15 in 'England, N.E.,' and 14 in 'Ireland.

## MARKET8

COVENT GARDEN, August 8.
Wo cannot accept any responsibility for the subjoind reports. They are farnished to us regularly over Chursday, by the kindness of several of the prineip alesmen, who revise the list, and who are reaponsibit for the quotations. It must be remembered that the quotations do not represent the prices on any particalk day, but only the general averages for the weel proediug the date of our report. The prices depend apou the quality of the samples, the supply in the market, and the demand; and they may fluctuate, not only from day th day, but often several times in one dav. ED. 1

|  | 3. |  | bid ad |
| :---: | :---: | :---: | :---: |
| . 12 blooms | $20-40$ | Mignonette, per 12 |  |
| s, English, per |  | bunches |  |
| 12 bunches | 30-6 0 | Orchids:- |  |
| French p. bn. | 06-10 | Cattleya, 12 blmes. | $0-10$ |
| Bonvardias, per bunch ... ... | 06-10 | Odontoglossum crispum. 12 blm. |  |
| Carnations, per 12 | 10-30 | Pelargoniums, scarlet, per 12 bunch | 3011 |
| Chrysanthemums, per 12 bunches. | 40-90 | - 12 sprays ... Pyrethrums, 12 bun. | 1 |
| Eucharis, per dozen | 16-26 | Roses, Tea, por doz. |  |
| Gardenias, per doz. | $30-40$ | coloured, p.dz. |  |
| Gladioli, p. 12 sprys | 06-1 | yellow (Maré |  |
| Lapageria, par 12 bloomas | 10-20 | ohals), per doz. - red, per dozen | I |
| Lilium Harrisii, per dozen buaches ... | $20-10$ | - mized, p. doz. bunches | 4611 |
| Lilium Iancifolium, per dozen bunches | $20-40$ | Stephanotio, dozem sprays | 11 |
| Maidenhair Farn, per 12 bunches ... | 40-60 | Sunflower (small), doz bunches |  |
| argueritem, per |  | Sweet Peas, 12 bur. |  |
| 12 bunch | 10-30 | beroses, 12 blms. |  | 12 bunches

## Onorid-bioon in variet

Plange tr Pots-Averige Wholmaze Prow

| x, per dot. | $40-120$ | Fious e |
| :---: | :---: | :---: |
| Aspidistra, per dox. | $120-300$ | Foliaxe |
| - specimen, each | $50-150$ | Fuchsies, |
| Calceolaria, per doz. | 10-6 | Heliotrope, per doz. |
| Chrysanthmums, p. doz pots | $60-120$ | Hydranceas, p. dow IVy Geraniums, doz |
| Cockscombe, p. dox. pots | $30-60$ | Lilium Harrisii, par dozen pots |
| Coleus, per dozen... | 20-40 | Lilium la |
| Cyperus, per dozan | 0-10 0 | Labelia, per doz ${ }^{\text {ore }}$ |
| Dracrena, each | $10-76$ $120-240$ | Marguentes, p. dow. <br> Mignonette, p. dow |
| - various, doz, | $120-240$ | Mignonetto, p. |
| vergreen shrub, in variety, per |  |  |
| dosen ... | $60-240$ | Pelargon |
| Forns, small, dox.... | 10-30 | Rhoda |
| various, doz. | $50-120$ |  |
|  |  |  |
| 3. d. s.d. ${ }^{\text {d }}$, Guernvey... |  |  |
| pples, per sieve .a. | $30-40$ | Grapes, Guerney |
| Currants, black, per |  | Melons, each ... ${ }^{\text {aio }}$ |
| half-sieve | $70-80$ | Pinespp |
| Figs, per dozen ... | $10-20$ | chac, each |
| Grapes, Int quality, |  | Peaches, and size |
| black, English. $1{ }^{\text {a }}$ | $\begin{array}{lll} 1 & 3 & 1 \\ 0 & 0 \end{array}$ | - 3nd aize |
| - 2nd quality. | $0910$ | 3rd mizo |
| seate | 1 |  |

Beans, Runners Cauliflowers, D. do Cucumbers, per doz. Marrows, veg., doz. Mushrooms, per Peas, blue, p, bush. 0-5 9

## Tomatos, Hose

 Grown - Grooth OrdinaryGuernsey Guernsey

No change to report. Beat samplesare scarce. J. D. Thomin

## SEEDS.

London: Aug 7.-Mesors. John Shaw a Sow aerchants, of Great Maze Pond, Borough, Loaw with Write that to-day's market was scantily attend Rug little busines passing. New Trifolium, bot Foreign, is offering on reasonable terms. A to houd winter Tares, of fair quality, are now coming to inq Hye is cheap and good. There is an improved
Mnstard and Rape aeed. Haricots gcarce. Pess Mustard and Rape seed. Haricots scarce. Peas Birdmeeds continue slow. Buckwheat offer just now attrect but little a

## FRUITS AND VEGETABLES.

Borovalis Aug. 6.-Quotations:-Peas, as. por bashel; Moraradish, 18. to 18. $3 d$. per bundle: Currants, 1s. $6 d$ o to 3. 6d. per half-sieve; Grooseberries, 18. $8 d$. to 2s. do.

Stactrond: August 6.-Quotations:-The supply to this market during the past week has been good, and, with p'enty of buyers, a brisk trade was done as under :-Oabbages, iss. to bs. per tally; Turoips, 28. to 28. 61. per dozen bunches: Carrota, household, 2s. to 3s. do. ; Mangels, 18s. to 22s. per Cantota, Onions, Oporto, 5s. to 5s. 8d. per case; Apples, English, ton; Onions, Oporto, 5s. 1 . Plums, 3 s. Id. to 38 . $9 d^{2}$. per half-
 sieve; Cherries, 2s. to 3s. do. ; Pears, 1s. 8d. to 2s. 1d. do. ; Cucumbers, 18. 6d. to 2s. 86. per dozen; Scarlet Ran
Spltalinenss: Aug. B. - Quotations: - Searlet Beane, 3s. ©d. to 4s. 6d. per bushel ; Peas, 28. 6d. to 3s. do. ; Turnips, 2s. to 28. 6d. per dozen bundles; Carrots, do ; Marrows, 4s. to 5s. por tally; Csbbages.2s. to 3s. do.; Apples, 3s. 6d. to 4s. par bushal: Seconde, do., 2s. to 2s. 8d. do.
FAhBINGDON: Aug. 8.-Quotations:-Cabbages. 1s. 3d. por dozen ; Carrots, 3s. Bd. per dozen bunches; Turnips, 48. do.; Mint, 4s. do.; Marrows, 2s. per dozen; Scarlet Beans, do. ; Mint, 48. do.; Marrows, 2s. per dozen; Scarlet Beans,
4t. to $48.0 d$, per bushel; Tomatos, 48. 6d. per box of 12 lb . 48. $2048.6 d$, per bushel; Tomatos, $48.6 d$. por box of 12 lb ;
Green Gages 4s. per pad; A Apples, 4s. per bushol; Raspberries
 per dozer.

## POTATOS.

BOBOVGH: Aug. 6.-Quotations ranged between 80s, and 20s. per ton.
SPitalfielids: Aug. 6.-Quotations:-Hebrons, 60s. to 70 s ; Begents, 55s. to 70 s .; Snowdrops. 70s. to 90s. ; Puritans, 70 s . to 85s. ; Reading Giants, 60s, to 70s. per ton.

Strattoid: August 6.-Quotations:-Magoums, light woil, 60 s . to 75 s . ; dark soil do., 50 s , to 35 s ; Hebrons, 70 s , to 80 s . per too.
Fırrivgdon: August 8.-Quotations: Puritans, 80s. to 90s. Monarchs, 80 s , to $9 \mathrm{vs}$. ; Red Hebrons, 80s. to 9 Js . "Imperatore, 70s. to 80 s .; Magaums, 60s. to 70 s . per ton.
London Averages: August 7.-Hebrons, 80s. to 90s.; Soowdrope, 80s. to 100s.: Rarly Regents, 65s. to 75s.: Early Rose, 60s. to 70s.; Puritans, 60s. to 70s.; Kidneys, 60s, to Obs. per ton.

## CORN

Averages. - Official statement of the average prices of Britimh Com, imperial measure ( qr .), for the week ending August 3, and for the corresponding period last your: -1895 : Whent, 24s. 2d.; Barley, 18s. 2d.; Oats, 13s, 9d. 1894:


## HAY.

Averages. - The following are the averages of the prices at the principal metropolitan markets during the past week:Claver, prime, 90s. to 110s.; do. inforior, 50s. to 80 s. ; hay, best, 60 s. to 95 s. ; do ${ }_{2}$ inferior, 36 s . to 60 s ; ; mixture, 70s. to 92s.6d.; and atraw, 20s. to 38s. per lond.

## Vegetables.

## NEW KIDNEY BEAN DWARF PARISIEN.

This is a dwarf French variety distributed by Menars. Vilmorin \& Co. of Paris last apring, and it is said by them that it han sprung ap among the Paris market gardeners, and although it has become known but recently, ite culture is spreading very rapidly in the vicinity of Paris. I have a few lines of it at my seed grounds at Bedfont, where it has done well and pleasen me greatly. It is of dwarf and compact growth, very early, and highly productive, the poda long, soon mataring, dark green in colour, atreaked with black linea, and baving tested it for table, I can pronounce it all that can be deaired. The fact that the beane are darkly atriped need not prejudice any one againt it; it is characteristic of come older varietien, and the colour entirely diesppears in the process of cooking. I think it mant prove a very excellent foreing variety, an it commences to bear no early. We are indebted to Mesart. Vilmorin \& Co. for averal good thinge in the way of vegetable: not lenat among them being the Dwarf Parisien French Bean, R. $D_{\text {。 }}$

ENQUIRY.
"He that guestroneth much shall harn mench."-BaCOT.
D. W. C. M." would be glad if some of our correapondent would inform him what would be the bett chinga to grow on land irrigated with eewage.


- Owing to the large increase in our oirculation, 108 ar reluctantly under the necessity of goind to press some hours lindly aid us by sending their communioations as early in the roek as possible. Communications should reach us not later than Wedneadany.
*onding plants or fruits to be named, or asking guestions demanding time and ressarch for their solution, or asing questions to obtaln as annwer to thair onquivies ind, must not mppeca speohmens should be good omes, caremully pocked and mumbered. and not more than siac should be sent at one time. Leaves only, or Torists vamities cannot, as a rils, be named.
Address of the Gardenirs' Royal Benevolent Institution: Inquirer. No. 50, Parliament Street, Whitehall, W.C.
Books: Asparagus. A truatworthy manual is one entitled Asparagus Culture, by Barnes and Robinnon. Price 18. $8 \mathrm{~d} .$, post-free, of D. W. Morgan, 1, Little Coliege St. Westminater, London, S.W.Propagation and Management of Fruit, Forest Trees, Confres, \&c.: W. H. B. The following would be of use:-Fruit Farming for Profit, by G. Bunyard, published by Frederick Bunyard, 29, Week Street, Maidstone; Cultivated Plants, hy E. W. Burbidge, to be bought of D. W. Morgan, 1 Little College Street, Wentminater, S.W. : and The Art of Grafting and Budding, by Charles Baltot, pablished by W. Robinson, 37, Southampton Straet, Covent Garden. The Forester, by J. Brown, 6th edition, by John Nisbet, published by W. Blackwood \& Sonn, Edinburgh and London, will tell you all about the management of forest trees, \&c., in the nursery.
Carnation Propagation: R. M. P. You will find several methods described on p. 41, July 13. The steme should be cut half through, just below a joint at a point where the growth it fairly matured, but not woody.
Cocrscombs: $R . M, P$. The plant is an annual, and should be thrown away after flowering, if seed be not wanted.
Dracesnas: $\boldsymbol{A}, \boldsymbol{M}, P$. The stem thould be half cut througb just bolow a node, and then slit upwards for an inch or two, the slit being kept alightly open with a thin wedge. Mons may then be boand round the atem at that place, or a flower-pot cut in half vertically may be made to clasp the atem, being fixed to some stakes stuck into the soil, and fastened together with twine or wire. The pot may be filled with peaty moil, or peat and ephagnammose. The soil or mows should be kept moderately moist. Whensufficiently rooted, separate the rooted portion and treat it as an independent plant.
Rabwige on Nectarins Terms and Dahlias: E. B. G. and B. D. Theae insects (Forficala auricularis) may be caught in amall pote halfflled with hay, \&c.; in lobster-clawt, or, better till, in tuben made out of brown paper, pieces of the ateme of Hemlock, Elder, and Broad Beane, one end being plagged. These should be cut into lengthe of about 9 inches. In the caee of Dablias, Carnations, \&c., hang the sube on the atake that mapporta the plant, the open end downwarde. In the morning, take down the tubes, remove the plag, and blow the earwiga into a vensel of hot water, replace the plug, and hang it again on the stake. In the case of fruit trees on walls, the tabes may be tucked under the shoots and branches.
Fertilisation of Orchids: F. L. G. The Hayue, John Marray, Albemarle Street, London. A few thillinga.
Fovar: T. J. H. The fungi you nend are true Munhroome.
Fungus Disrasks of Tomatos: Solanum. Bat little good would renult from putting in your inquiry concerning thewe two well-known maladies. As a preventive meana, use the Bordeaux Mixturea formula for making it was given in a recent isne-not waiting till the disesse has declared itelf. It will not harm either the fruit or the leaves, and it will keep the plant healthy. Take care not to use it after the fraits begin to colour.
Labye: W. Cann. None wat found in the box.
Licies: F. de L. The Liliez you mention might all be left in the ground if anficiently protected. Your plants of L. auratam are probably attacked by the fungus which is eo destructive to Lilien.

Mushroom orowivg on Glass without Manuaz: W. H. P. See Gardeners' Chromicle, Augat 19. 1893, p. 214. We have no farther information.
Nambs of Frutt: J. W. S. Keawick Codlin,-A. F. Pear Early Roustelet; Apple next week.
Namns or Plants: Correspondents not answered in this isnus are requested to coniult the next number. $-B . P$. We do not undertake to name floriata varieties. Send your Carnatione to a large grower -A. F. 1, Capreseas, perhaps semperviren: 2, Libocedrue decarren: 3, Liquidambar atyraciflus: 4. Pinue Laricio var. ; 5 and 6, next week. -F.C. S. Spirsal Lindleyana, and one of the American Oaks. -W. T., Leiovetor. 1, Sedum ; 2, Anchaen italica; 3, 4, and 5, Erinas ivchaidea-J.C. 1, Viola cornuta, white variety; 2 , Geran um pratense ; 3, Melilotua; 4. Sedum rupeatre; 5, Linaria Cymbalaria; detached lanaen, without a number, Alchemille valgaris.J. W. 3, Thaya plicata; 4, Capresaus nutkaenaie; 5 , Rhas Cotinus. It is too risky to attempt to name the other acraps.-H. H. Coologyne speciona, Cattleya Eldorado. The little "Angrecam-like plant" is Trichocentram albo-parpareum.-J. S., Montrose. 1, Lastrea filix-mas; 2, Cyrtomium caryotideum; 3, Platyloma rotundifolium ; 4, Polyatichum angulare depauperatum; 2 and 3 are not British.-W.J. R. The rose-coloured flower is Laelio-Cattleya $\times$ elegans, commonly known as Lsolia elegans Turneri. The light one, LatioCattleya $\times$ Schilleriana. Both are natural hybrida, occasionally imported with Lalia parpurata. D. S. \& Son. Capressus Lawnoniana var, - C. Lincoln. Asclepias syriaca.
Small Fruits prom Nethand: T. Coomber. Uncommonly fine fraite of red-fraited Carrants, Cherry-red, and La Fertile; Ogden'a Black and White Datch Carrants; Induatry Gooseberries, and Superlative Raspberries. We have seldom seen finer, and the more remarkable from the fact that no artificial watering was performed.
Sfotted Paches: J. A. The apote are not cauned by any fangus growth. Cannot auggeat the canse.
Tomato Fruits not Colouring Properlz: H. Leb. There is no disease present in the fruit sent for examination, which in not in any way the worne for eating. $G . M$.
Tomatos: Challenger. The constitaente of atable and farmyard manure are, with the exception of the urine, too slow in their action to anit the shortlived Tomato plant; something more concentrated and readily arailable is required, and your plante are languishing for lack of it. Dang is particularly wanting in one important constituent cf the plant, viz., potsah. You muat clear way the topdressing of dang without much root-distarbance, affording alight top-dreseing of rather adhenive loam instead, and over this atrew guano, or a manare conaisting of nitrate of eoda or aulphate of ammonia, together with potash and phosphoric acid. If you ase manares rich in nitrogen and potash, but without the phosporic acid, the ripening of the crop will be retarded. The amount of manare afforded need not exceed 200 , to the equare yard, whether afforded in a dry or liquid atate; and it will not be required more frequently, at least until the foliage and crop have incresed, than once week. Ae againut the mildew, ane the Bordeanx Mixture; see answer in this page under the heading "Fungu" Diseasen of Tomatos."
Worms on Lawhs: W. E. R. Watering the turf with clear lime-water will bring them to the arface, when they can be gatbered up. This proceediag will reduce their numbera, but we cannot i vagine a lawa in good condition without worme, is they render it dryer by their barrowinga, besides boing the means of bringing the subsoil to the top, and thas helping to manure the turf.

Comhumications Reorived. - H. Noble, -A. C. F.-E. B.O. Thomas.-M. C.-T. Singleton, Curraghmore, next week; kindly send the promisert note on Cabbages.-W. H. A. Harrison Weir,-A. D.-W. H. W., next week.-A. H. R. P. B.-T. L-H. N. R.. 8ingapore. -Garlies Mitchell. M. T-J. J. W.-D. T. F.-R. L. H.-W. B. H.-E. B.-
 -W. H. P. -W.J. B. -H.W.-C. B. \& Son, Guernaey: many thaske monl much sympathy, -G. B. T. F. - N. M. - O. N Antiber- - A., Paris.-T. de M., Guarney.-T. H.-T. R - E.W. B.
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SATURDAY, AUGUST 17, 1895.

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V H E E L E R'S I M P E R I A L VI - Ravlieat and Hardieet Cabbage hoown, haring atood the severe winter where all others have fallot, Unle in like. In sealed packeta only, id. Is. and 2s, anch, poet-froo. Sole Proprictor, H.
CTRA WBERRIES. - Well-rooted runnern. $\bigcirc$ Royal Sovereiga, 2s. 6d. per dozen; Noble, 2s. 6d. per 100; Prevident, 2s. $6 d^{2}$, per 100. Carriago free dpecial price per 1000 on application. Kershaw's Perfection WHITR CABBAGZ, the best in the world, per packet, $6 d$. MXOSO
ALPETRIS, strong seedling, Fs, per 10.0 .
WILLIAM KERSHAW, Airedale Nurseries, Bingley. Cuthbert's Bulon for Barly Forelng.
ROMAN HYACINTHS, FREESIAS, 11 TULIPS, NabCISSU8, \&c. Descriptive Priced Catslogue now ready. Free on application.
R. Ano $G$. CUTBBERT, Bulb Importer and Crowers, Southgate, N .
Paches, Nectarinas, Melonn, strawborriol, \&c.
IOHN NATHAN, JUN., Long Market, Covent Bent price graranteed; $5 \%$ Comanivaion. Bankente' references.
BARR'S ENGLISH DAFFODILS. - The B most besutiful and fashionable of Spring flowars. New Descriptive Catalogne now ready sent iree on application.
BARR' Descriptive List. ready september 1. SAFTRONS, CYOLAMEN, SCILLAS, SNOWFLAKES, EC List free on application.
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BARB AKD sON, 12, King Street, Covent Garden, London. $\mathrm{M}^{\text {ESSRS, }}$ KVERS Amp LABCHE
 10 for 51 Rble.
IRIS RETICULATA, per 100 roote, 18 Rbla., 10 for a Rble. FBITILLARIA TULIPTFOLIA " 28 Rble, 10 for 3 Rble PLEONIA OOLALLNA Wholesale Trade CATALOGUE of Catras.

Petroleum! Petroleum I! Petroleum \|!
BRILLIANTILLLUMINAN ANDREW POTTEE, Melbourne Works. Wolverhampton. Maler to the Queen and Prince of Walea.
WEEKS \& CO, Horticultaral Baildera J. to Eer Majeaty, H.R.E. the Prince of Wales, H.M. Goyal Botanic Boc., Park and Pablic Buildinge, Patanten of the Duplex Upright Tubular Eoilers, King'sBom, Ohelaen, A. F.

## SALES By AUCTION.

Tuesday and Wednesday, Aug. 27 and 28.
The UNSOLD PORTION of the WILSON COLLECTION

MESSRS. PROTHEROE and MORRIS have received instructions to SELL by AUCTION, at their Contral Sale Rooms, 87 and 88 , Cheapeide, London, E.C. on TUESDAY and WEDNRSDAY, August 27 and $28^{\circ}$ COL Without Reserve, the Un
IECTION of ORCHIDS.

WITHOUT RESERVE.
The Sale contains, among others: Sobralia Kienastiana (several plants)
Cattleya Schrodere alba
Reinechian
$\mathbf{W a g n e r i}$
Odontogloserm
sum
Cattleya Gaskelliana alba
Lexlia elegans
, Scottiana
Oypripediam Morganim Burfordiense
Leelis elegans Blenheimensis Bluntei

Ly ceasto Skinneri alba superba ", ". armeniaca
Cycaste Slinneri imperato
Dendrobium nobile Sanderia
num
dontoglossum deltoglossum coronarium
Andersonianum var Ruckerianum vars. aspersar
Schomburghis lepidissima, *c.
Mesars. SANDER AND CO. will offer in this Sale, WITHOU'T THE Leist Reserve, a large number of grand plants of the Very fineat ORCHIDS, ineluding the new white "bellatulum. a white flowered Cattleya labiata with crimson labellum.
lefilas, cattleyas, new hybrid sobralias. NEW DENDROBES, CATTLEYA GIGAS SANDERE, do

## Friday Next, Augast 23.

By Order of Messrs. Sander \& Co., St. Albans.

MESSRS. PROTHEROE AND MORRIS have recoived instructions to SELL by AUCTION, at their
Sole Central Sale Roome , 87 and

IMPORTED ORCHIDS,
A PHAIUS SPECIES (Assamicusp); CATTLEYA CITRINA, golden fragrant blossom.
Sander's qedunte Pacho Type. Tee Finest Type. From the same district which has yielded all the finest known varietief. The plants are in exceptionally ane cond this Sale will be a grand opportunity to acquire this fine form of 0 . crispum, which, for size, colouring, and beanty of flower is unequalled.
DENDROBIUM PHALIENOPSIS SCHRODRRIANUM,
CYPRIPEDIUM DAYANUMM, beautiful both in foliage and flower: ODONTOGLOSSUM CTTROSMUM, plants in fine Order; DENDBOBIUM HEDYOSMUM, Wallfower-scented; GRINUM. Tae plants are in fine condition. O. UNGUICU LATUM, A TRICHOGLOTTIS species, and an AERRIDES or SACCOLABIUM species, supposed to be new; DENDRO-
BIUM CLAVATUM and D. JRNKINSII; CYPRIPEDIUM BIUM CLAVATUM and D. JRNKINSII; CYPRIPEDIUM
ROTHSDHILDIANUM, fine imported plants; ONCIDIUM ROTHSDHILDI
PELICANUM.

CXPRIPEDIUM INSIGNE MONTANUM,
from the seme district which yielded C. I. Sandere and lefita glauca, L. WEndlandiana

## and L. CINNABARINA.

## Upper Holloway.-Unreserved Sale.

IMPORTANT SALE of Valuable STOVR and GREENHOUSIE ORDER OF Mespe B WHUN
by Order of Mrssbs. B. S. Whllays \& Son Who, with a view to removing their Nurseries to more commodious premises in the country, are about to dispose of a portion of their Freehold Land for building purposes. SPECIMEN and HALF-SPECTMEN Catalogue :-Splendid SPECIMEN and HALF-SPRCIMEN PLANTS, and aleo a large selection of GENERAL NURSERY STOCK, including Crotons, Tree Ferne, Palms, Kentias, tc. ; also fine specimen Lapageria alba and rosea, Allamandae, Bougainvilleas. Clero dendrons, Pandanus, \&c., and a large assortment of Cannas, Dracznas, Crowons, Arancarias, Amarylis, Pancratiumas, AnAUCTION, on the Premies, Victoria and Paradise Nurseries, $\mathbf{M E}^{\text {Up }}$ ESSRS. PROTHEROE AND MORRIS, on MONDAY and TUKSDAY, Septamber 16 and 17, at 12 oclook eech day.
May be viewed any dey prioz to the Sale. Catalogues may bel had at the Nurserios, and of the Auctioneers, 07 and
68, Cheapside, London. E.C.

## great annual trade sales.

MESSRS. PROTHEROE AND MORRIS beg WINTER - FLOWERING HEATES AL TRADE SALES ORE PLANTR, will take place as follows:
MONDAY, September 9.-At the DYSON's LANE NUR-
SERIRS, UPPEA EDMONTON, by order of TUESDAY, September 10. At the by order of Mr. H. B. May. SERIES, LEE,, E.E., by order of Mesars B M MOAD NURWEDNESDAY, Soptember 11, - At the NURSERTES, SOUTH WOODEORD, by order of Mr. John Fraser.
THURSDAY, September 12, - At the BRIMSDOWN NUR-
GERIES, EMFIRLM HIGHWAY, FRIDAY, September 13-At the LOVGIAND Mr.J. Maller. 8IDCUP, by order of Mesark Gregory kn's NURSERY. Ontalogues of the above Sales Guay be had it the Nuraerieg; and of the Anctionaers, 87 and 68 . Oheapsive London, E.C.

## Monday and Thursday Next.

DUTCH BULBS. SPECIAL TRADE SALES.

MESSRS. PROTHEROE AND MORRIS will SELL by AUCTION at their Central Sale Rooms, 67 and 68, Cheapside, London, E.C., on
MONDAY NRXT. August 19 ( MONDAY, August 28, and THURSDAY NEXT, August 22 THURSDAY, August 29

At $120^{\circ}$ Clock each day.
large consignments of NAMED HYAOINTHS, TULIPS, OROCUS, NARCISSUS, and other DU TCH BULBS, together with white ROMAN HYACINTHS and $p$ p
CISSUS received direct for Unreserved Sale.
Theee early auctions have been specially arranged in lots to uit the Trade and other large buyers.
The Auctioneers will be pleased to enter the names of intending purchasers on their permanent lists who may desire a regular supply of catalogues for these Sales.
Auction Rooms and Offices, 67 and 68 , Cheapside, London, EC.

## AUDENSHAW, NEAR MANCHESTER

## HIGHLY IMPORTANT SALE

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## $E S T A B L I S H E D$ ORCHIDS,

WITHOUT THE sLIGHTEST RESERVE, BY ORDER OF W. R. LEE, Esq.,

Who is relinquishing their cultivation, in con

MESSRS. PROTHEROE AND MORRIS are favoured with instractions to SELL the above renowned Collection on the Premises, on
tember 24, and TWO YOLLOWING DAYB, at 12 for haif-past tember ${ }^{\prime}$ 'Cock precisely each day.
12 o' Clock precisely each day.
The Collection is justly celebrated for the large number it contains of plants of exceptional merit and rarity, the whole containg in a most healthy condition.
Also the GRERNHOUSE PLANTS of Sorts, FERNS, the arections of Six Greenhouses, Saddle Boiler, 1400 feet of Hotwater Piping, chiefly 4-inch, Frames, Barrows, Lawn Mower, Garden Roller, Flower Pots, Garden Seato Garden Roller, Thanatophone, and other Sundries.
May be viewed by appointment any day prior to the Salea. Catalognes may be had of Mr. Thomas' Billington, the Head Gardener, on the premises, and of the Auctioneers, Valuers, and Katate Agents, 67 \& 68 , Oheapside, London, E.C.
N.B. - The Orchids have been exhibited in London and Manchester, and have obtained many First Prizes, A wards of
Merit, F.-C. C.'s, Gold Medals, and extra prizes wherever Merit,
ehown.
Wednesday Next.-A
SPLENDID OOLLEGTION: DUTCH BULBS
MR. J. C. STEVENS will SELL by 11 AUCTION, at his Great Rooms. 38 , King Street, Covent Garden, W.C., on WrinN
at half-past 12 o'Clock precisely,
IMPORTATION of BULBS from HOLLAND, comprising choice named selected HYACINTHS, TULIPS, CROCUSES, NABCISSUS in great variety, SCILLAS, COL the leading Growers and specially lotted to suit both the the leading Growers and
LILIUM HARRISI, from Bermuda; TUBEROSES, Winter ACONITES, LENT LILIES, and various forving BULBS, SEEDS, \&c.

On view morning of Sale, and Catalogues bad.
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 I AMPTON-ON-THAMES, on The Marling PARTK EbTATE, free from London fogs, a deep wich Loam, the favourite neighbourbood for Growers, FREREHOLD LAND for SALE, on eary system of payment. Excellent sites
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Schedules may
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ROYAL BOTANIC SOCIETY the Great lily show.
The First Special Exhibition of this glorious flower eve
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GRAND SPECIAL EXHIBITION OF GRAPES.
It is expected thint this great display will, in a sense, bo anique in the annals of Horticultural demonstrations. Open on THURSDAY the 22nd inst., at 12 at Noon, and
2emain open till SATURDAY EVENING the 24th.
Gardeners from any part of the country can purches admiseion tickets at $8 d$. each, by applying to the underigned on or before the 19 th ins
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$x^{2} 200$ in Prizes, and Two Silver Challenge Cups.
Last Day of Entry, August 2\%.
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 6 Stove or Greenhouse Plants … ... \&4 £2 10s. \&1 100 6 Orchids
Group of Plants, not less than 100 sq. feet. 9 Fuchsias
Collection of Fruit, 12 dishes
8 Bunches of Grapes, 4 varieties

And 5 other Olasses for Grapes in varieties. Paizes in proportion Kntries close Aug. 23, Friday. For Schedules, \&o., apply toberland Buildings, B. R. F. PEARSON
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On TUESDAY, WEDNESDAY, and THURSDAP, September 3, 4, and 5,
In connection with that of DAHLIAS and GLADIOLUS.
Schedules of Prizes on applioation to-
RICHARD DEAN, Hon. Sec., Ealing, London, W.
P ROTHEROE AND MORRIS, Honticur tural Mariet Gardei and Fstate Auctionerge and Valuers, 67 and 88, Cheapside, London, E.C., and at Liestian.
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Good, olean, and bushy stuff, in 48 's at 4 s .6 d. per dozen.
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Write for Prices and Catalogue for 1895.
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250,000 Von sion daffodils.-A $^{\text {Van }}$ 7s. 6d. per 1000. All stock, in lots of 10,000 , for cash, at
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Large-Flowering Paper-white NARCISSUS. DOUBLE ROMAN NARCISSUS, from $B$ inches to 81 inches in circumference.
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T1 FINE PLANTS JUST TO HAND IN MOST PERFECT ORDER and grand condition, among them many saperb speoimens of very large size. The plants are really fine, compact, and beautifully leaved, with eyes dormant.

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ED MUSHROOM SPAWN.
BEING one of the largest 1 Manufacturers of Mushroom 8 pawn, and leeping orer 100 cown from which I obtain a largequantity ct paro virgin spawn,
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## CATTLEYA AUREA.

## Odontoglossum

 crispum. CYPRIPEDIUM SANDERIANA.
## During the week large quantities of Imported

 Plants of the above-named Orchids have arrived at the Nursery, Upper Clapton, where a visit of inspection is cordially invited.

BOTANY AND GARDENING AT harvard university.
$\mathrm{E}^{\text {VERYoNE interested in Botany and Horti- }}$ calture must have heard of the famous room in the Botanioal Museum at Harvard University, where the glass flowers are preserved. These models, whioh have been mannfactared in Germany by a man and his son, named Blasohka, are composed almost entirely of glass. The oolour is very largely in the glass itself, although some is placed on after the flowers are made. Where possible, the entire plant is reproduoed life-size; in other oases a branoh or a leaf and the flower cluster. The beanty and accuracy of these models are beyoud belief, and in some oases it is difficalt to distiuguish between the models and living specimens, when they are placed side by side. Quite recentls an Amerioan contemporary gave a short review of the botanical work at Harvard, from which it may be interesting to extract a few details. In 1842 Ass Gray was chosen Professor of Botany at Harvard University, and he soon set to work to improve the Botanio Garden. Ass Gray, it was anid, did more than anyone else to introduce the laboratory method in botanioal teaching. With him the stady of Nature mesnt oontact with Nature, and not what someone else had written about that contact. In 1873 Dr. Gray renigned his profeseorship, and one of his two assistants, George Linooln Goodale, was sppointed in his stead. The other, William Gibson Farlow, a few years later took oharge of the work in oryptogamio botany.

At the present time the herbarium of phane. rogams is looated in the building at the Botanic Garden. A curator and two assistants are engaged upon the study of collections which are constantly being acquired. The Botanic Garden consists of 7 acres of ground tastefully laid out into beds. In these beds there are plants of 1500 native species, 1300 foreign species, and 400 varieties. In the greenhouses there are under cultivation about 2400 species and varieties. The arboretum is at Jamaica Plain, about 7 miles from Cambridge. It oovers about 230 acres. By an arrangement with the city of Boston, this has been made a part of the metropolitan park system. The plan is to oultivate every speoies of tree and shrab which is oapable of withstanding the severity of a New England winter. How well the Direotor has suoceeded is attested by the fact that the Harvard or Arnold Arboretum, as it is called, is universally recognised as the finest in the world. The Arnold Arboretum has become one of the most charming places for certain studies of a general nature within reach of the public of Boston.

The Botanical Museum at Harvard consists of a collection of economio plants containing practically all the prodacts used by man. It is interesting to note that New York will soon be in possession of a botenic garden of the first
order. The subseription pre-requisite to the issue of manicipal bonds has now been oompleted, and it now only remains for the city to carry out its part of the agreement, by raising 500,000 dols. for building parposes, and by providing 250 acres of land in Bronx Park or other saitable place. It is hoped that other cities will soon follow the example of New York by enriohing their park systems with an educational aid of the greatest value. Mr. G. L. Goodale, of Harvard University, in an article contributed the other day to Science, put very clearly the uses of botanic gardens. Formerly, they were largely used for the oultivation of medioinal plants and for the reception of species from distant lands. Now new phases of plant relations are being displayed in the larger botanio gardens. Geographioal questions are asked and answered by skilful groupings of species. The bearing of olimate on the struoture, habit, and possibilities of plants is made prominent in an interesting fashion.

In fact there are numerous stimulating sights in a botanic garden if one only takes the trouble to look for them. We so often regard our American cousins as absorbed in the business of making dollars, that it is refreshing to find that they do not forget those higher pleasures which appeal to the intellect. The effect of the numerous Universities is beginning to be felt, and many young men are throwing themselves into some stady instead of entering business and bowing down before the almighty dollar. It has been well said that as a means of mental discipline, as a souroe of knowledge becoming more useful each year, and as a stady leading us closer and oloser to the just appreciation of Nature and her laws, Botany is unrivalled. H. C. F.

## New or Noteworthy Plants.

## CATTLEYA FOWLERI $\times$ **

This is a very beautifal hybrid out of Cattleya Leopoldi, fertilised by the pollen of Cattleya Hardyana. The new plant has a rather slender habit. The bulbe are slightly compressed, with only a trace of ribs when young, the elder one being aomewhat, but not even deeply farrowed. The raceme of the two first flowering specimens bore two flowers, but it is to be hoped the plants will become more vigorous, and then the number of the flowers will undoubtedly increase. The flowers are in size very similar to thone of Cattleya Hardyana, and from its father the plant has received the aplendid labellum. The colour of the sepals and the larger and more tender petals are deep mauve-purple, whilot the middle lobe of it shown the most intense violetpurple. This new hybrid was raised by Mr. Maynard in the entablishment of Menrw. Sander \& $\mathrm{CO}_{\mathrm{o}}$, at St. Albans. It is named in honour of G. Garney Fowler, Enq., Glebelands, Soath Woodford, Eveex, and wan shown at the Royal Horticnltaral Society on Tuenday last.

## VARIETIES OF STRAWBERRIES and new varieties for forcing.

Trose who force the Strawberry in quantity and early, are always on the lookoat for new varieties which have the property of atting well and are naturally early fruiters. My reader will not aup-

[^11]pone that I underrate the value of any variety not noticed in this note, for the Strawberry varies so much in different soils, and the variety that in a favourite with some gardeners is of small value to othera. Take, for instance, Vicomtesse Héricart de Thary, a popular forcing variety; some persons object to it as being too small, and prefer a larger-fruited variety as having a better appearance, good flavour in so many cases being reckoned only of secondary value. The introduction of novelties and the favouring of old varieties of poor quality have to some extent caused the decline in public estimation of good forcers, viz, Black Prince, King of the Earlies, and others of mall size noted for their good Alavour. To show the interest gardeners take in this matter, it may be stated that three new varieties have been certificated this season, all of which were noted for heavy bearing, size, and general good appearance. The raising of new early varietien does not neem until recently to have kept pace with the demand, and numbers of the standard varieties have been in gardens for a long time. Mr. Laxton's variety Noble, brought out in 1887, was a great gain ae an early fruit out of doors and for forcing. It is one of the most valuable varieties ever sent out, on account of its habit, which is vigorous, heavy cropping, and large fruit. I admit it has been condemned on acconnt of its lack of flavoar, bat atill it is one of the beat early fraits ever raised, and we may, on that account, overlook the defect. The well known Keen's Seedling, a variety raised in this district an long ago as 1821, is a grand forcing Stramberry, but there are aparions varieties of it about. The original Keen's in a dwarf free-fruiting plant, and it map atill be classed as one of our best forcers, and I force 1000 plants of it every year, having, as I believe, the true variety. The finest flavoured Strawberry in Myatt's British Queen, raised in 1840, and it is even now one of the best for late forcing, although I am fain to admit that in Laxton'n "Latest of All" we have itn auperior as regarda cropping, nize, and quality; and though I cannot nay that it in good for foreing purposes, it is so as the latest cropper in the open. I was very pleased with it when forced, the quality of the fruit being all that one could wish, the only drawback being that a few of its fruits failed to ripen at the point, having therefore the ame peculiarity as British Queen, one of its parents.
To come to what may be termed the latest addition to the forcera, and one that has made rapid advances in growers' estimation in a short time, Royal Sovereign, which, I think, will be a standard variety in gardens for a long time to corae. In this variety there are size, quality, and great cropping capacity-three ensential qualities of a forcing fruit. As an earnest of my appreciation of it, I may atate that on July 29 we potted up a thonsand plants. There are Strawberries with larger fruitn than thin one, viz., Auguste Nicaise, which has no equal in cropping and flavour. Even when hard forced, it does not lack alavour as others do. Ont-of-doors in our porous soil it was very fine this year, and only three weeke later than Noble, which is one of its parenta. It has got the wonderfal vigour of the latter with the flavour of King of the Earlien-that is, a briak Pine-favour. It is excellent for early forcing, setting freely, the fraits well above the foliage, not low down among the leaf-ntalkn. As a frait for sending long distances, it is one of the beat, the pulp being firm in textare, well covered with needs. Its colour is a bright acarlet, making a choice frait for early apring.
Another new variety, and one which nhould be noted on account of its excellence as a forcer, is Stevens' Wonder, a variety which has been figared and described in these pages, noted for its wonderful cropping qualities early in the meanon. This I am only able to describe from seeing it in frait, not having grown it, but I am going to. try it for very early fruiting, and I have some planta well-rooted in the fruiting pots.
For mid-neason forcing, the new Gunton Park in very good. It is one of the trio raised by Mr. Allan, of Ganton Park, and noted for their fine flavour, The fruita are large, dark crimoon in colour, of a
briak, pleasant flavour, and a good forcer for the seamon named.

There are others, such am Competitor, a fine fruit, with firm flesh, and though not recommended generally for forcing, I have found it to be good; not, perhapy, saitable for hard forcing.
This year two othera noted for their aize have come to the front, Leader and Monarch; the first is a grand froit, of good quality, but the plant cannot be recommended for hard forcing. Monarch is equally fine, with Pine-flavour, and it promises well; and though I have not yet grown it, it should not bs left out of a list of new varieties.
With regard to the forcing qualities of any varnety, much depend on caltural treatment, and whether the forcing is early or not, on the means for forcing, renalts obtained being different with different growern. I will admit that I have a partiality for some of the old varieties, and so far my best early has been Vicomtesse, which is excellent as a firt early, being very productive, free-setting, and of the beat flavour. But one cannot force both old and new in quantity, and when the newer ones have bsen tested, nome of the older kinds are allowed to drop. Vicomtense H. de Thary (Garibaldi) has been nearly fifty years in gardens, so it has atood the test of time; and after trying Royal Sovereign for three yeare, we are growing less Vicomtesue, the new one having aize, in which the older variety is lacking. My next selection is La Grosse Suciée, a very fine Strawberry of the Keen's Seedling type, not a good traveller, but prolific, and of good quality; indeed, an regards crop, it may be clamed as the best of the older forcing varieties. It beara a quantity of evensized fruit, and soon tarns in after setting. Many gardeners look upon this as being superior to all othert. It does well in mont soils, but I find it does not like too mach exposure in winter, the leaves soon gettivg crippled. Prenident and Sir C. Napier are too well known to need anything being said about them. The firat is liable to mildew, but it deserven attention, and thin pest may readily be checked.
I am aware many gardeners are not in a ponition to grow many varietien, neither do I advise it, a he new onen in any case will only be grown aparingly at first, and one can readily have Strawberries from February till June with a variety for each month, and my selection would be Vicomteme or Royal Sovereign, followed by La Grosse Sucité, or elise the true Keen's Seedling, President, and Sir Charter Napier. It is not advieable to have great numbers of late Strawberries in pots in a season like the one we have just passed through, as fruit in the open can be had early in Jane. Again, British Queen does not thrive everywhere, and Keen's Seedling is apt to come barren. Some varieties do not thrive in certain soils, and in such the novelties should be tried. So far I have not known Noble to fail, and fruits ripened in a well-ventilated house are very apperior. Hard forcing is often eolely at fault. A fow worde as to culture at thim season. The plants should now be in the fraiting-pots, and those who care to purchase mall-rooted, potted-up plants, will be in ${ }^{8}$ better position if they get them early. To obtain runners in quantity for next neason, I am planting now, at $2 \frac{1}{4}$ feet apart between the rown, and hall that distance in the row, in deeply-worked, wellmanured land, a row of Lettuce or late Colemort being planted between the Strawberries, groand being acarce. Thene are cut by March. When growth commencer, the flower-spikes are kept pinched of a they appear, and early runner-formation oncouraged, the ranners being fit to pot ap macb earlier thand when the plants are allowed to frait. A'ter tho runners are taken, every other plant is cut out with a hoe, nome more nutriment afforded, and forked in, and the beda made neat for the antuma. The plant frait grandly the following seasoo, then being deatroyed, 8 I 2 m a great advocate for young plants. In potting, avoid excess of manure, and use good loam, a aprinkling of bone-meal, or apent Muehroom manure. Firm potting, a hard coal alit bottom to atand the pote on, and plenty of sun, are essential points. The crown may be thinned whes growth is robast, and the roote should be protected
in winter. The best winter protection in afforded by cold frames, the plants being bedded in cocoa-natfibre or coal-anes. G. Wythes.

## DISA GRANDIFLORA, ETC., AT <br> - "JOLDW YNDS."

A pleasantly ituated garden is Joldwynds, the renidence of Lady Bowman, neatling on the south nide of a hill near the pretty village of Holmbary St. Mary, about seven miles from Dorking. The visitor on entering the groand will not fail, if he be an arboriculturist, to admire the fine specimen Bamboon
minently, were large beds of brilliant-coloured Cannar. The white and pink Malope (Malva) grandifiora is planted thickly on each nide of a long walk; also vigorout plants of the dark-blue-flowered Primula resembling Alice Wilson, which at the present time is a carce plant. Benide these there were large mases of Crinum Moorei, whose large pink and white corymb of flowers have a atately appearance.

## The Orchids.

In the plant-atove a robust specimen of Dendrobiam Dalhousieanum was noted remarkable for the size and abatance of its growths, which are many-
specimen of Maxillaria venuti, with over thirty flower-spikes; besiden a strong plant of Mormoden pardinum unicolor, with two atrong epike of its lemon-yellow flowers. In a cooler house, some fine pecimens of Madevallia Schlimii and Odontoglossum cordatum were noted, also in bloom Corlogyne occellata, Anguloa Clowesii, Dendrobiam Jamenianum, Lycaste Skinneri, and Madevallia periaseria. The cool-growing Pleione humilif, planted in thallow pans and hang close to the roof, appear to be suited with their position. In a moint bady corner of the house a healthy batch of Pinguicula caudata wan observed. Pasting along into a Peach-house is a


Fig. 33.-abundinaria nitida in the bamboo garden at few. (see p. 186.)
(not the least affected by the severe froste of last winter), the masaive Gunneras, several fine plants of Veronica Andernoni, which at the time of my visit Were full of flower, and the large bede and manees of Rhododendron plants. Having aecured the gaidance of Mr. F. Cornith, the head gardener, a stroll was taken round the very beatiful flower garden, whence \& view is obtained over a lovely country, the view extending almost to the Englinh Channel, and only divided from it by a range of the Sussex bills.

Of rare, or at least, uncommon plants, two fine buabe of Desfontainia spinona were noted; the gay and beautiful Tropaolum apecioum, entwining itself around Fir and Holly treen in great luxariance. Fine clump of Iria grow thiclly around amall lake, and in full bloom amonget other wat I. Douglanii. Not far diotant, and standing out pro-
nome of them meararing more than 7 feet in length, the young nteme now growing freely, indicate that they will eventually reach an far. A plant of D. Dearei wat in bloom, and growing well; D. chryeanthum will be a pretty sight a few weeks hence; D. thyrniffornm, D. densiforum, D. superbient, D. formonum and $D$. heterocarpum are doing well. These plante are hang from the roof, where they get plenty of sunshinc. The plants of Coologyne cristata, Phaius, Pleioner, and the deciduon Calanthes give good promise of a fine diaplay of bloom in their season. Suspended from the roof in the intermediatehouse some well-bloomed plants of Epidendrum vitellinum majus, and a nice healthy apecimen of Epidendrum Parkinoonianam, with eleven of it weet-mcented flowern were remarked. Standing apon the atage in the mame houne wan a compact
remarkable apecimen of Iris Robinooniana in the beat of health, but Mr. Cornith hae not jet nacceeded in flowering the plant.
Another mall houne is almost entirely devoted to the cultivation of Streptocarpus, of which at the present time there in a large quantity of young seedlinge in bloom, many of them of aterling merit.
Seldom is that beantiful terrestrial Orchid, Disa grandilora, seen so near to perfection under cultivation athere. At the present time there are over a haodred spike in full bloom, a sight that ip, we dare to ny , unique in this country. Tte loxariance of the growth, and the large atrong flower-ppike, how that the condition are very farourable. It may be atated that Mr. Cornish success with thi plant is not temporary, it being now many yeara aince he received hia firat few
plants at the Joldwynds, and it has been rapidly increased until at the present time the plants may be counted by the hundred. I have aeen the Disas for several years paat noted how well they are being grown here, and I hope the saccens attending their cultivation will long continue. Succese may in great meneure be attributed to a cool evenly-balanced atmonphere, ahade from atrong sunshine, wellventilated house facing south, and the temperatare of which in the winter frequently falling to $45^{\circ}$. The compost in which the Disas are grown connista of good black fibroun peat, and chopped live of gagnum-monn, with the addition of a small quantity of coarse silver-and.
A nice healtay specimen of the rare Gerbera Jamesoni, also South African, grows and flowers annually ander aimilar treatment to that afforded to the Diass. W. H. W.

## PRESERVING FRUIT.

I Hate read your article, p. 92, on thit popular aubject with much interest, and as lectarer on technical edacation I find few or no antjects more fraitfal of saggentive quentions. Neither does the British practice of fruit preserving as thas illastrated and elucidated differ very widely from the American as aet forth by Miss Parloe in the Gardonera' Chronicle of Anguast 3, and through other sources. As many doabtful and even faulty methode of fruit preserving, however, still prevail, you have rendered an important service to our rural indnatries by giving Mins Parloe's lacil lectare the wide pablicity of your columns. The prizes now so generally given for jamo, jellies, preserves, picklea, bottled and candied fruit, at cottagern' and other shows, exhibit at once the virtuen and merits of our present modes of preserving frait. The chief point wanting in many of these exhibites is some ware and certain object-lenson or sandard of merit to which to appear or compare the local exhibita. Not a few of the latter are dreary failures in colour-quality keeping quantitien. With the exception of Raspberriea, it would often be difflcult or imposible to tell at aight what fruit the preserves are made of the whole are also an a rule aeriounly over-sugared and over-cooked.
The pace of improvement might be greatly quickened as well as improved were an object-lemon exhibited at village or other shows in the form of ample jara or bottles of preserves, pickled or canned fruits and vegetables from such makers as Crous \& Blackwell, Chivers \& Sons, and others. Almost every housewife prides hareelf on her jellies, her jamp, picklen, green and preserved fruits. Nevertheleas, it is comparatively rare that these come ap to trade atandards of excelleney; and could thill be generally reached, the rural districte would be the richer in consequence.

As I note the honoured name of Mr. J. J. Willis, Harpenden, ander Mies Parloe's lectare, I presume that will be acceptod as aatisfactory authority of the coundness of the chemistry involved in the theory and practice of fruit preserving proponnded by Mise Parloe. One of the moet prevalent notions is, that fruit can hardly be over-cooked. The longer it is boiled in the augar, the longer and sounder it will keep, has almost paosed into an axiom among housewives and housekeeperi. Boiling expels the watery juices, makea jelly and jam more thick and denne. The more dense the more sugar and wolid matter, and the longer the eweeta will keep. Yee, but pectine, which forme the bsais of vegetable jellies, and gives to the juices of the fruita the property of gelatinising, may be boiled down into common gam or atarch by excese of cooking. Hence there is a tide in the affairs of jelly-making which leads on to fortane, that is, long, soand, and sweet-keeping, and that is when the property of gelatinising is at its atrongest, which will probsbly be found to be after a smart boil of a quarter-of-an-hour or twenty minutes. Will Mr. Wilis confer another favour to the many he hae already bestowed uponer caltivatora by laying dowa a time meaoure for the development
of the maximam properties of the gelatinising of frait in the process of preserving them? Practically most of ue are familiar enongh with the aimple test $0^{\circ}$ setting our jams and jellies on plates to wee if they are done. Bat acientific time formulas, so as to ensure sound keeping, without any risk of boiling fruit down towardn decomponition, would be very valuable. Mr. Willis will excuse me for asking for farther information about the use of lemon-jaice to keep fruit white after paring.
In regard to an-cooked Strawberries (p. 93), after many yeara experience of growing and preserving there fruita, my advice would be emphatically, do not follow Mis Parloe in this. Of course, the lecturer is writing on American munshine. With our watery uns, I can conceive of no more likely proceas to fill Strawberry jam with fungoid germe that would haten it into worthlennens and shear rottenness, although it has been previoualy fortified with a pound of augar to a pound of berrien, and boiled for ten minutes. Unless Mr. Willis has something to asy in explanation of the following paragraph, I hope no English jam makers will be tempted to try Mise Parloe's sunbath on this aide of the Atlantic.

Thin, however, is almont the only paragraph in this very urfal lecture that may not be read, marked, learned, and inwardly digeated with pleasure and profit on this side of the water: "San-cooked Straw-berrien.-Use ripe and the finest fruits; put them in the preserving kettle with a pound of augar to one pound of berries, firtit a layer of frait, then a layer of agar, and so on. Do not have the mixtare more than 6 inchen deep; place on the fire, and watch. When the preserve begins to boil, shim carefally, and nimmer for ten minutes. Now pour the frait into meat platters, and place in the sun. After an exposure to the sun for twenty-four hoars put ap in jars or tumblera, and cover. It may be said the aun does not shine for twenty-four hours, but the fruit may be placed on tables by the windows in a sunny room, and let it remain there for meveral days or until it has had ite fall sanbath." I repeat, do not. D. T. Fish, Leoturer on Technical Education.

## Orchid Notes and Gleanings.

## CATTLEYA VELUTINA.

This is one of the prettiest of its clase, and still uncommon in gardens. It was first flowered by Joseph Broome, Etq., now of Sanny Hill, Llandudno, who then caltivated hir Orchida at Didabary, Manchester. It was supposed by Reichenbach to be a natural hybrid between C . bicolor and C gattata, but there appears to be little to support that theory. A very fine example of it comes from H. Brittan Evans, Esq., Pembroke Road, Clifton. The sepala and petale are Indian yellow, apotted with cheatnutred. The bate of the lip beneath the column is rich gellow, with come parple lines running into the white nide lobes. The blade of the lip is white, with delicate rose veining. All the segmenta curl backwarde when the flower is mature, which gives it a striking appearance; they are almo delicately fragrant.

## Cattlifa granulosa.

Several remarkable varieties showing extraordinary variation have been sent daring the lat few days. The ahowier is C. granulons gigantea, sent for the second time by Mr. F.W. Moore, Royal Botanic Gardens, Glasnevin, Dablia. The large wax-like flowers have the sepals and petals of a lemon- gellow colour, the former with many, and the latter with a few bright parple spota. The front lobe of the lip is amethyst-purple, with a white fimbriation at the edge, and the side lobes are of a yellow colour on the inside and white outaids. The flower is more than 6 inches wide, mesauring acrows the petals, which have a width of $1 \frac{1}{2}$ inch. The eecond, named C . granulowa Banneri, ia from Mr. Johu Edwards, gr. to G. Banner, Etq., Sherwood, Sefton Park, Liverpool. It is an extraordinary variety, with fowers which, in a Caraation, would be called flaked. The
lower aepala have the inner halves of a pale green hae, and the oater ones parple. The upper sepal is purple with a greenish band up the centre, and the petals have similar markinga to the upper nepal, with the addition of a margin of a yellowish tint, The lip is yellow at the base, with a lilac blade atreaked with parple.
The other remarkable forms flowered with Menn, F. Sander \& Co. at St. Albanu, viz, C. granulom Dabuynonii, with clear yellow inspotted sepals and petale and richly-coloared lip; C. g. princepa, which in size most nearly approaches the C. g. gigantem, with the sepals and petals almost wholly of a rich vinous parple; and C. g. Dijanceana, which a botanist would regard as the most interesting of them all, as its mall flowers seem to indicate tho atarting-point of the species. Placing it and $\mathrm{C} . \mathrm{g}_{\mathrm{o}}$ gigantea, they are difficult to reconcile as the name species, but the other three mupply every link in the chain connecting them, J. $O^{\prime} B$.

## THE GLASNEVIN BOTANIC GARDENS.

On the occasion of a recent visit to Dablia I found time to visit the Botanic Gardens of the Iridh metropolis. The equatic-house was alone worth a visit, so well is it filled with Nympheas, many of which were in flower, including the following apecies and varietien, viz., N. Marliacea, N. n. roeea, N. D. carnea, N. Laydekeri ronea, and N. odorata alba.
The Victoria Regia tank in another house contained a specimen of this apecies with some leasa 3 to 4 feet across. In the same tank were plants of Nelumbiums and Nympbæas in great variety and perfect health. In the four semi-circular tanka here were more of these plants, the following being in bloom, viz, Nympbæa atellata, N. A. parvifolia, No o Berlin variety, N. gigantea, N. gracilis. N. blande, N. fava, N. dentata, N. Lotus rosea, N. L. Ortgieaiana, and the large Tulip-like Nelumbinm apecionum roseum.
The Orchid-houses contained more than oste hundred species and varieties in bloom. All of these plants were in aplendid condition-not an unhealthy one amongat them; and the general cleanlinems and the tasteful arrangement of the plante bespoke the care paid to their caltivation by the Carator, Mr. F. W. Moore.

## FRUIT AT GLEWSTON COURT.

The cultivation of fruit is so thoroughly well dowe at this place as to merit a few noten in the pagen of the Gardeners' Chronicle. Fruit it grown in grent quantities for market, and the whole concern is coll ducted on atrict commercial principlen, based upon and coupled with sound, practical experience; in short, it is one of those rare placen where the enterpriaing capitalist has made the anccessful experiment of fruit farming on suitable land very mach more atiafactory financially than the old played-oat syatem of corn growing and ordinary farming.

Mr. Lee Campbell, the proprietor, and Mr Wright, his gardener, are each as enthunisatic al they are clever; moreover, they are just as rondy and eager to impart information to any interested persons who choose to call. Sach an object lessod, and auch a fund of atefal knowledge available, it invaluable. It should help to colve a portion of the agricultural depression, give employment to worketh aupply better fruit to the conumer, at well at bel to check the quantity of foreign imports, which drai the money from home induatries.

Apple and Plum growing is a great anceses, bul Pears are failure. The plantation consiets about 10 acres, and contains about 6000 trees, apple they were planted about twelve yeart ago. Appl trees atand at 9 feet, and Plums at 8 feet apart. and trees are now about 9 to 10 feet in heigar, seet bathen occapy the whole ground between the thed Every tree in a perfect mpecimen, so well hare thyile been managed. There were about 600 Ecklintile Seedling in one block, and the crop on them if snormone one, ae every branch from the atem of the
tree to the extramity is a cordon of healthy fruit, and highly-coloured for the early part of the aeason. The thinnings from the tree were sent to the jammakers, welling at 68 , per cwt . in the middle of July, the beat-placed frrits being allowed to remain. Peangood' Nonsucb, Golden Spire, Cox' Orange Pippin, American Mother, and many other varietien
were evidently benefited by these operations. Other orchard are found on the farm, but nothing that can compare with this one in the quality of the froit.
Grapes are largely grown ander glass, and the Vines are marvels of high caltivation. Three years ago when I saw the huge crop of Muscat of Alexandria in one of the houses, and the enormons crop


Fig. 34.-arundinaria smont. (ste P. 186.)
are amongat those caltivated. Probably a miatake Wha made in planting too many varietien.

The woil-a very thin layer-is aituated on the old red andatone, and gently slopes toward the valley of the Wye with a S.S E. aspect. Plums, too, are enormoully cropped, Victoris being a great favourite, giving prefitable and remanerative cropm. Daring the late drought two steam-engines were emplosed to diatribate water, a good roaking of the land being aforded (about 1,000,000 gallons), bevides a drening of muriate of potach and aperphophate; the trees
of Black Alicante in another, I predicted that auch a crop would never again be seen on thewe Vinet, as it looked like killing the goose which laid the golden egg.

Imagine my great antonishment the other day when I called to find that the crop wal much heavier than before, decidedly better, the banches long, with heavy shoulder; berrien very large, and taking ou a bright amber colour, no signe of thanking, bat the foliage rich dark green, very luxariant and gross; evidently there was p'ant-food of the right
character within reach of the roots. Doubtless, some of these banchen will give a good account of themelves on some exhibition boarde at a later date, and show what can be tecomplished when ncience and practice go hand in hand. At all evente, the crops and results are worth going 100 miles to see, and they would teach weightier lessons than some of the technical education lectures that we are expecting so much from in the future. It it the capitalint with enterprise as well ae the worker that is wanted. William Crump, Madresfield.

## Foreign Correspondenge.

## FOOD REQUIREMENTS OF THE CHRYSAN-

 THEMUM.Tes above aubject was referred to by a correspondent in these pages on June 23, and continued Jaly 7 . 14, and 21, 1894, but an it is of great intereat to cultivators, and as it has not been possible to get experimental evidence much before this time, it may be just the proper time to return to it now.

Has anyone acted on the advice given, and with what resulte? I had expected to hear something more about it during the Chryanthemum season, but so far, nothing hat appeared. Can it be that nobody has tried the artificial manures recommended, or have triali in all cases ended in failurea, and are the reaults therefore withheld?

Being myself a cultivator of some 1500 to 1600 plants, mostly for cat flowers, and having only a light and poor natural soil for potting, I gave the question considerable attention, ite appearance being only a hort time before the final potting. Now, reliable and complete analysen of plants as that of Chryanthemums, quoted at p. 778, Gardeners' Chronicle, vol. xv., are of the greatest intereat and value to cultivators, bat, of course, they do not give exact figurew. We have got a complete analyaia of the oil we are going to une at the amme time, and as thin is in most caver difficult to get, always take a long time, and moreover it rather expenaive, it will not often be at command, bat then the plant-analynis only given approximate figures, and serves at a banis for experimente. As such I considered it, and having in my mind earlier failure by uning artificial manures in potting soil, I wat on my guard.
The soil uned for the final potting consisted of two-parts rather light and poor bat fibry turf, twoparta compont from a well-decomposed rabbinh heap derived montly from the houses, cant-away plants, old potting soil, weeds, a little ashen and charcoal (I nee firewood at fuel), \&c., and one-part masure (from horses and cows mixed). This compont, well mixed and in good condition, I still considered
 ( 6 to 8 incb), and decided to add nome artificial fertilizers.

Juet at that time, Mr. Willis' paper appeared (rol. xv, p. 778), bat for the akke of convenience I used my own mixture, having the following ingrediente at hand.
3 parts Kainit (12 per cent. potash)
3 . Basic slag (16 to 17 per cent. phosploric acid).
1 "Sulphate of ammonia ( 20 per cent, nitrogen).
1 " Phoophate of potash (28 per cent. potash, 38 per cent. phosphoric acid).
This mixture given the principal ingrediente in the following proportion:-

| Fotadh. |  |  | In Mixtare |  | In $\mathrm{AnL}_{10}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | .** | ** | ** | 1) |  |
| Phosphari |  | ** | -* | 17 | 10 |
| Soda | ** | * | - | 12 | 10 |
| Chlorine | $\ldots$ |  |  | 8 | 3 |
| Magresia | ** | -00 | -* | 16 | 10 |
| Nitrogen | ... | ** | ... | 4 | - |

beaiden this, there in afficient lime and iron in the basic ulag and sulpharic acid in the kainit. Convidering that I had a good supply of nitrogen in the atable manure, and that my anl is rether rich in potanh (reating on and originating from rock rich in potab), I thought the mixture should be a good one.
The rate in which I used it was one part of the
mixtare to about 400 parts of soil, this being considerable less than recommended by Mr. Willis, his prescription being one part of a similar manare to 250 parts of soil ( $\frac{1}{4}$ ounce to 4 lb .). Mr. W. Dyke recommends (p. 74) ten times as mach (75 ounces to 120 lb .), and still wants to supplement it later on with top-dressings. I shoald like to know with what reanit auch a quantity can be aned. The manure was well incorporated with the soil by turning it neveral time daring the fortnight it wan lying before being ased.

Daring the firat half of Jaly, part of the plants were shifted into this soil, the other part being planted out in the open ground. Daring the next two monthe, I was not satisfied with the look of them at all. They made but little progress, the leaves were amall and of a rather yellowish-green colour, still the plante were not really unhealthy, and they filled the pots well with healthy roots, but they lacked the dark-green colour and robutnens of leaf and branches which plants in the open ground possessed. At the time they were hoased ( 24 to 25 September), they were about 1 foot shorter than anael, and did not look promising at all.
But from that moment to the present time, October, 1894, they have done mach better than expected. They commenced to grow at once (for this the warmer climate may in part account), showed bude well, and they have been flowering the whole of this month quite as well as any previous year, and I think they are nomewhat earlier than usual, though I have only planted-out planta to compare with ; these were lifted some days earlier with gooa balls, and planted in an old Cacamber bed in front of the reme hoase in which the plants in pots occapy the middle. These planted-out planta got a serious check somehow (they had a few degreen of front one night, but the plants in pota had the same and one night more without any injary), cauaing the firat bude to remain undeveloped, and up to date, we have not cut a single flower from thewe, having cut about half the crop from the plants in pots, sorts the same, but they promise a rich and welcome late crop of small flowers.
The conclations I draw from this experiment, and from some earlier ones in the ame direction with other pianta, is, that artificial manares (especially kainit and basic alag), are rather dangerons substances to ane in potting soil, that I only just encaped failure when uning the above mixture in proportion of 1 to 400 , that the compost suits plants much better after mome month than at first, showing that it is advisable to have ach arbatances mixed with and well incorporated in the noil at least mome monthe before uaing it for poting. But the good crop of flowerv from rather miserable plants also show that, at last, it was the right thing. Farther, my experience confirm rather than otherwise, the general statement that manure rich in potanh and phoophoric acid promoten fertility rather than growth, and tend to make flowering and fraiting earliar.
It is all very well to know that artificial manuren, as the above, cannot with advantage be mixed with *oil that is to be ased at once, bat it would be very interesting to know why. It is not precisely injurious to the roots, at lentt I could not, by frequent and clone examination, detect any trace of injary. The only explanation I can suggent in, that by uaing there concentrated mineral altats we are sterilizing the noil, depriving it for a time of all that animal or vegetable life which otherwise decomposea, preparing and sweetening the soil, and making it more fitted for plant growth. I wish some bacteriologist could see his way to solve this problem, for to apeculate, speak, or write about it is not of mach use. I believe that in rezard to harmfolness, there is a great difference between artificial manares of animal and those of mineral origin, these lat being much the more daggeronn. This would aleo account for the many related and trustworthy casen in which much greater quantitien than the above have been applied with the best resulta. As examples of asfe manures, I shall only mention bonea for phozphoric acid, natural guano for nitrogen, and aohes (vege-
table) for potash. Bat mineral manures may also be safe if applied at the right time, and they are generally mach cheaper than the othera.
This event is a good answer to the question about theory and practice, and shortly pat it if, that theory has here, without any caution being uned, given a very dangerous advice, and your mach blamed non-theoretical, but very practical gardeners, have one and all-at least it seems so to meescaped a serioun failure by not taking any notice of the advice given, preferring to atick to old tried methods antil the new ideas have been put to the test. This is always asfe, and perhaps it is the best way to go. We gardener cannot all be masters of chemistry or other ciences relating to horticulture, but what we require are trustworthy middlemen, and these you have got in every branch of acience-in this connection only to mention Sir John Lawes and Sir Henry Gilbert. But I am again entering on this intricate question, and it is not my theme on this occation.
I cannot close thene remarks on Chrymanthemams without mentioning that it in not with unmixed pleasare I alwaya closely follow every Chryanthemum event in England from beginning to end; it is interesting to search for new varieties, and very gratifying to see almost all those procured one year appearing again in moat prize-winning stands the following season. But the pleasure is mixed. I am envious because I never anw a Chrysanthemum exhibition or an exhibition flower; we have not got exhibitions get, and I do not think it would pay to grow anch flower here for the cat flower trade. "Don't apeak about Chryanathemums, then," I hear my more fortanate Eaglish colleagaes exclaim. Still I, too, am glad to find many adrocates of our mode of culture in Eagland, and I always find great pleasure and profit in a house filled with handreds of 3 to 5 feet plants in 6 to 8 inch pote, carrying some ten to twenty flowers, each measuring 3 to 5 inches in diameter, and in almoat all the varieties that are to be found at your exhibitions. If $I$ am surprised at anything concerning Caryanthemam caltare in Eagland, it in the small number of varietiea recommended for cutting parpones. I find that the varietien C. Davies, M. G. Gruaerwald, Madame Ed. Rey, Col. W. B. Smith, Condor, Florence Davies, Gloire du Rocher, Jeanne Delaux, Marie Hoate, Miss Watwon, William Seward, Viviand Morel, W. H. Lincoln, Boqquet den Damen, F. Marrouch, Madame C. Audigaier, Mra. J. Wright, and other good exhibition sorts pay me an well as thone much recommended, and much better than do the incarved, pompon, and anemone classes. M. P. Andersen, Jönköping, Sweden.

## OUR FRUIT TRADE.

The Colonial and foreign fruit trade is growing into vast proportions, and in all fruiterers' shops, and in those of most respectable greengrocert also, at any time of the year may be found lancious fruita from lands far removed from this bay corner of the globe. No sooner is the Cape season over than in comes fruit from the Antipoder, from the Pacific bordera, and sunny lande and islands.
To-day good Oranges are keing retailed in London atreete at the rate of foar a penny !-not dried-ap rubbibh, but toothsome apheres of sweetness. As to the Cape nupplies, much has still to be learnt by thowe engaged in the trade. Some of the fruit nent to market are fine apecimens, and reward the aender; mont of the remainder ought never to have been placed here on asle. Good G:apes, Pearn, Apples, \&c, are certain to find a ready and profitable ale here, and juat when they are wanted. The Australavian fruits now helping as to bridge over the term daring which Eaglish Applen are prictically non-existent, are in excellent coadition, though they have to go to the wall in face of the grand collection of oft fruit now making beantifal the stand in every market, and in all retailers' shopm. of Tamanian Applem, it is plessant to be told by the highent authority that, "taking the seavon as a whole, the prices reached were very fair, and the
quality of the froit was generally better than that of the previous season. The general condition of the fruit on landing was also better than anal." Xear by year it may be noticed our friends at Hobart are themselves learning the lessons which experiencs teaches best. It is worth noting that the ship caral from the Mersey to Manchester is having some in fluence on the frait trade of the district, and it in contended that the cost of distribution is lowered by carry. ing fruit direct to the wharf in Manchenter. Bat be that as it may, all we have to notice is the fact that competition between Liverpool and Manchenter max lead to enlarged sapplies from all quarters of the globe, to the benefit of the consumers generally. In this connection it is interesting to observe that during the season juat closing the North of England Fruit Brokers' Association has sold upwards of 220,000 packages, made up of fruits of all kinds, from all frait-producing countries-there not being any kind of frait imported into Liverpool which have not been seen at market in Manchester.
Tue great bulk of the trade done at Mancheter has hitherto been in Valencia Oranges; but nem fields of aupply, we are told, are being formed in Italy, Sicily, Smyrna, Litbon, and Seville; and efforts are now being made to procure trade in Canadian Apples ; and so, after all, it may come to pass that all the year round we chall have a mupply of fresh fruits from whence to draw comfort and health. E.C.

## Belgium.

CHAMBRE SYNDICALE DES HORTICUL. TEURS BELGES.
The last monthly meeting of this association wa remarkable for the number and excellence of the exhibis. Certificates of Merit were awarded to M. Em. de Cock for Anthariam Scherzerianam wrir Adriani, apathe aturdy, habit fine, coloaring excellent; to M. L. De Smet-Davivier (par acclamation) for Nerine Fothergilli; the plant bore meven foral racemes, and was in a pot decorated with Adiantam, The effect was beantiful; the trases of bright cinnamon-red flower were very effective among : mass of pale Odontogloanames. A certificate mu aloo awarded to M. Emile de Cock for Grisebachis compacta nana, very dwarf, sturdy and vigorocts, very diastinct; to MM. Alsberghe and Van Oost for twenty pots of taberous Begonias, and 120 cat flowers of an excellent atrain; the peduncles firm, flowers erect, and of colours as varied as ditinct; to M. Bedinghaun for Agave Tronbetzkogana, a fing example of a specien becoming very rare; to $\frac{1}{}$ Françoie Desbois for Spirsea Anthony Waterer; to the same exbibitor and also to M. Dallière for Physalis Francheti, both well known in Eng. land; aleo to the same exhibitor for Aristolochis tricaudata, a aturdy free-flowering plant, with very singalar flowere and carions in coloaring, enpecially remarkable for their very long tailo. M. Deabois also obtained a certificate for Daphne Laureols atro-purpurea, remarkable for the peculiar coloring of the leaves, which are dark purple merging into bleck; MM. D. sbois and Pynaert obtained cefo tificates for Eaphorbia Fournieri, a plant which looks an if ita pretty green leaves were growing of a Cactas; M. Szewezick with tuberous Begonias, cal flowers, in every way admirable. Other certificaten were amarded to M. Jules Hye (par acclamation) for a Cattleya Rex, a aplendid flower of this fine planth and showing the value of the apecies; to the namis exhibitor for Laxlio-Cattleya Proserpine (L, pumis $\times$ C. velatina) also par acclanation; this fine Orchid resembles C. velutias in habit, ahd C. pumils in coloaring; to M. Joseph Alsberge (à lunaniminit) for taberous Begonias, last year's seedlinga, vigorows well-bloomed, the flowers erect and atardy.
Certificaten for good calcivation and flowering were allotted to M. L. De Smet-Davivier for Adiantum macrophyllum albo atriatum, a charming plant whereon the rous-red of the young folinge is very effective among the adult fronde, which aro atreaked with white; to the eame exhibitor for


Fig. 35.-phyllostachis vibidi gtaucescens. (set p. 186.)


Fig. 36.-phyllestacty: Qulidi. (see p. 186.)

Aralia monatroos, a fine apecimen with twentsfive glony and healthy leaves, certificate ewarded it bunanimite; to M. Kayk (nlso à l'unanimite) for Earya latifolia variegata, a epecimen of conaiderable vigoar, and very bealthy. Cortificaten were also awarded a follow: to M. Cb. Spae for Rondeletia apeciona, growing in a fae tran about 18 inches acron, and well covared with pretty flowern of bright-red colour, with orange centres; to M. Bedinghau for Sollya heterophylla, a pretty globebaped plant covered with handred of mall chinahiue, bell-shaped Gowers ; to M. Wycksert for Lycaste Dappei, a well-bloomed specimen; and to M. Szewezick for Geanerias perfecta robasta alba and latea in pots, and bearing quantities of charming flowers, and also for Selaginella Emneliana, a plant measaring more than 18 inches acros, very well grown, and very healtby. Ch. De B.

## SCOTLAND.

## DISA GRANDIFLORA.

Edinborgr.-Every year as the flowering seacon of theae plant come round, we are reminded of the great beauty of these Cape Orchide, and the amount of admiration expressed af the firat night by the visitorn, bears testimony to the popularity of this species when well grown. In a large number of establishment where collection of Orchids are grown this one is omitted, oftentimes on account of failure in its cultivation, the reason of failure being difficult to account for-different degreen of hamidity of the atmonphere, water, and other causen being brought forward as causes. But even in districts where it in known to ancceed well it is not by any mean commonly seen, but restricted to a few establishments. Here it growa with little more attention than that given to ordinary greenhouse plante, among which they are grown. The compont used is about three parts of roughly-broken peat and one of good fibry loam, with lumpe of andatone and charcoal about the size of Walnuts to keep the soil from becoming nour, owing to the large quantitien of water required. Pans are used for potting, our largent apecimen being about 18 inches in diameter, and nearly a foot deep, to allow of a large amount of drainage. In this compost the growthe are atrong, and the foliage firm and large, the atem: bearing in some cases five flowerw, from 3 to 4 inchell acrow. The plants require but little rest, the nucceeding year's growth generally appearing soon after they have finished flowering. Jant now for convenience our apecimen are occupying a place in the succulenthouse, where they are ataged apon'a bed of sphagnum, and enjoy fall expomure to the an and air, and receive copions mupplien of water. The colour of the flowers is dark, and the smbatance good. R. L. Harrow, Royal Botanic Garden, Edinburgh.

## The Week's Work.

## THE EARDY FRUIT GARDEN

By W. Pope, Gardener, Highclere Casthe, Newbury.
PINCHING LATE GROWTH8 ON FRUIT TREES - The heavy rains have generally resulted in an abundance of lateral and ablateral growth on most of the fruit trees, especially on tho which are lightly cropped with frait. Such growthe should be shortened back to one leaf, the exceptions being the shoots of 2 or 3 inche in length, which show a plamp terminal bud, and these need not be shortened. a the bnd will probably prove to be a bloom-bad: brt where meh boote on wall or espalier-trees atand out farther from the base than is devirable, they must be removed with the reat.

APRICOTB, 8TOPPING, ETC.-Continue to top the foreright thoots, and remove overgrown spurs, old and bare branchen, where such can be pared, training in joung wood thinly, so that perfect ripening in entared.

PEACHES AND NECTARINES, PINCHING AND TRAINING-AnY grose foreright bhoots on these treen hould be removed, all ablateral growtha chortened back to one leaf, and any shoot which are likely to make too vigorous and long a growth may have the point removed. Train in the young shoota thinly, and take care to allow the fruite full
exponare to light and air by fastening back or removing any of the obatructive leaver and ahoots. The bet remedy for a too luxuriant growth is lifting the treen in the early autumn months before the leaves begin to fall; this, if carefally carried out, will not fail to hasten the ripening of the wood, and other conditions being favourable, enaure a crop of fruit the following season. Where these kinds of fruit trees are grown in dry situations or ander broad glass copinge good wateringe at the root muat be afforded ss required, frequantly syringing the trees to keep red-apider in check.

Cherrieg on walls, and pyramide.-Chertie: making a secondary growth mast be kept closely stopped, sach foreright and surplus shoots as may have been allowed to grow, being now shortened to three or four leaven. If the black aphis be remarked, drene the trees with quasia solution or other geod insecticide without delay. See that all whoots for extending the trees are fastened securely, uing as fow ties for the purpose as are consiatent with asfety. Treen on walls that are healthy and atrong and yet refuse to set a crop of fruit although flowering profuagly, whould have a good dressing of chalk or old mortar rubbibh worked into the arface soil and about the roots early in the antamn, and in the apring when in flower. Afford them \& thorough watering followed by a malch. Pyramids and bushes that are making a lot of strong wood ahould be lifted early in September, and the check thus given them will be almost sure to result in speedy fraitfulness.
bueh or pyramid apples.-Pgramid and buin trees should be gone over, and sarplus growth shortened to three or four leaves, taking note of varieties that fruit at the points of the thoota, namely, Corninh Gillillower, Irish Peach, \&cc., which only need the removal of long, gross, or crowded noots. Where summer pruning has been carried out, new growth will be again pushing, and this ahould be pinched back to one leaf. Take advantage of fruit on unnamed or wrongly- ramed trees to determine the variety, and label such securely.

## THIE FLOWER GARDEES.

By Ratcer WADDs, Gardener, Birdeall Garden, York.
humea elegang.-Planta from reed nown in M3y or Jane will now be large enough to prick off into mall pots filled with light, rich, loamy soil. After watering them, place them in a cool, shaded pit or house till well entablithed, and afterwarde afford them abundance of light and air, and a further ahift into 6-inch pota in late September.

THE FLOWER BED8 will need constant attention in the matter of tidiness, and where the plants are too much crowded it will do them good to thin out the shoote nomewhat, so as to admit the air amongot them, farouring the ripening of the wood and preventing lous of leaf. The flowers should be removed from Corantium tomentam; young edgings that are to remain for the winter should be pegged down clowely.
vages and baskets.-Plants in vages and baskete should have daily attention, so as to keep the planta in a presentable condition. Do not rely on the rainfall for moistening the aoil in these receptacier, as it has very little effect, the dense foliage throwing much of it off the soil. Afford the vases one or two thorough watering in a week, according to the ntate of the weather. If the soil is very firm and hard, it should be probed with a pointed atick or piece of iron.

ANNUAL SUNFLOWERS shoald be ataked before they get blown over. A very effective bed of flowers We have seen this reason consiated of tall aingle and double Sunflowers sown in rows about 2 feet apart, then tall double and single annual Poppies sown broadcant over the bed with Shirleg Poppien and various-coloured Nastartium round the edge.
VIOLETS. - In dry localities and light woils, Violetm have suffered mach from the ravagea of redapider, and it will be advisable to remove the leaven that are the most infeated, and to syringe the plants frequently with clean water, top-dreas the beds with nome rich woil, and afford weak liquid manure once a week. Where Violeta are planted on a border on the north side of a wall they are healthy and strong, and the varieties New York and Marie Locine are lowering freely. Some gardeners cat off the runnert of Violets, but 1 let them remain, and ours are pulled to pieces in the spring, and they are not trimmed a/terwards whether grown for flowering in
the winter in framen or oatoide.

PINKB AND CARNATIONS that were atruck in
Jaly will now be ready for potting or planting in
beds, and the sooner this is done after they are rooted the better will be the results, there then
being ample time for them to get established before being ample time for them to get established before
the winter begias. For wintering Curnations and the winter begias. For a 3 inch pot is large enough. In potting, put a few crocks only in the bottom, and a bit of fertilining moss at the bottom over them, and as a potting soil use tarfy loam. Place the plants in a frame, and shade from bright sunshine for one week. When planted out, Caraations should hava deeply dug well-manured groand. Pinks may be planted at 12 inches apart in beds of four rows each; Carnations at 15 or 18 inches.
chrysanthemuma. - Beds of Madame Desgranges and other early autumn-flowering varieties should have liquid manure liberally affurded, and
the plants in the bede do not make a close mass, the plants that are at the aides and therefore exposed to the wind, shonld be secured to stakes. Mach staking in not required, as they look better when growing unrentrained. Large-flowering varieties planted against walls or fences, should have the lateral shoot removed and the bads selected as soon as it is possible to do no. The secaring of these to the fence, \&s., should have careful attention. as the shoots are readily broken by the wind. It is a mistake to tie the shoots close up to the point, it being better to leave 6 or 8 inches from the end loose.

THE KITCHEN GARDEN
By Joier Lambert, Gardenor, Powis Cante, Weishpool.
CELERY.-In most places the earliest and first planted Celery will be fit for being earthed up. The plants should first have all the shortest outside leaves pulled off, and this operation will reveal the hitherto concealed shoota round the atalk, which sinould also be removed. Having done this, gather up the leaf-stalk! firmly and pat a bast tie round them; afford a light dressing of salt and dry soot, and if the weather in dry a good watering, and wait till the plants are quite dry outside before earthing them up. A mall earthing-up will suffice on this occasion.
pOTATOS.-Early varietien geverally will be the better for being lifted, inclading those which have been planted for furnishing planting nets. Change of land is always good for the Potato; and where moderate quantities of sets are purchased, it is generally found necessary the first year to grow them entirely for sets. Potatos intended for sete should be carefully dug up, not braised in any way, and thoroughly dried before they are stored. Before storing lay them thinly in an open ahed exponed to the sun. The Potato store ahould be cool and dey, and quite front-proof.

TOMATO8.-The moiat weather will have cansed much growth of shoots, which mast be entirely removed, and the leadere stopped, the time being not any too long for the ripening of all the fraits now set. It will be as well, in the case of a very robuat foliage, to cut it in half, so as to expone the fruit to the ann. Thin kind of lightening of the leaf-growth should be cautionsly carried oat, or the planta will be injared and greatly checked. I do not remember to have seen Tomatos looking more promining than this year. Water at the roots will not be required unless it be by those which are growing in pote planged in the ground. Keep those well recured to staken that are growing in the open quarter.

PARSLEY.-Continue to tranaplant any young seedlings that are large enough to bandle, and make another aowing. Lot the linea be well thinned out, an operation that is often neglected. Where cold pita can be apared, Parsley may ba pricked out, or Parnley-seed sown in them.

## FRUITS UNDER GLABS

By Riciard Parket, Gardener, Goodwood. Chichester THE POTTING OF gTRAWBEGRY PLANTS.-The potting of the plants required for forcing should be done without delay, and the removal of chowe which have been standing in a shady place since they were potted should be attended to, standing them on a coal-ash bottom in a part of the garden that has exposare to the an all day long. This is a matter of importance, as by their remaining in the made the pots might become water-logged. If the space at command in not sufficient to allow of the pota being stood on a floor of coal-ashen, they may be arranged in a double or ningle row at the sides of the garden patha, if precaution be taken to place
slates or boards for the pots to stand upon. Alwayn afford plenty of room between the planti, wo that the foliage may be properly developed. Strawberry plants shoald not be potted directly after heary rain, as the soil in the pots is then in a saturated condition, and the ramming which is necesary would turn it into a kind of puddle, which when once it is dry might prevent the water pasaing freely through it afterwards. Neither should the potting. soil be too moist, or the result will be the same. If, when water is afforded, it does not pass quickly through the soil of any of the recently-potted plantif always turn the plants out of the pota, and replem them less firmly.

POT VINEs - If the Vines have been gradallly hardened off by affording them plenty of sir, they will now be in a condition for atanding outo of doors in a sunny and sheltered ponition, to thorougbly mature. The pota containing the Vines should be elevated on other pots or on brickbats, \&c., and onl? eaough water should be afforded them to keep the soil fairly moist. Grape-vines that were plasted early in the year, and which bore fruit in May, thonld have the ahoots ahortened to three or four of the principal leaves, in order that the bads may bo matared by anlight and heat. The border mutt not be allowed to become dry, as the roote of them Vines are still in an active condition, and suatenance is very necessary in the later stages of growth.
mid season vines. - When the crop in consumed, all superfluous shoots should be remored as with pot-vinen, so as to give the principal learea fall exposure. Oatside borders that were hesily mulched during the hot weather, will be benefited ioy removing some of the mulch, and lightly digging the remainder into the border. Be carefal not to touch the job if the border is in a wet rate from recent rain.

## PLANTS UNDER GLAS8.

By W. H. Smith, Gardener, West Dean Park, Chichestru.
Winter-flowerina begoniab.-Thene varioul species will require liberal watering at the roote, and occasional applications of liquid manure, motr of them being benefited thereby whilot making gromith. If the late-atruck Begonias are allowed to remsain in the large 60 's they were potted into at firat, they yinl make plants of good size, very asefal for farnibling the dining-table or filling mall vaseen. For the decoration of roome there is nothing which surpate B. Gloire de Sceaux and Gloire de Lorrsine. have had them indoors for aix weeke at a time, asi the plants flowered nearly as well in the rooms sil the atove.

DOUBLE-FLOWERED BEGONIAB.-These platit are eastly propagated at this season if short flowerless shoots be selected. These should have the bottom leaves cat off, the shoots being cut equare across at a joint. Insert them in numbers from five to six in large 60 -pots in light sandy soil ; plece noder hand-lighta, and they will soon make tuben The tabers should be allowed to remain in the pote till the spring. A light dewing should b afforded the cuttings on sunny dayw.

CELOBIAS shoald be potted on at once, afforditer moderate abifts; atand the plants in a light poonin in the atove, and syringe them frequently. Whe the pots are filled with rootn, remove them to cooler and drier place.

VIOLETS FOR GROWING IN FRAMES. - Them plants should be kept clean and the land siinil regularly with the hoe, affording them a top-dramided of dry fresh woot. Remove runners as soon ardin red and should the planta become infested with spider, as they will in light land, thoroughly them by syringing with soap-uudm containing shodi 2 (z. of flowers-of-salphur to the gallon. This be done on two or three nights in the artits taking eare to get beneath the leaver with the out rill

Bouvardias. - Those which are the mator require bat little attention except in and looing the
atopping the growth of the thoots and ground occasionally. Bouvardias cultivated in Tee will require attention in regard to re-potting. this nection close in cold framen after re-pottion uni again well-rooted, when the lights may be withas Bouvardias in potes should be syringed twice aboul and have the shoots regularly stopped unil six weeks before they are required to flower.
BERPIED BOLANUMS IN POT8 will require 8 mel atimalant to growth now that the berries are gromind apace, for this parpose Clay's Fertiliser aprition over the surface of the soil is as good \& masi can be used.


Fig. 37.- pelllostachys nigra. (sre p. 186.)


Fig. 38.-arundinaria japonica = bambusa metael of gardens. (ale p. 186.)

## THE ORCHID HOUSES.

By W. H. Whicr, Orchid Grower, Burford, Dorking.
MILTONIA VEXILLARIA.-Plante of this charming -pecie will now be found in a anfficiently adranced atate of growth to admit of their being repotted; but before this operation is began, it will be advisable to make sure that the plants are free from the little yellow thrip which conceal themelves right down in the interior of the young growth. It is not eavy to eradicate them with a brush or aponge, and being 0 minate many of them escape detection, and much mischief is done before they are detected. The bent method of destroying these insects, and one that taken up the least amonnt of time, in to dip or wah the growth in ome afe insecticide, and afterward rinme them in tepid eoft water. For this parpone I nee nicotine-soap, at the rate of 20 . to 1 gall. of warm water; or, in a mixture, the new XL All liquid insecticide, both of which are effective deatroyer. Atter uaing either preparation I would advise carefal ahading for a few days. M. vexillaria is a plant that forms namerous fibrous roote, which panh their way junt over and under the sarface of the comport; and the plant should, therefore, have larger apace afforded for the root to ramble in than is generally allowed. The pots or pans boald be filled to about three quartere of their depth with clean crock, upon which should be placed a layer of aphagnum-moss: the plante should be well elevated above the rim of the poti, \&cc., as by so doing a greater amonat of surface is afforded the roots to ramble in. Carefully spread the old living roots over the drainage, and work in amonget them a compoat conaisting of clean ephagnum-mose with a small quantity of fibrout peat, and a fair aprinkling of crocke broken mall. Unhealthy plants and thone having but few roots hould have all the decayed part removed, and be thoroughly cleaned in every part, and repotted into pots or pan much smaller than those they have hitherto occupied. After repotting the plante, afford water very sparingly, and use a fine rose watering-can when applying it, just enough being given to entice the sphagnammons to grow. When the new growths commence to freely make roots, and they lay hold of the sides of the pot, water may be gradually increased in quantity. The temperature of the cool-house will nuit them until the nighta become chilly, when they should be removed to the intermediate-house, choosing a position in it whers air is freely admitted at all timen. The late nummer-flowering varietien, M. v. rubella and M. จ. aperba, are in some collections in full bloom, or they are just pasing that stage; thene will not require potting before the beginaing of September, and for the present they should be kept with the older apecien in the Odonto-glomam-house. The beautiful and distinct hybrid M. Bleaiana and ite variety nobilior, which wa obtained by crossing M. vexillaria and M. Roezlii, in now in fall growth. It succeeds best throughout the year in the intermediate-house, where abundant light without wan can be afforded.

THE COOL-HOUSE, -There are several plants in this division which will require to be repotted or surfaced, the more important being the varieties of Maxillarias, which are amongat the mont eanily caltivated of Orchid acceeding well with the Andean Odontoglosanme at all seasont. Such epecies as M. Sanderiana, M. Ameniana, and M. venusta, should be grown in teak-wood baskets, as the flowers frequently appear in a downward direction. Maxillaria Tarneri, M. fucata, M. grandifora, M. Lehmannii, M. lepidota, M. tenaifolia, M. luteo-alba, and M. picta grow well in an ordinary flower-pot or shallow pan, and they should be firmly potted in a compost consiating of three parts of aphagnum-mose to one of peat, mixed with a moderate quantity of mall crock-sherds. Plants of the new Cochliods Noetzlians, Menompinidium sanguineum, M, valcanicum, and many mallgrowing apecies of Oncidiume, may aluo be repotted at noon af growth re-commences. A charming plant now in bloom it the laright orange-searlet Lwlia monophylla. The plant doe beat when hang ap to the roof in a damp shaded part of the intermediatehouse. After the flowers fade, place the planta in the cool-houe to remain there till cold weather set in, when they mast be returned to their former place. Unlike the majority of Lelias, this L. monophylle should be kept fairly moist at the root at all timen. To tho who are fortunate to bave this Lelia in bloom I would advine them to utilime, if pomible, the pollen of each flower for hybriding purposes, at no doubt something diatinct an regarda colour may be obtained from it, which would form a welcome addition to our collection.

## EDITORIAL NOTICES.

Advertisemente should be sent to the PUBLISHER.
Ilustrations.-The Editor will thankfully receive and select photographe or drawings, suitable for reproduction in these pages, of gardens, or of remarkable plants, flowers, trees, tc.; but he cannot be responsibis for loss or injury.
Letters for Publication. - All communications intended for publication, as well as specimens and plants for naming. should be addressed to the Editor, 41, Wellington Strset, Covent Garden, London. Communications should be WRITTEN ON ONE SIDE ONLT OF THE PAPER, sent as early in the week as possible, and duly signed by the writer. If desired, the signature will not be printed, but kent as a guacrantee of good faith. The Editor does not underkapl to paurantee of good jaith. Te to teturn unused comake to pay for any contributions, or to return unused com munications or illustrations, unless by special arrangement

## APPOINTMENTS FOR THE ENSUING WEEK.

mondax, Aug. $19\{$ Felling Floral and Horticultara


Friday, Ave. $23\left\{\begin{array}{c}\text { National } \begin{array}{c}\text { Co-operative, atal Palace. }\end{array} \text { at the } \\ \text { Cry }\end{array}\right.$
8ALE8.
MONDAT, AUG. 19 $\left\{\begin{array}{c}\text { First Special Trade Sale of } 2500 \\ \text { lots of Dutch Bulbs, at Protheroe }\end{array}\right.$ \& Morris' Rooms.
THURSDAY, AUG. $22\left\{\begin{array}{l}\text { Second Special Trade Sale of } 2500 \\ \text { lots of Dntch Bulbs at Prother }\end{array}\right.$ lots of Dntch Bulbs, at Protheroe Rooms.
friday, Aua. $23\left\{\begin{array}{l}\text { Orchids, from Messrs. F. Sander \& } \\ \text { Co., at Protheroe is Morris' } \\ \text { Rooms. }\end{array}\right.$
ORABGTED AVERAGE TEMPRRATURE FOR THE ENSUTWG WEEK, DEDUCED THOM THE OBSREVATIONS OT YORTY-THRER YEARS, AT CHISWICK.-61.

Origin of the Cineraria.

In regard to this subject, we have been favoured with the following communication from the Director of the Royal Gardens, Kew:-"I do not propose to pursue this subject any further. My conclusions, and the grounds upon which they are based, are sufficiently stated elsewhere, and those who are interested in the subjeot may attach what weight to them they think proper. It was never, as far as I am concerned, more than a detail in a general argument.
"There are, however, two points in the article published in your columns for July 27, upon which I should like to make some remark.
"1. It is stated that it was 'a matter of current opinion,' [at that partionlar time], that the Cineraria cruenta cultivated at Kew 'was the wild original of the garden Cineraria.' I do not think that this is the case. The 'ourrent opinion,' as far as I know, was that of the late Mr. Thomas Moore, who regarded the garden Cineraris as of hybrid origin, a view which I myselt commanicated, on his authority, to Mr. Darwin. I re-introduced the wild plant from the Canaries, and it was the observation of the fact that, flowers apart, there was no material morphologioal difference between the wild and the cultivated plant, whioh led the Kew ataff not to re-ventilate the carrent opinion but to revise it.
"2. No practical horticulturist would deny the posaibility of raising hybrids between Cineraria cruenta and other species. We know something about hybrids at Kew, and do not engage in experiments withont a definite objeot in view. The occurrence of actaal hybrids of Cineraria has nothing to do with the matter. If the garden Cineraria is of hybrid origin, the problem to be faced is how is the elimination of all trace of any
but Cineraria cruenta parentage from the vegetative organs to be accounted for? Our solution has the merit of simplioity-there was no other parent.
"It is stated in the article that'seedling plants of Cineraris cruenta differ markedly in appearance from those of a garden Cineraria. It would be interesting to see a record of accurate observations of this. W. T. Thiselton Dyer."

Mr. Freeman Mitford's paper
Hardy
Bamboos. at the Royal Horticultural Society on Tuesday last proved one of the best and most interesting lectures that have been read before the Society. He had a grand subject and a novel one, and he handled it with the ease and knowledge begotten of enthusiasm and experience. It was by no means a compilation or a paper " made to order" or to fit an occasion. It is a matter for regret that it was not illustrated, either by speoimens or by drawings. The Society, as too frequently happens in such cases, missed an opportanity. Nevertheless, when Mr. Freeman Mitford's paper comes to be read in full in the Jounal of the Society, there is no doubt it will give a great impetus to the culture of these graceful and singular plants, and the Bamboo-garden at Kew already furnishes an excellent object-lesson open to the community at large.
We are apt to associate Bamboos with something itropioal, and dimensions too gigantic for an ordinary English garden. Mr. Mitrord's paper will do much to correct this imperfect judgment. Big Bamboos there are, and many of them far too gigantic and much too tender ever to find a place in British gardens, bat Mr. Mitford gave a list of between forty and fifty species and varieties, all of which are of suitable size, some dwarf, and adapted for carpeting the ground beneath trees, and all more or less hardy. Indeed, after a winter which has in many parts of our islands destroyed even the common Gorse, Mr. Mitford is able to say that not one of the species entirely failed. Nothing worse than a severe check has occurred, a check resulting in the formation of a sheaf of small canes, but richly provided with laxuriant foliage.
Mr. Mitford gave some excellent advice as to the necessity for not planting out the Bamboos till they have recovered from the effects of their removal from their native countries or gardens where they have been grown. When received, the roots should be soaked in water for twelve hours, and then potted. They should then be placed in cool-house, and but little water given at first. In February the buds begin to swell, in March the leaves appear. Water should then be afforded freely. In May the pot-plants may be hardened off, and at the end of the month they may be planted out in their permanent quarters, which should be duly sheltered from their deadly enemy-wind. In handling the plants the greatest care should be taken not to injure the roots, nor the points of the shoots, which are very brittle. They should not be trodden in, but the roots well watered-in so as to enable them to get firm hold of the soil without risk of breakage. The soil should previously have been well double-dug. By preference it should be a rich loam, and the plants mulched with cow-manure. Wire netting may be provided to ward off the attacks of rabbits or pheasants. A little fern or bracken thrown over the stools in winter might be advisable. We need not follow Mr. Mitfond in his enumeration of the species, but refer the reader to Mr. Bean's classification of hardy Bamboos, given in our volume
for 1894 (March), where the species cultivated at Kew and elsewhere are enumerated and described, with illustrative cuts, some of which we now reproduce as opportune to the occasion. Arandinaria nitida, fig. 33 , one of the loveliest and hardiest, to quote Mr. Mitford, was formerly called A. khasyana, under the erroneousimpression that it was a native of the Khasya mountains, a hot steamy region not likely to afford many plants hardy enough to withstand our climate. The species, it appears, is really a native of the Chinese province of Szchuen, a very different climatal region.

This instance, among many more, shows the great advantage that accrues from the association of Botanical research and practioal caltivation. The culture of those plants, as in the oase of Orchids, will lead to an immense advance in our knowledge of the plants, and to the gradual establishment of a correot nomenclature, and at the same time the information gleaned as to the native countries of the plants will afford most useful hints to the cultivator.
Incidentally, we may mention a ourious $00-$ relation alluded to, with becoming cantion, by Mr. Mrtford, and that is the circumstance that all, or almost all, the species known to be hardy have the smaller veins in the leaves arranged in small but conspiouous squares, the venation being, as it is oalled, tessellate. Mr. Mitford's paper was instructive and saggestive to a high degree, but as it will doubtless be printed in full in the Journal of the Society, we need now only counsel those of our readers interested in the sabjeot to look forward to a future issue of the Journal. In the meanwhile we may refer them to Mr. Bean's Monograph already alluded to, and to Mr. Mitford's own commanioations to the Garden, and to our own columns.

At the conclusion of the leoture, some remarks were made by the chairman, Sir ALexandir Arbuthnot, and by Sir John Leewelin. Dr. Mastras mentioned that A. japonica, better known as B. Metake, Hort., thrives well in one of the densest and most insalubrious London suburbs, and even ander the shade of nome old Lime trees, where little or nothing can be induoed to grow.

Mr. Barron's Retirement. - We are requented to give pablicity to the following commanication:"In connection with the retirement of Mr. A. F. Babron from hit office of Superintendent of the Royal Horticultaral Society's garden at Chiswick, we understand that the Council have remolved to make him an allowance which is practically a retiring penaion of $£ 180$ a year. J. W

Gardeners' Royal Benevolent institu-TION.-On Wednenday lat, through the kindness of A. Mordan, Euq., a garden party was held in tho grounds of Stone House, Reigate, for the benefit of the Gardenern' Royal Benevolent Inetitution. The weather being exceedingly fine, the ground were viaited by over 1000 personn. Amongst thow preaent were Lady Jenning and party, Mra. Simpon and family, the Minses Baxter, Mr. and Mrs. Mordant Mrs. Lawder Eaton, Min Mordan, Mr. R. E. Wath Mr. Davidson, \&c. In the evening, the ground were beautifully lighted by fairy lampe and Chises lanterne, especially the verandah, which was ver! effectively illuminated. The whole of the ground and greenhouses were thrown open for the inapection of the visitore, many of whom were heard to semery on the almirable way in which the gronada wert kept by the head gardener (Mr. G. Steer), who, il should be mentioned, ably carried out the groer arrangements for the gathering. Dancing By carried on in the evening with much vigouf. this effort, the funde of the Inatitution will be best fited by more than $£ 12$.


Arundinaria Simoni.-Mr. Prinwill, of Probas, obligingly sends un flowers of the variegated form of this species. A. Fortunei is also in bloom in his garden.

A Nurberyman as J.P.-Mr.Garlies Mitchelle, nurseryman, Stranraer, has been appointed a J.P. for the county of Wigtownshire. He has acted as chairman of the parochial board for twenty-five years, chairman of the School Board of the Burgh, chairman of the governora of the High School, and chairman of the Parish Conncil. For forty years he has conducted an extensive wholesale and retail nursery buaineas, and may be said to be the father of the nursery trade in Scotland. Daring a busy life Mr. Mitchell has collected one of, if not quite the largest, libraries in the south of Scotland. The finest editions and copies of hintory, poetry, science, politics, and general literatare, ancient and modern, many rare and curious works, numerons collections of beautifully illuatrated and rare works of the finest apecimens of the bent artiste, only to be found in a few hands.

Missouri botanical garden.-A copy of the sixth Annual Report has reached us. The garden, it will be remembered, was founded at St. Louis, in accordance with the will of the late Mr. Shaw, a merchant of English extraction, and the friend of Engelmank, Asa Gray, and other botaniets of his time. Prof. Tralease is now the Difector. Among other regalations is one for the taition and training of garden papils. Two have completed their carricalum of four yeare, and received appointmente as Caratorn of Botanic Gardenn. The anbjects taught have all direct reference to gardening, and are taught practically. The whole of the first year is devoted to manual labour, and half of each day through the remainder of the course. The acientific papers in the prenent volume include monographs or esaays on N. American Sagittarias by J. G. Sxiti ; on Leitneris floribunda, by Dr. Trevease; on the disemination of Yucea, by H. J. Webser; on the Mound flora of Atchimon County, Missouri, \&c.

Experimental plant Physiology.-Mr. D. T. Macdoteal has translated the little manual of Physiology prepared by Dr. Waller Oels. It consiste of directions for the performance by the pupil of more than a handred experiments by meana of which the principal phenomena of nutrition, geotropism, growth, movements, pollination, \&c., are illustrated. The papil is not merely to sit and take notes of a lecture, nor to read a book, but to work out for himself as far as circumstances permit the details of physiology. Such a course of training woald be of immenee value to young gardeners, and in these days of county laboratories is not altogether unattainable. Lectarers will find this little volume very usefal. It may be had from Morats \& Wrison, Minneapolis, or from Williavs \& Norgate, Henrietta Street, Covent Garden, W.C.

Petit Atlaa de poche des Championons Comestibles et Veneneux" (Eatable and Poisonous Fungi), par Paul Donrér (Paris, Libraire des Sciences Natarellen, Pauc Klisckssicik, 52, Rue den Ecoles). This little hand or pocket volume is the third of a seriez devoted to natural history, and intended to sccompany a collector in his walks as well as to be ureful for reference in the atudy. The book before us contains description by which many of the commoner fangi may be recognived one from the other. Some brief information concerning microben and microncopic fangi which are more or leas intimately connected with certain diseasen, are aleo mentioned. There are thirty-aix coloured figure of fangi ineluded in this work, contributed by M. Hesas Giulet. The zection relating to the micro-fungi is too brief to be of mach service. The other portion of the volume may be commended to the notice of beginners. The figurem are good, but contain no details
conceraing the aporea.

Flowers in Seabon.- We have received from the nurwery of Measrm. Lanivg \& Mave received from flowern of varieties of the Carnation, cut from plants
in the open ground, which are everything that thoue who admire this fragrant flower could wish, although that not eanily pleased permon, the Carnation fancier, would, we imagine, not think they were all up to show form. Of eapecial good quality were Dandas, scarlet ; Mra. Reynold Hole, orange-fawn; Uriah Pike, dark carnation-red; William Wood, deep rose; Ketton Rose, and Dachenn of Fife, old ronepink in both canes; and Paul Engelheart.

Proposed Park for Hampstead. - We learn from the Journal of Horticulture that a movement has been started by a number of influential residents in Hampatead to secure the entate of the late General Fraser as a park and recreation ground. The proposed park is situated by Finchley Road and Weat End Lane, and has an area of 13 acres. The grounds are finely laid out, and abound with flower-beds and winding paths.

The Tomato Trade.-According to the West Kent Advertiser of July 27, Mr. Jonn WOOD, of Crockenhill, has been sending away nightly to the London and morthern markets between 300 and 400 peck of the fineat kinds of Tomatos.

Stock-taking: July.-The holiday laat week interfered with the pablication of the Trade and Navigation Returns for the past month, so as to prevent the isune of our aummary antil to-day. The following is our asual excerpt from the "summary" table of Importa for the month of Joly:-

| Imporis. | 1894. | 1895. | Difference. |
| :---: | :---: | :---: | :---: |
| Total value of imports | $\stackrel{\stackrel{£}{8}}{31,835,553}$ | $\underset{35,128,142}{\mathscr{E}}$ | $\begin{gathered} \text { L } \\ +3,292,589 \end{gathered}$ |
| $\begin{aligned} & \text { (A.) Articles of food } \\ & \text { and drink - duty } \\ & \text { free ... ... ... } \end{aligned}$ | 12,267,448 | 13,050,26 2 | +782,814 |
| (B.) Articles of food and drink-dutiable | 2,028,190 | 1,965,098 | -57,097 |
| Rsw materials for textile mannfac tures.... | 2,772,042 | 3,530,191 | +758,149 |
| Raw materials for sundry industries and manufactures ... | 4,063,688 | 4,829,385 | + 7055,717 |
| (A.) Miscellaneous articles ... ... | 1,076,218 | 1,103,739 | +27.521 |
| (B.) Parcel Post ... | 49,602 | 78,664 | +30,062 |

This shows a satisfactory state of things, as compared with laat year, though it should not be forgotten that there was one more working day in the past month than in the wame term last year. Animals, food and drink, textile materialn, timber, oren of copper, \&c., all show an increase - Wheat being in exces by over three - quartera of a million sterling. Rasoia showing a heavy increase, and America a heavy decrease, bat sending an increaued sappiy of Cotton. "Manufactured articlen" are an increaned quantity, chiefly in ailk and cotton goods. Altogether, with a total import of $£ 35,128,142$ there in thown a gain of $£ 3,292,589$-or rather better than 10 per cent. The annexed figures se to the importa of fruitr, \&c., are, as unual, very intereating:-

| Imporis. | 1894. | 1895. | Difference. |
| :---: | :---: | :---: | :---: |
| Eraits, raw :- |  |  |  |
| Apples env .wbueh. | 55,283 | 57.988 | $+2,600$ |
| Cherries | 90,47 | 60,047 | -33,870 |
| Plume | 105,184 | 59,010 | -108,094 |
| Pears | 154,082 | 33.903 | -117.176 |
| Grapes | 6,500 | 45,238 | +38.738 |
| Unenameratpd | 301,771 | 342,194 | -40,423 |
| Onions | 283,283 | 387.042 | +81,656 |
| Potatos .a* we. cwt. | 570,773 | 503, 882 | , 65 |
| Vegetablee, гaw, uneuumerated ove o. value | $158.178$ | $\stackrel{\perp}{204,059}$ | $\begin{gathered} e \\ +47,887 \end{gathered}$ |

Thene figures and the record an to imports convince us that time and circumstance are not inopportune in which to recall attention to the matter of light railway as emisently saited to the requirements of market gardeners and others. When railway chargen were exciting so much attention in this column, we drew attention to the advinability of making cheap lines of commanication between field, orchard, and
marketr, extending the area over which the producer could spread his wares-to his own profit a well as to that of the consumer. It would appear that our Consular and other officials on the Continent were solicited by the commercial directorate of the Board of Trade to farnish such details as they could lay hands on bearing apon the subject; this was done, and the resalting reports were hand ed to the committee inquiring into the canses of the depression in a gricalture. Now that the com. mittee have overhauled the aupply of information, the reports have been pablished, and we now learn that in the little kingd om of Belgium there are seventyfive lines, extending over 836 milen, six belonging to private companies, the remainder to the National Society of Local Railways. It is interesting to learn that their dividend have been steadily increaning. Agricultural products have benefited by the eatablishment of the lines of communication, the mont remarkable feature being the culture of Beetroot, which has received a very noticeable impetas ; and has in its turn given rise to the establishment of many sugar factories. In Prussia the light railways are thirty-seven in number, extending to some 480 miles ; the German Government anys of them that in general they appear to be well adapted to the development and improvement of agricultare, forestry, and their accessories, particularly to opening up new markets, and facilitating the carriage to and fro of manure and raw produce over a considerable area of country. Surely, enough has been given hare to prove the case for the abject under notice. In the matter of

## Exports.

An excellent report has to be made ; not in any article has a decrease to be noted-the column is is blank In the month of Jaly the exporta footed up $£ 20,559,486$, being an increase of $£ 2,160,950$ orer July, 1894. More than that, there is an increasa to note in the seven months' comparison of $£ 1,394,991$. Nearly $£ 800,000$ of the month's increase is due to American businens alone; and if the currency diffcalties over there can be settled, there is no reanon why a return of confidence all over the Union should not till further awell the tide of trade enterprise. There is no necessity to specify increases with an all-round rise, and there can be little doabt that home trade generally will expand, and handreds of thourand be qualified to judge of the purchaing powers of money!
"Journal of the Kew Guild."-We have already alladed to the recent pablication of the number for May, 1895, and may now give some indication of its contents. It opens with a portrait and brief memoir of Sir William Hoorke, the firt Director. What he did, how great was his courtely, and how potent his aid to young gardeners and atudents, is held in grateful remembrance by the older generation, and it is well that the new comern should be made acquainted with the facta aleo. The main purpoae of the guild, that of linking the Kew gardenern of the past with those of the present, seems to have been well accomplinhed, and no doabt the circulation of the present number will still farther promote that co-operation and good fellowahip which are so denirable. The items of Kew newa have mostly been pablished aiready in the gardening papern, but it is very uneful to have them collected in so convenient a form. The notes from far of members in all quarteri of the globe are mont interesting, and conatitute a feature which we would fain hope may be mach extended. Some notices of old Kewites who have paseed away will be of intereat to many who atill hold their memory dear. There are some omintions which will probably be made good in subsequent issuen. The list of old Kew rem will prove very werviceable. We congratulate the promotern on the progresu of the guild, and mot heartily wish it all attainable succens.

Cattleya Mossie, Linden's ChampionWe owe to the kindnera of M. Lucien Lindes the receipt of a fine illostration of a bearififal form of C. labiata var. Mossim, called Linden's Champiofs The bold undalate petals, the lip with a crimon
blotch edged with a white frill, and the throat straked with gold and parple, confer an air of great diatinction on this plant. It in one of many varieties, more than forty of which have been deemed worthy of being aeparately named.

The British Pteridological Society.-The annual meeting of this Society took place at Kendal,
them a splendid conflient form of Lastrea mone tana found by Mr. Whitwell, which ander auccessfal culture had far sarpansed the expectations of its discoverer, since when found it was merely caudate. A paper on "Fern Raproduction," by Mr. Cearles T. Droery, F.L.S., formed the basis of an animated discussion, dealing as it did with all the latest diacoveries in this direction, some of which were quite new to the


Fig. 40.-phyllestachos hathisaçd. (see p 186.)


Fig. 41.-bambusa tessellata. (sme p. 186.)
on Monday, Auguet 5, Bank Holiday, and notwithstanding the unpromining weather conditions, was very well attended. A number of very interesting new finda;"were exhibited by Mr. R. Lloyd Prarger, of Belfast, who read a most intereating paper relating to them and to the Irinh hunting-grounds from which they had emanated, and in which so many clove parallela have been found by him, and Mr. W. H. Pericips of name city, to nome of the rarent English forms. Mr. Sminims alwo thowed a number of finde, mong
members generally. A number of new members were enrolled, and the Society is in a flouriahing condition, and deservedly so, since, thank to the effort of a coterio of true Fern lovert, mainly revident in the locality, a contre has been formed to which, once a jear at least, the aincere admirers of our British Fern may gravitate, exhibit their find, exchange views, and in a practical fanhion determine by the general experience of the members, the rexed quention of nomevclature.

On the Tuesday, an ususl, a Fern-hunting expedition was organised to Clawthorpe Fells, where Mr. Whatwell, the keen-eyed secretary, dincovered a batch of attenuate Lastrea montana on the limestone formation, thus not merely bagging a good thing, but at the same time exploding the generally accepted theory that this pecie abhor lime, a fallacy the writer also diacovered last year on the limeatone at Carnforth, where the pecie grown abundantly and rankly in the very pockets of the outcrop.

Cornell University.-The following it the programme of the couree of Horticulture given at this Univernity:-

1. Evolution of Cultivated Plants.-Fall, i.e., autamn. Three days week. A dicussion of the carrent hypotheses of organic evolation as applied to the modification of plants, particularly of thone in cultivation. Open to students in all cournes who have taken courses 1 and 2 in Botany. Lecturen. Profestor Bailey.
[2 Landscape Gardening. -- Fall. Two day a week. A consideration of the priaciples of athetice an applied to natural scenery, with a critique of garden art. Given to students in agricultare, architecture, and otherm. Lecturem. Profensor Bailey.]

This coarse will not be given in 1895-6.
3. The Literature of Horticulture.-Fall. One day a week. A seminary in the literature of the cultivation of plante in various parts of the world, with reviews of periodical literature. Profesmor Barley and Mr. Lodeman.
4. Greenhouse Construction and Management. Fall. Two hours; one hour of lectures, and one of laboratory work once a week, by appointment. Profenor Bailey and Mr. Lodeman.
5. The Botany of Cultivated Plants. - Winter. Seminary course of one hour, by appointment. Profemar Bailey.
6. Pomology. - Winter. Three daya a week. Lectures and other class exercisen upon the cultivation of fruita. Profesmor Batcer and Mr. Lodrmans.
7. Propagation of Plants.-Winter. Two hours, by appointment, A practical lsboratory course in the multiplication of plante - grafting, budding, making cuttings, pollination, \&c. Mr. Lomman.
8. Olerisulture, or Vegetable Gardening. Spring. Two days a week. Lectures. Profenior Barnzy and Mr. Lodeman.
9. Bloricu'ture -Spring. Three hours. Lectares. Two days a week. One hour of laboratory work by appointment. Profesior Bailey and Mr. Lodmian.
10. The Theory and Practice of Spraying Plants. Spring. One hoar coarwe. Lecture and demonstrations. By appointment. Mr. Lodexan.
11. Handicraft.-Practical work in the forcing houses and gardens, with familiar talk. Throughout the year. One to three hoarp, by appointment. Profenior Bailey and Mr. Lodrman.
12. Investigation Incident to Previous Courses. For graduate and advanced atudente. Throughout the year. Hours by appointment. Prof. Barlex.

Apple Culture.-Professor Bailey sum up a report on the orchards of New York State, by the terse direction"Till,

## Feed,

Prane,

## PLANT PORTRAITS.

 celtura, Jaly

CATTLETA MOesle AMCEA, Lindenta, t. CDLXX.
 Godefroyse and O. callomm, Garde
vol. tvil. p. 228 ; Lindenia, t. CDlxik.
Lrcheis Hasgeana, L. CHacenonta, Buld. Soc. Toncan. LTCRNIS HAAGEANA, L.
di Orticutura, Jaly, 1895.
 MasDEV
t. CDLXXI
O. CDLXTI
 Odontoglossum pulcaellux majus, Lindenia,
CDLxum.
Schomburgha mosel, Linden, Lindenia, t. CDlxxy.
Schomburgia nose i, Linden, Lindemia, t. CDLXXV.
STAUROPSIS GYGANTEA, Bentham (Vanla gigatea, Lindley)


## GIANT CACTI AT KEW.

Some interesting addition have recently been made to the collection of Cacti caltivated at Kew, a consignment of big pecimens having been obtained from Arizona with the assiatance of Prof. J. W. Toumey, of the University of that Siate. The illustration (Gg. 39. p. 187), represents the most atriking of the apecimem, which are arranged in a group in the middle of houre No.5. The two tallent stems are of Cereus giganters, the most colossal of all Cacti, a it sometimes attains a height of 60 ft . In 1890 a fioe stem of this apecies ras obtained for Kew from California, its beight being 15 feet, and it weight nearly half a ton. It flowered in 1891, and a figure of it was pablished in the Botanical Magazine, t. 7222 . The new stems of this Cereas are 9 feet higb, and each weighs about 4 cwt . The two large specimens arranged in the corners of the group are fine examples of Echinocactus Wislizeni, each weighing 4 cwt , and measuring 6 feet in height, sad 3 by 2 feet in diameter. The deep ridges are clothed with tufts of stout pines, of which the central one is 3 inches long, hooked at the tip, and hard and rigid as bone. There are maller apecimens at K 9 w which, although they have been in the collection ten year, have not grown an inch in height, from which it may be reasoned that these large examples are probably hundred of year old. Flowers are only developed on large plants; they are about 2 inches long and wide, and are ancceeded by cone-shaped fruit 3 inches long, filled with mall black Onionlike seeds. The jaice of the stems is said to serve as a a ubutitute for water when the latter is ncarce, and inatances have been known among the white trappern, where the lives of men have been aaved by this'plant. The atema are also used by the Indians as boilers, the fleshy inaide being scooped out, and the tough akin is filled with vegetables and water, and placed on the fire. As there in a plentifal appply of etam in the denert regions where this is practised, the Indiana do not trouble to carry thin
"boiler "about with them, but make a fresh one at each atage of their journeyinga.
A atill larger apecie than this is E. Vinnaga, of which a very fine example was obtained for Kew years ago. Shortly after its arrival, it was described and figured by Sir William Hooker in the Illustrated London News. It was 9 feet high, and a yard in diameter, it weight being aboat a ton. It lived only a year or two, very large stems of Cacti being evidently bad to tranaport and re-establish, even in gardens near where they grow wild.
Opuntis arboreacens, the Elk-horn Cactus, in represented in the group by two pecimens, one on each aide of the elegant Sedge-like Reatio aubverticillatus in the centre. This Cactus grows to a height of about 30 feet, branches freely, the main branches bearing numeroas cylindrical branchlets, remarkable for their oblong tuberclen and tuft of long needlelike spinem, each enclosed in a loose thin strawcoloured sheath. The skeletons of this Opantia, as seen in the deaert place where it in wild, have a ungular and startling appearance, being quite devoid of leaven, tpines, sad flesh, the white ligneous layerw forming a hollow eylinder perforated with mesh-like holes. Then skeletons are said to stand many yearn. There are example in the museum at Kew, and aluo apeciment of walking-atick made from the stems of this species. Opantis fulgida, another arborescent specie with numerou branchen and drooping cylindrical red-tinged branchlett, bearing short opines, il represented by two fine precimens.

Other intereating precien ineluded in this group are mall atems of the new Cereus Pringlei, a near ally of C. giganteas, and Opuntia arbuncula, with ulender twiggy branches, not more than half an inch in diameter, bearing thin tharp spines an inch long.

The large boulder-like object in front of the picture in an exceptionally fine apecimen of Hottentot's Bread, Tentudinaria elephantipen, which wat imported from Natal for the Colonial and Indian Exhibition, and afterward came to $\mathrm{K} \cdot \mathrm{ow}^{\mathrm{w}}$. The col-
lection of Cacti now at Kew is richer in upecies than it ever was, and considering the large size of t'e hones in which they are grown they are in good health. John Smith recorde that in 1839 a number of plants of Cereas senilis were introdaced by a trader and sold at six guineas each. What a different tory Mr . Sander of St . Albans can tell, for he sent twents nice plants of this same Cactas to the anction rooms last week, and could not get a bid for one of them; they were afterwarda bought to be dittributed from Kew at the absard price of 28 . each. A dezen plante of the recently-certifcated Echinocactus anreas were bought at the same price. The newly- formed Cactas Society may in time work ap an interest in Cacti smong Eaglish horticalturits-they are certainly ord of favour now. W. W.

## KEW NOTES.

Deodar Stbuci by Lightning at Kew.-Oje of the finest Deodars at Kgw, between the Palm-house and the temperate-house, was struck by lightning on Saturday evening last. The trunk is riven into large fragments, showing that the diaruptive force must have been enormons.

## Begonias at Kew.

After the heavy atorm of Saturday last, and the drenching showers which have occarred since, it is pleasing to notice that the beanty of the amall beds of Tuberous Begonias near the Show-house, No. 4, is not at all impaired. Oae bed consists of Taberous Begonias of mized colours, pink and white predominating. This is a very beantifal bed. Equally good are the beds of B. semperflorens rosea, B. Crimson Gem, and B. Wosthiana.

## Hunnemannia fumabiffolia.

This is one of the gayent plante in the Kew rockery just now. It is an Eschacholzia-like plant, but growing to 18 inchen or 2 feet in height, with glaucous very deeply divided leaves, and large capshaped canary-yellow flowers. It is a native of Mexico. In a wheltered situation it would form a fine plant for a bed, bat as we learn from Mr. Irvine, it is not quite robust enough to atand fall exponare to wind and rain.

## Solanom Wendlandi.

It is very remarkable how slow is the diffation in gardeas of fine plante when they do not happen to be sent out by the trade. For several years now the magnificent creeper above named has been grown at Kew, both in the Succulent-house and in the Water-Lily house. Thousands upon thousands must have admired its ample paniclen of large bluikh-violet flowers, which remain in beanty for many weeks, and yet we cannot call to mind ever having een it in a private entablishment. It was figured in our column. September 16, 1893, bat the flowers are often larger than those there hown.

## Home Correspondenoe.

DUKE OF YORK TOMATO.-I grew a few plants of this novelty last year, and have grown some this year. It is a handeme, brilliant-coloured frait, and if it have a fault, it is that it grows too large. I do not know another variety which produce such an even lot of fruit. $R . P$. Brotherston.

TABLE DECORATIONS WITH CUT FLOWER8, ETC.-Mr. F. W. Seale's atrictares in your last issue, with reference to the floral arrangement of dinner tables, seem to me very just. It often happen that insufficient room is left for the dearert and candelabra; thewe should be the firat consideration-sthe floral decorations ought to be quite sabordiaste. Most of the dinner-table arrangements I have meen at shown would drive the lady of the house and the batler to depair. The beat jadgen of table foral decorations are ladien, with a butler as assistant.
T. M. Bulkeley-Owen.

Mr. F. W. Seale's remarks on the jadging of table decoration at flower thows in the Gardeners' Chronicle of August 10, P. 160, are to
the point, and I hope that the suhject will be well threshed out, as there is, to my mind, no part of horticultural exhibitions so unsatisfactorily judged as table decorations. Over and over again, I have seen prizes awarded to clumsy overcrowded arrangements which had nothing to recommend them bat the quality of the flowers used, while taste and pleasing arrangements were passed over. I am quito ready to believe that the jadges in these casen wibl to be just, but I agree with Mr. Seale when he vara "they are totally unfit to jadge where taate and refuement are required," and I do think that in justice to all exhibitors, tbe greatest care should be taken to select judges who have proved themselves capable of judging of the qualifications. If we are to attain a high standard of excellence in thit beartiful work, the silful and artiatic decorator mut not be driven out of the competition. $F_{0}$ Potter, St. Clere Gardens, Kemsing, Sevenoaks.

TOMATO8. - Tomato-growing in the North. appear to be greatly on the increase, not in marketgardens only, but in many private establishmenta, The fruits are used as freely as any other culinary vegetable, and many of the working.clanses now value them as a usefal and palatable food-adjuncto The price of the frait from this cause is well maintained, and is not likely to auffer mach for some time to come, the foreign supplies, in northern town at least, not having increased proportionately to the demand. I have noticed that in the markets fineo looking fruit command a very high price compared with irregular fruit of amaller size. A good bright colour is readily noticed by parchasers. In gardent generally there are varietie which find favour, and grown year after year, caltivators making their own selections, and by sach means the quality is improved. Austen's Eclipse and Thomson' Excelnior have atood the teat as well as most in Scottion gardens, but among numerout triala given of varieties, Frogmore Selected takes a prominent position It did well in this garden for early supplien, that is, from the and of April onward, and it is now in good condition as a late fruiter. The earlient fruits were ob:ained by we from Acquisition, a free-bearing variety of sturdy habit, good for pot-culture. Pro eident Garfield is very large; bat it is coarse in the flesh, and not of handeome shape. In cool-houres, where Peaches, Figy, \&cc, are grown, I obtain ine crop of Tomato from plants which are potted in rich soil, and allowed to root through the pots jato fine loam. The pot are 7 -inch, with holes in bottom made large enough to allow the roots to get outside, and half planged. Few laterals ase formed, the cluaters of frait are close, and they are large and firm. M. T., Carron, Stirlingshire.

8lugs descending (see Gardeners' Chronicla, August 10, p. 160).-The following correspondence will, I think, be interesting, especially as Darwin' letter is characteristic of his modesty, courtesy, and patient attention to detail: -

Chas. Darmin, Eqq, Fir s., \&c.
Sir,-I have observed that the small white slug has acquired the power of desceading head foremost by means al a thread of slime from branch or leaf of the Vines in a hion house here. One that I showed to a medical friend lowered itself from the moist end of a stick to a depth of 1 foot, and upon the leaf which was used to entice it being remored, the slug turned in the air and climbed up the thread of slime. It appears to have the power of exuding the slime and of twisto ing it into a thread as it descends. I shall be happy to forward one of these slugs if the subject be of sufficient interest to you. I am, Sir. Yours, \&ce, W. Ro, Sept 6, 1891."

Down, Beckenham, Sept. 7, 1861.
Dear Sir,-I thank you for your kindness in having written to me. My memory is not so good as it was. but am nearly sure that I have read of aluge descending in the man ner described, but not of their having ascended. I amm $\$ 0$ much occupied with another subject that I will not aceept your oblig ing offer of zending mee living specimens. It is just possible that the alvg may be a foreign species introdaced with plants in your hot-house. I think that it would be wort while for you to repeat carefully your observations, with measure ments of height of ascent and descent, and then cend an account (saying that you were not sure whether the fact tvas known) to Nature pablished by Macmillan \& Co., Strand -With my thanks, I remain, dear sir, yours faithfully,

Ce. Darmin.
I found on further experiment and observation that the small white alugs, meanuring from 1 to $\frac{1}{3}$ isch in length, descended more than 3 feet from the Vines in preference to crawling down their youg tems, but that they could only ascend a few incherly in a moist and warm vinery, when by repeately touching their heads they were compelled to climid up their own bodies to the thread by which they bio been deacending. The death of Mr. Darwin term I nated my interest in the matter for a time,
have not hitherto pablished the resalt of my observations. The mall white slag may be found in many gardens, and is, I think, a native of this country. W. R., Streatham Hill.

In reply to De B. Crawwhay, Eiq. (vee Gardeners' Chronicle, Auguat 10), I am awaice that it is an expedient olugs often adopt when circumstances require it. I have seen them in the act many a time, especially amongat corn-stacks at harrest-time. For instance, the last load of Wheat taken up after the dew has settled on the straw late in the evening may remain on the waggon all night, and should the atabble be somewhat grasay, and aluga abundant, many of them would be located at the butt-end of the sheaver; this end would be placed outward on the waggon or on the stack, and in either case would soon get dry. The slugs which happen to be there find the sarrounding ancongenial, and at once deacend to the ground by means of a line made of alime. What a troable the es slimy crestures cause to the growers of Orchids I well know, for they can with their alime make a pathway over almost any firm surface, aa well as deacend through apace, in wearch of a dainty morsel off an Orchid, or a hiding-place. E. Blandford, Moor Hill, Westend, Southampton.

## In reference to Mr. De B. Crawthay's atate-

 ment in your last issue regarding sluga descending on plants by a line of slime, may I be alluwed to mention the fact that I have seen aluge descend that way on two different occasion, once at the Moat Narseries, East Grinstead, and once at Holmwood Park, Dorking. At the first-mentioned place, the slug deacended on to a Primula, and in the other on to a Cineraria. The alugs descended from 3 to 4 feet to get at thene plants. Foreman, Holme Grange Gardens, Wokingham, Berks.gluas And wormb.-In your laat isuae I notice $\mathrm{Mr}_{\text {r }}$ Crawshay has an article on sluga descending by their own slime. I believe that I was the first to draw attention to this fact in your own paper, as Mr. Crawshay sayn no notice was taken at the time. I see aloo a note on worms in lawns. I have no wormcasta here. I have been conversant with gardens for many years ( $I$ shall be on September 10 next, eighty years of age), both in England and the Continent. At my latt residence, Broomfield, near Chelmoford, and apparently somewhat similar soil, the roller had to be frequently cleaned. I attribute this to an earth slug which lives undergrornd. I saw one dug ap out of a flower-bed in the lawn with a small worm in itn mouth. Dig where my men will, it it very rare to find a worm here. I should like to know if any one of your numerous readers have ever seen an earth alug, or have a garden lawn free from worm-casts. The slugs are largish, white in colour, and have horna. Robert Warner.

CARNATIONB. - I was much interested in reading the account at p. 138 of the Bookham Carnations, where, if anywhere, they are certain to be aeen in good form. Readern in general will be pleased to know that they are equally aatisfactory when grown along with the maltitude of other things that every day engrose the attention of the ordinary gardener, and that they are al well fitted for ont-of-door calture as for growing in pets. Though all the sorts named in the report in question are meritorions in a high degree, there are some of cach outatanding merit that one can hardly conceive of a garden in which mweet Carnations find no honoured place, or being long without tome of them. In my opinion the mont charming of all is that named George Cruikhank. This variety ha not one bad quality, unless it be its too persistent habit of fowering. On that account I had the greatest difficulty lat year in getting any atock of it, almont every growth pindling and forming flowering atem: which yielded till late in autuma flowers of the higheat quality. No doubt hr. Donglas will remember examples I forwarded him lant October being as tine as one could expect two month earlier. The Dey, which is not mentioned in your report, is almost an attractive; as Hamow flower it ia, perhapa, better, Mre. Eric Hambro, again, I should nay, il the ideal white for how purposes; it is far superior to Nipheton, and the plant of trong and vigorous growth. I like Sadek very much, but when bloomed under glaan, it lacks the rich glowing tint that the flower asumes when planted in the open garden. The plant in of perfect upright habit, with the floweri atanding boldy up. Braw Lasi I have not jet grown. With regard to Cowslip I have not found it late in flowering. I honld term it a mid-reanon mort, not nearly
so late as Germania, nor yet so early an Harlequin. open. This, with Harlequin, is an indiapensable garden plant. The latter is wonderfully attractive, and the plant vigorous though dwarf of habit, and very floriferous. Henry Irving has alao given much satiofaction. It is the darkent of all crimson worts, and the bloom of exquisite shape and quite distiact in form from all others. Of the new yellow Carnation, the beat of all for the open border is undoabtedly Corannas it is by far the most free-blooming of all Carnations. It also possessen the merit of being one of the earliest to flower; and though in some respecta inferior to Germania, it is of greater value as a garden plant. Miss A. Campbell is almo wonderfally fine, and some will no doabt give it the preference. Dake of Orleans, with the dietinct hint of gold in its exormous blooms, in perhaps best saited for indoor caltare. R. P. Brotherston, T,

## SOcieties.

## ROYAL HORTICOLTURAL.

Avaust 13.-The meeting of the Society at the Drill Hall, Jamea Street, Weatminster, on Tuesday last, was the occasion of an interesting and beatiful display of hardy flowert in season, including large quantities of Dahlias, Liliea, Gladiolun, Gaillardiar, \&c., and of Orchids. A variety of fruit made its appearance; and we were glad to notice an absence of thone enormons trade exhibits so common in recent years, and which aerve no nsefal pablic parpose.

## Floral Committee.

Present: W. Marahall, Euq, in the chair; and Measra. J. Fraser, J. Laing, C. T. Druery, H. B. May, H. Herbst, R. Dean, G. Stevens, J. H. Fitt, R. B. Lowe, C. J. Salter, W. Bain, C. Blick, H. J. Jonen, J. D. Pawle, C. E. Soea, J. Walker, J. T. Bennett Poë, H. Turner, and H. H. D'Ombrain.
From the famous. Fern nursery in Dyson's Lane, Upper
 Ferns that was rich in varieties of Pteris, Asplenium, Adian
tum, Nephrolepis, Davallia, Platycerrum, Acrostichum, \&c of Pteris we remarked P. cretica Wimsettii, P. serrulata gloriosa, and $P$. Beaurita argentea. Of Adiantams, 4. cuneatum variegatum. A. plumosum, and many others. the fine-looking Nephrolepis davallioides furcans, Aaplenium Baptisti, and another much resembling it, but unnamed; A. marginatum, with bold fronds of a light green tint; Onychium auratum, Platycerium stemmaria, P. grande, and P. Willincki, Actiniopteris radiata, a singular-looking and P. Willincki, Actiniopteris risiata, a gingular-looking Sporodocarpum glauca, Adiantopeis radiata and A. dolabriforme. Polypodium trioides, \&c. (Gold Flora Medal).
A few varieties of Gaillardias in considerable numbers were shown by Messrs. Kelwhy \& Sows, Langport, Somersetshire. These flowers had chiefly rays coloured crimson as regards the basal part, with more or less of yellow at the tips. The crimson and yellow varieties were Vivian Grey, Vauqueline Gloire, and John Kelway; Gold-dust was of a very bright tint of Gloire, and John Kelway; Gold-dast was of a very bright tint of
yellow. They aleo showed fruiting sprays of Rabus phoaicoyellow. Chey aloo showed fruitimk sprays
Mesars. Cripps a Sox, Tumbridge Wolla, showed Apparagua Sprengeri, which the committee wiahed to see again; and Daphne laureola, with purple foliage. A Clove Carnation of the true colour and scent, came from Mrs. TUDWAY, 17. Lower Berkeley Street. The habit of the plant is good, but the flower was, as seen, too small. A new Viola, W. Haig. a beautiful royal blue-col oured variety, came from M bertson, Rothesay, N.B.
Mesars. R.WALLace \& Co., St. John's Street, Colchester, exbibited a collection of bulbous flowers, including the follow ing: Tigridia grandiflora lilacea, a very handsome variety, of
a lilacy-rose colour; T. g. aurea, quite as pretty in its way as the other; Montbretias aurea and Etorle de Feu; Hemerocallis aurantiaca major, a fine large flowered variety; Lilium Henryii, L. Lowii, L. Batemaniæ, L. auratum platyphyllum; some varieties of Gladiolus Lemoinei, much improved in colour and size of flower and spikes. Altogether an interesting as well as brilliant group of plants (Silver Banksian Medal).
W. Robisson, Eeq., Rust Grinstead, showed hardy Water Lilies, and leaves of great vigour and size (Bronme Banksian Medal).
Mesers. J. V"eitch \& Soss, Royal Exotic Nursery, Chelsea, exhibited Begonia acerifolia, a foliage variety, with velvety leaves of a bronzy colour, spenkled with a silvery colour, the main ribs of the leal being of a light tint of green. The leat is palmate, with deep rugged indentations on the edge. B. Burkei is a vigorous grower, the leaf green, with deep indentations, and leaf-stalk splashed with red colour. B. decora is a dwarf-habited variety, with dark-brownish leaves, and veins and ribs of a light-green tint; a pretty variety, eren should and mbs of a light-green tint; a pre
Thos. Ware, Hale Farm, Tottenham, showed a collection of flowers of bulbous and herbaceous perennial planta, extremely varied as regarded the species and varieties (Silver Banksian Medal).

Mr. R. B. Lowe, gr. to Earl Brownlow, Aahridme Park,
Berkhamsted, exhibited the seldom flowered Brumarigin Berkhamsted, exhibited the seldom flowered Brunsrigis
Josephinit, a south African bulb, with a flower-stalk 2 to 3 feet high, and a corymb of small scarlet flowers, which as feet appear at the ext-emitios of radiating pediclo-s 1 foot long, and numbered in this exumple sizteen, are very whde apart. The plant received a First-class Certificate. We heard that Mr. Lown's succes was due to leaving the bull undisturbed for nine years, and affording it no water during the season of rest, that is, for a period of six months.
The Sweet Pea, Cupid, was again shown by Mr. Bukiere, Philadelphia, U.S.A. Mr. Jas. Douglas, floriat, Elenside Great Bookham, showed Carnation Britannia, a fairly full pale-ynllow variety.
Mr. MoArthun, nurseryman, Maida Vale, showed Ariseema fimbriatum and Eucharis Gortoni, the latter, a starry-flowered form, had been grown and bloomed in an ordinary rreenhouse. From the mame exhibitor there came a quantity of dwarf Bamboos and Lilies, including Lo auratum and varietie of Lopeciosum and L, elegans; these were arranged together, bloom and the capabilities of the variety whilst quite young
to produce good heads of flowers, were shown by Messrs. B. S.
Williams \& Son, Holloway, N. Messrs. P. Barr \&e Sons, King Street, Covent Garden, showed an extensive collection of cut flowers of hardy plants, L. Milleri (bright blue flowers); Chelone, Heliopsis, Tritoms Rudbeckia, Eaothera, Agapanthus, and Bocconia cordata. The collection bespole the great resources of the firm in this direc collection bespoke the great res
tion (Bronze Banlrsian Medal).
tion (Bronze Banksian Medal).
Messrs. J. Laimg \& Sons, Stanstead Park Nurseries, Forest Hill, S.E., showed largely of Codiæums (Croton), having small, well-coloured examples of the more novel varietiesMadame A. Bleu, Golden Ring, Memphis, Gordoni, Flambeau, Lady Hillingdon, and superbus. The Streptocarpus shown consisted of the varieties Baron Chandon, with violet segments and throat, with purplestripes running down the latter; Oxonian has a deep violet ground colour; the othere were less distinct although pretty enough. They showed aloo three varieties in white, yellow and crimson, of bedding Antirrhinums (Silver Banksian Merial)
B. Ricketts, Esq.. Caen Wood Towera (gr., Mr. Burt),
showed Lilium auratum Burtii, a variety with a crimson band showed Lilium auratum Burtii, a variety with a crimson band on each segment, We doubt the propristy of attaching a Latin name to a mere garden variety.
From Sir Thevor Liwrence's garden, Burford Lodge (gro, Mr. Bain), came some stems and leaves of Setaria alopecurioides, furnished whth greenish-brown plumes. The leaves are of considerable length, and a width of $1 \frac{1}{4}$ inches. Mont coloured flowers; M. Etoile de Feu, Anthurium Maris, with coloured flowers; M. Etoile de Feu, Anthurium Maris, with a large white apathe, having a pink-coloured spadix and large
leaf; besides these wa a quantity of different species and reaf; beside these was a quantity of different species and in one vesel. A. Silver Flora Medal was awanded for the above-named cut flowers, \&c
Mrs. Crawford, Gatton, Reigate (gr., Mr. Slogrove), showed a fine large flowering variety of Lobelia cardinalis, named Orawfordiense, another example of an improper Latin varietal name.
A. B. Freeman-Mitrord, Batoford Park, Moreton-in-theMarsh, showed the graceful Bamboo, Dendrocalamus mombranaceus, receiving an Award of Merit.
Messrs. G. BuNYARD \& Co., Old Nurseriew, Maidstone. howed Sorbus Aucuparia, with yellow and red fruits, and a eeping variety of the last-named (Award of Merit).
A Fuchsia with yellow variegated foliage and good natura pyramidal habit, came from Mr. WITTY, Nunhead Cemetery. S.E.

Mr. W. H. BeLCHAMBER, Rose Cottage, South Park, Reigate, of artistic character, but some also showing what to avoid.

## DAELAS.

This was the first cccasion on which Dahlias put in appearance, and already new forms of the Cactus type are challenging attention, Messrs, J. Cheal \& Sons, Lowfield Nurseries, Crawley, had Arthur Cheal, vivid red, shaded with darker tint towards the centre, a fine and showy variety, singularly bright in colour (Award of Merit); Mrs. Gordon Sloane, brilliant orange-salmon, very pleasing and promising; Mrs. Wilson Noble, crimson, bright in tint, and good Cactus type Mrs. Broughton-Stirling, bright reddish cerise, very promising; and Mrs. Montefiore, bright scarlet. Evidently Mesars. Cheal \& Sons have a good strain of seedlinge of this type. Mr. J. W 4 LKER, nurneryman, Thame, had a large callection of highlydoveloped ohow tarieties, very fine indeed for 20 early in the Rawlinge, Mrs. J. Greaves, yellow self, Mies Browning as a Rawlingo, Mra. J. Greavem, y yellow melf, Mies Browning, as a pure in this variety; John Walker, the finent white self: Misa Cannell, J. C. Reid, Royal Queen, Joseph Green, R. J. Rawlinge, also a fine yellow self, and Maud Fellowes. Alvo a number of blooms of Cactus and decorative varieties, chief among the former being Delicata, Mre. Douglas, Kathleen Pictor, Countess of Radnor, and Mrs. Peart. Mr.S. Mortimer, Swise Nursery, Farnham, Surrey, Btaced nixty booms of Cactus Dahlias chiefy, in almont every case a row of three blooms of one variety; and among them the following were seen in very fine character, Lady Penzance, Apollo, Delicata, Bertha Mawley, and May Pictor, bat all wers very good. In a large groep of cut hardy flowers, Mr. T. S. WARE bad bunches of Pompon and other Dahlias, aod a new Cactus variety bearing the name of Mrs. E. Becl, bright pale orangered, with tubular flonets, a fine form of the true Cactus

## Gladrolas.

These flowers were represented by a very fine collection of ten dozen spikes from Messrs. Kelway \& Sox, The Nurseries, Langport-to two of whech, Earl of Cadogan (the individual flowers very large, the coo our rose flated with maroon on the potal edges), and Don José (purple flaked with dark), A wards of Merit were made. This last greatly resembles a variety named of Merit were made. This last greatly resembles a variety named Which they received a Certificate of Merit under this name. It is a little curious that two spikes should have been shown in London as at Taunton. Other fine new varieties were Lord George Hamilton. Robert Morrow, Dule of Devonshire (pale scarlet, with a white throat). Col. Welby, and C. T. Ritchie. From Burford Lodge, D rking, the residence of Sir Trevor LAWRENCE, Mr. W. Bain brought a collection of new varieties, English. French, and $A$ merican novelties, and chief among them Mrs. Beecher (American), a large, rosy-scarlet variety, with a
white and parple throat (Award of Merit); and Dr. Sellen white and purple throat (Award of Merit); and Dr. Sellen appeared to represent a strain of fine English varieties crossed with the best of the Lemoine type.

## Chryalifthemums.

The flozal surprise of the day were the fine new forms of hybrid annual Chrysanthemuma, all single-flowered, exhibited by Mr. HENRY Brownhill, seedsman, Sale, and obtained by croseing C, coronarium on to C. carinatum. All the flowers shown, and there were several bunches of each, were cut from plants propagated by means of cuttings, in the same way that the double varieties of C. coronariuma are propagated by the
market growers for market purposes. A wards of Merit were market growers for market purposes. Awards of Merit were yellow, with a golden disc, broed, flat florets, the flowers
large, add of fine shape; Princess May, white, with deep large, aod of fine shape; Princess May, white, with deep
yellow ring round an orange disc, florets broad, and of fine shape; elegans, pare white, with \& yellow ring round a dark dise; ard Chieftain, large bright yellow, with dark disc-very
fine. Duke of York, a deep yellow self, also very fine, failed to obtain an Award. These new forms promise to be invaluable for cutting and decorative purposes.

## Orchid Committee.

Pretent: F. W. Burbidge, Esq., M.A., in the chair; and Meaure. Ja. O'Brien (Secretary), A. H, Smee, W. Cobb, J. Douglas, T. W. Bind, E. Hill, J. Gabrie), C. Pilcher, W. H. White, H. Ballantine, H. M. Pollett, De B. Crawabay, T. B. Haywood, Dro M. T. Matere, F.R S.; and Dr. F. K äjzlin of Berlin. The meeting was a most interesting one, and it was marked by the presence of an unusual number of renlly good new hybrid Orchids. Foremost amongst these stood the handsome
Cattleya $\times$ Fowleri (Leopoldi $\times$ Hardyana) shown by J. Cattleya $\times$ Fowleri (Leopoldi $\times$ Hardyana) shown by Jo
Gurave Fowler, Esq.. Glebelands. South Woodford, and raised by Messrs, F. Sander \& Co.. Sto. Albans. The plant bore an inflorescence of two large flowers of firm texture, in colour
of a clear rosy-lilac, except the broadly-expanded, crimped front lobe of tha labellum, which was of a rich crimsonpurple, the tipe of the side lobes, which were white, bearing
a blotch of the same colour. The plant received a First-clasg Certificate.
Equally good an interesting in its way was Cattieya $\times$ Eros (Walkeriana of, Mos ixie) shown by Measrs. J. VEITCH \& Soss, Chelsea, which also secured a First-class Certificate. iana, and flowers equal in size to Cattleya Mos,iæ, and of the same warm rose hue; the labellum, which had the open form of C. Wallerisna, being crimson in colour and velvety in texture.
Another fine bybrid was Cypripediuma Massaianuma nuperbum (Rothschildianue $\times$ superbiens), shown by THos. STatter, Ebq., Stand Hall, Whitefield, Manchester (gr., Mr.
R. Johnson). In form it resmbles C $\times$ Morganim, but the flowers have broader segments than that variety. The upper sepal was white with a greenish tinge and some purple lines; the petals ivory-white spotted with purple, and the labellum brownish-rose (First-clase Certificate). The same cross was shown by Messrs. F Sander e.Co.. and Baron Sir H. Schroder. J. T. Holmes, $\mathbf{R} \mathrm{cq}$., Beechen Cliff, Bath, showed the first absolutely pure white form of Dandrobium Phalænopsis, which the Committee decided to name D. Phalænopeis var, hololeuca, that already certificated as D. P. alba, haviag pink lines on the lip. This cbarming variety received a First-class
 remarkable alike for their rarity and pood culture. One of the most interestiog was Polycycais Lehmanni, with a spray of very remarkable and pretty flowers. The repals an I petals are reflered, aud in colour yel'owish-white epotted with purple. The side lobes of the lip. which has a remarlikble structure, ate curled back bepeath the slender gr jen, parpletipped column; the broader froat lobe being white, spotted with parple, and covered with long, elender haip-lite protuberances (Botanical Cortificate). In the same group were searlet flowers scarlet flowers (Award of Merit); the pretty yellow. and-checs-
iste coloured Maxillaria fucata, with sixteen flowers (Award of Merit): three fine forms of Pha'renopsis Esmeralda, LeelioCattleya $\times$ Ezoniensis, A èrides Lawrencee rar. Sanderiana, Dendrobium longicorna (Botanioal Certificate); Calanthe matalensis, Vanda Hookeri, Polystachya odorata (Botanical Certificate); the resy singular hyb-idCypripedium $\times$ Sanderiselligerum, and the noblest plant of saceolabium coe'este yet seow, and which bore fifteen flower spilke9 (Caltural Cormmenनiation). The gronp was awarled a Silite: Baylrsian Medal.

In the group staged by J. Gurney Fowler, Esq., Glebelands, South Woodford (gr., Mr. J. Davis), were also remarked some fine spacimens. A grand plant of a noble form of together ccerulea, named Fowleri, with four spikes, bearing together Certificate, the fine old plant not yet having previously been so honoured. Leelio-Cattleya $\times$ elegans was also shown with ten flowers on a spike; and Zygopetalum rostratum, Angree
cum Scottianum, Catasetum Bungerothii, Cattleya superba splendene, Cypripedium superbum, Damidoft var., and others, were also well represented, the group secaring a Silver Banlsian Medal.
Remarkable for the fine quality of the plants and for Hisic arrangement, was a fire group by T. B. Huywson $\mathrm{Harr}_{\text {. }}$. Woodhatch Lodge. Reigate (gr., Mr. J. Salter). The group was divided into three sestions, each with a large and graceful Cocos Wedelliana in the centre. The middle and extreme ends consisted of Miltonia vexillaria and MaidenOdontoglossum Harryanum (Silver Flora Medal).
Baron Sir H. Schroder, The Dell, Egham (gr., Mr. H. Ballantine), showed a group of cut blooms of choice Orchids, including Cattleya Hardyana, Clark's variety; Mormodes lusatum ebarneum, Sobralia Lowii, Vanda insignis, V. tricolor insignis, V. Roxburghii, Rhyncastylis gutcata, Aërides nobile, A. Sanderianum, Cypripedium Stonei platytænium, and a remarkable form of Odontoglossum ramosissimum, with a densely branched spike of white flowers having purple blotches
Medal)
Mesgrs. F. SAMDER \& Co.staged an effective group, consisting mainly of many forms of Dendrobiam Phalrenopsis Schroderianum. With them ware the beautiful Odontoglosaum Wattianum, with cream-white violet-spotted labelium (First-class Certificate): Cattleya Leopoldi, Sander's var.,
one remarkajle beanty (Award of Merit); Calanthe Sanderiana, C. Laucheana, Cattleya $\times$ Kienastiana, C. $\times$ Prince of Wales, Leelio-Cattleya $\times$ elegans prasiata; the handoome . $\times$ Massaianum superbum; C. $\times$ vexillarium, $\mathbf{C} . \times$ enan thum superbum. Cattleya aurea, Catasetum fimbriatum, Radriguezia secunda, Miitonia vexillaria rubescens, Cirropetalum picturatum (Silver Banksian Medal).
petalum picturatum (Silver Banksian Medal). (gr., Mr. T. W
C. InGRAM, Esq., Elstead House, Godelming Bond), showed Leelio-Cattleya $\times$ Elstead Gem (C. bicolor $\times$ L. Eanthuma), a pretty hybrid, with yellow sepals and petals, and lip of the rich crimson-purple seen in $\mathbf{O}$. bicolor, whose influence in its form was also distinctly traceable (Award of Merit): Cypripedium $\times$ album (leucorrhodum $\times$ Schlimii), and Lexlia $X$ striata, a supposed hybrid, but whose flowers were not fully developed. E。 H. Woodsilu, Esq.. St. Nicholas House, Scarborough (ge., Mr. Hughes), showed a fine form of Vanse, Scarborough (gr., Mr. Hughes), showed a fine form of Sov, Cheltenham, sent Cypripedium $\times$ pendulum (Argus Moensii $\times$ philippinense), an elegant and distinct hybrid. Admiral R. P. Cator, Hazelwood, King's Langley (gr., Mr. G. Day), showad Eris stellata, with fine spikes (Botanical Certificate). Messrs. B. S. Williams \& Sox, Victoria and Paradise Nurseries, Upper Holloway, staged a pretty group of Cypripediums, the moat striking being $\mathrm{C} . \times \mathrm{G}$. H. Rogers (insigne violaceo-punctatum $\times \mathrm{C}$. superbiens), the ground colour of whose flowers was ivory-white, with markings of rose and purple: with it were C. $\times$ Morganix, C. $\times$ orphanum, C. $\times$ vexillarium supertum, c. $\times$ Ashburtonire expansum, $\mathrm{O}, \times$ Harrisianum superbum, C . tonsum, . 3 , cenanthum, C. Wallaertianum, \&e. T. STatter, superbum with eight flowers on a spike. F. Hardy, Esq., Tynterfield, Ashton-on-Mersey (gr., Mr. T. Stafford), sent Cattleya $\times$ Brymeriana and Leelia crisps. F. W. Moone, E.q. Glasnevin, Dublin, sent Cattleya glandulosa giganPaterson), showed wasieties of Cypripedium Godefroyæ and Zggozetaluma stapelioides. Mesors. HUGE Low \& Co. staged an effective group of Orehids, including Catasetum purum, Cyenaches chlorochilon, Cypripedium Parishii, C. Charlesworthii, Cattleya Eldorado Wallisii, Saccolabium cee'este, \&sc. R. Bronman-White, Esq., Arddarroch, Garelochead (gro, Mr. G. Roberts), sent a largs form of Odontoglossum Pescatoret, and three singular varieties of 0 . crispam, one with a broad line on each eegment being very remarkable.

## Fruit Committee.

Present: P. C. Crawley, E*q, in the chair ; the Rav. W. Wilke, Meara. T. F. Rivert, G. Banyard, J. Saltmarah, J. Cheal, A. Deav, J. Willard. J. A. Lang. J. Hudson, G Wythes, W. Balderson, G. H. Sixe, G. Raynolds. G. Noiman, R Fife, A. F. Pearson, and A. F. Barron, Secretary.
Earl Percy. Syon Houze, Brentford (gr., Mr. G. Wythes), sent Melons Excelsior, which gave both white and gcarletfleshed fruits, James Ranking, and Middlesex Eero, green-flesh. The latter was so good ag to receive an A ward of Merit unanimous'y. The parents are Hero of Ioleworth and Sion Honse. The Messrs. Rothscuild, Gunnersbury House (gr., Mr. J. Hudson), sent Melons Scarlet Hero of Lockinge, and Sutton Scarlet. both very handsome. Mesprs. G. Bunyarn \& Yons, Maidstone had Apple White Transpareat, fruits large, conical, white, and very handsome. This was tested and fornd to be so excellent overs for dessert purposes, that an Award of Merit was made. Mis Hexpenson, Oatlandy Park (gr., Mr. T. Taylor), sent very fine Princess of Wales Peaches, richly coloured (Cultural Commendation). Mr. E. J. Pbestox, Kelvey Parly, Beclenham (gro, Mr. Webster),
had very fine samples of Red Carrant Versailles, and hate growths of Raspberries carrying a heavy crop of fruit (Vote of
Thanks). Mesers. Laxton Brotaers, Bedford, showed Laxton's No. 1 Seedling Apple, from Early Julian and Yr Gladstone. Mr. F. Cleaver, Leamington Spa, sent a greenid seedling Apple Cleaver's Favourite. Mrs. Robb, Rutland Gata had bunches of Crategus speciosa and of Pyrus divaricata in fruit, the latter having both yellow and red varieties.
From A. Waterhouse, Esq.., Yattenden Court, Nembary, me seedling Peach Epicure. Mr. W A YTON, Hereford, had a bas of Victoria Plums, and one of Gladstone Apples, each holding about 20 lb . of fruit, to show how much better it is to pact fruit in this way, the boxes being cheap and non-returable The Plums were first-rate, being neatly packed in layers, bat the Apples had been broken open in transit, and thus wew not seen as they should have been (Vote of Thanks).
Mr. J. Bargo, Highgate, sent a plant of Longpod Bean us Four varieties of Dwarf French Beans,
Four varieties of Dwarf French Beans, grown at Chiswieh, and awarded three marls there recently, viz., Longfellow, Verts, had the AWard of Merit confirmed, as also had Lettrew not now exhibited, but each awarded three marks at the sani time, and mentioned in the Gardeners' Chronicle, p. 136.
A. First-class Certificate, recommended by the committee which met at Chiswick on July 26, was awarded to Riveri Early Favourite Plum, also referred to on the same page. An $\Delta$ ward of Morit was given to alpine Strawberry Rouge amelioré, a long-pointed seedling variety of the Le Qustre Sainson's section, shown by Mr. J. Hudson, Gunnersbury Hions Gardens.
A very intarestiag exhibit, from Mr. 1 CULVERWELL, sant through Dr. MasTERS, was a hybrid Gooseberry, product The branches were spineless, the leaves Currant-like frag. rant, and the fruits, small red Gooseberries, had quite s black Currant flavour. A vote of thanks was accorded for this interesting exhibit. No doubt more will be heard of it at some future day.
A Cultural Commendation was awarded to a collection of the varieties of Plums from Chiswick Gardens, grown on the wallh, These consisted of reds, Sultan, Curiew, Bittern, Lations lash Golden Esperen, Reine Claude. Comte Althanns, and Coctho Gelden Rsperen,
Pere, rich yellow.
Messrs. J. Veitce \& Sons, Chelsea, showed a fine collective of eighteen dishes chiefly early dessert Apples, numene Plums, Cherries, Pears, \&c., to which a Silver Knightin Medal was awarded. The Apples included Devonshire Quasp renden, Beauty of Bath, very handsome; Mr. Gladstach Early Harveat, Paradise Pippin, Red Astrachan; the Patis, Beurré Giffard, and Jargonelle. Plums were Czar, Fropmore Orleans, Old Orleans, Magnum Bonum, Strut, and Early Po Orleans, old Orleans, Magnum Bonum, strut, ancage, Truns lific, red; and Early Grolden Drop, July Greengage, parent Gage, Mamelone, and
some good alpine Strawberries.
Messra. G. BUNY 1 RD \& Sons, had a splendid lot of 4 ppleth some thirty-six varieties being wonderfully good so early in the season, getting also an award of a Silver Knightian Medsh Fine dishes of Gold Medal, Lord Surfield, Pott's Seediim Grenadier, White Transparent, Stirling Castle, Lord Grosenor Northern Dumpling, Old Hawthornden, Duchess of Oldenbuag Northern Dumpar Sugar Loaf, and Frogmore Prolific. Kitchen sors Palace later, promise of what may be looked for at the Crystal Palace iere alo especially if fine weather would but come. There were ain Beauty of Bath, Lady Sudeley. Red Juneating, Warceter
Pearmain, Cardinal, Mr, Gladstone, Red Quarrenden, En, Pearmain, Cardinal, Mr. Eladstone, Red Quarrenden, \&en and dessert varietien.
Messra. T. RIVERS \& Sons, Sawbridgeworth, also reveived s Messra. T. Rivers \& Sons, sawbriageworti, ald Plums, Cherries, \&cc. Good Apples were Stirling castur Ecklinville, Keswick Codling, Duchess of Oldenburg, Eariy Rivers Codlin, Cardinal, \&c.; Plums, Grand Duke, Mallaw Monarch, Oullin's Gage, from indoors and outside, to shom fitness for drying purposes: and of Cherries, Bigaresin Monstreuse de Mezel and Emperor François, white; and Bigarreau Noir de Guben, and Géant de Hedelfingen, the lattien obtaining a First-cless Certificate for its rare and rich flavouril Mr. Empeon, gro to Vere Wivg Fichd, Esq., Ampertill Mr. Kmpeon, gr. to Vere Wirgrien, including some huis House, had a nice collection of Grapes, including Silver Binlb
Muscat of Alezandria and hardy fruits: a emall Muscat of Alerandria and hardy fruits: a small before the com
sian Medal was awarded. He also placed ber mittee seedling Grapes from Madresfield Court and from Gros Maroc, but both seemed to be too like their wat the parents to be regarded as distinct. It will be seen theting. parents to be regarded as distinct. It interesting meeting

## LEICESTEB.

August 6.-Promoted by the Park Committee of the Leiceater Corporation, who allotted the liband sum of $£ 200$ to be offered in prizen, the tent abbes show took place in the fine grounds of Park, on the above date. The attendance good, and nearly 20,000 persons pased the trinalia That many of them were attracted in a greanection *ure by the Gala held in the groands in cic with the show, and by the choice masic suppliers by the four excellent bands in atten of the tent can ba no doubt; but the crowded state of fraita throughout the day amply proved that the resedalo flowers were the chief attractions. of them mes contained 136 classem, and as many of them coltagen devoted to the exhibits of amateurn and
whose interesta are the mpecial object of the show committee, and whose entries were very numerous, it will readily be understood that an immense amount of work must have fallen on Mr. John Barn, the Carator, and the acting membera of the committee. These gentlemen muat be congratulated on having brought off auch a succesaful thow under aomewhat trying circumstances, the weather being very changeable throughout the day.

The principal classes were allotted a marquee apiece, that deroted to Division A-plants being mainly occupiod by the groupe arranged for effect-which took up the whole of the middle of the tent. As at most large exhibitions, great interest centred in the competition for these groups (to occupy 100 feet), the lat prize for which was \&7. The coveted let fell to Mr. C. J. MEE of Nottingham, whose arrangement was perfect from sn artistic point of view, and moreover, the puitable. The centre was a noble Phoenir rapicola, and set up on little mounds of velvety green moss were Alooasia Sanderians, Cocos Wedelliana, and other handsome foliage plants, deriana, Cocos Wedelliana, and other handsome foliage plants,
and it was observable that the most was made of every plant in the matter of producing effect. Some of the other groups had ten times the number of plants than this one, but the quantity amothered any artistic effect. Thn 2nd prize went to Mr. Rogers, Gipsy Lane Nursery; the 3rd to Mr. H. Buakeney, Dunsmore, Rugby; and the th to Mr. Geo. Perkiss, Belgrave Gate ; all these being fairly good arrangements. Mr. C. J. Mee'b exhibit also secured the 1st prize of ries, Notta, for the best elhibit of plants, fruits, or flowera, grown with the aid of their chemical manure.
For six exotic Forna, ${ }^{\circ}$. Mr. Blakenex, Dunumore, secured let prize, with very fine specimens ; Mr. C.J. MEE, Nottingham, 2nd ; and Mr. WFATT, Oadley, 3rd.
In the clase for siz stove and gresnhouse planta, the specimens in competition were good and well grown, though not largo. Mr. W. S. Bolton, Barkley, secured lot prize; Mr. C. J. Mee, Nottingham, 2nd; and Mr. G. HRown, Stoneygate, 3rd.
Both for six aingle and six doable flowered Begonias, Mr. Jis. Wriant, Granby Street, Leicester, took 1st, with excellent speoimens in each class, and he performed the same feat in both clasees for aingle and double zonal Pelargoniums.
Cut Blooms.-The National Rose Society was aseociated with the Leicester show this yenm and in the Rose tent there was a very fine and freah-looking display. Messrs. Harkiness \& Son, Bedale, who ahowed grandly, oarried off premier honoura for the prize for thirty-six Roses (open): Mesorrs J. Cocker \& Sons, Aberdeen, being 2nd: and Mr. W. H. Frettikgiam, Beaston, 3rd.
Mor twenty-loar Roses (open), Messrs. H\&RENEss and Mosura. Cooker aloo maintained tha same position.
For twelve Teas or Noisettes, Mr. H. V. Machin, Gateford Hill, was lat; and for twelve Roses, of any one variety, Messrs. HARKNEss \& Son were lst, with fine blooms of Mrs. John Laing; Mesars. Cocker \& Sons being 2nd.
In the bouquet tent, some very fine bouqueta, wreaths, epergnes, \&cc., were ahown, the Orchids, which were repreclass for them, showing in the plant classes, there being no Mesors. Pearsor a Soss, Chilwell, took lst, both for hand and for bridal bouquets.
Frutt.-Fruits were well shown, and the great prize for the best eight distinct dishes of fruit, three varieties of Grapes allowed, two bunches of each, one Pine and one Melon only, fell to Mr. J. H. Goodache, Elvaston Castle Gardens; 2nd to Mr. W. Messengen, Woolverstone Parl Gardens, Ipswich; 3rd, Mr. J. READ, Bretby Hall Gardens, Burton.
Miscellaneous, - Carnations were well represented, and hardy perennials were good, the floe exhibit of Mesars. HarkNES3 boing a representative one. The vegetables and cottagers' clasess were numerously competed in, and among the
fine groupe not for competition, and which wore perhaps the five groupe not for competition, and which were perhaps the and double flowered Begonias, staged by Mr. T. S. WARE, Hale Farm Nurseries, Tottenham; and that of Caladiums arraoged by Meserv. PEED \& Sons, Norwood.
The fact that some of the amateurs and cottagers entered each in upwards of forty classes, proves the good work the Abbey Park show is doing, and the interest taken in it by those it is opocially designed to benefit and instruct.

## WELSHPOOL HORTICULTORAL.

Augus 8.-This aociety is to be congratulated upon the great atrides it has made aince it was firat laanched into exiatence three years ago, and it can be aafely predicted of it now that it has come to atay, ite management being in the hands of enthu* siastic and old-experienced ahow-promoters.
The show itsolh, as regards exhibits, both competitive and non-competitive, was emphatically a succoss ; among the latter, most deserving of special mention, was an arrangement the gardene conspicuous pasition in the apacious tent from fineet thing Powis Castle; as an effeot it was one of the Ferns, Orotuns, Caladiums, Amaryllis, ic., with wello Ferss, Orotuns, Caladiums, Amaryllis, *c., with welldeveloped spikes of Humes elerans standing above the arrangement, formed miniature mountains, and in the cor-
reponding valley were the popular Caladium argyrites, nice plante of the new Dracmeak Sanderiana, the exceediayly
the supporting poles of the marquee were literally clothed with Maidenhair Fern suspended in terra-cotta wall-pots. Another fine group deserving of mention came from the gardens at Llanerclwyd, Captain Lovell being president for the year.
Competing groups were numerous and lilewise good, Messrs. Jones \& Son, Shrewsbury, taking 1st honours, followed by the Misses Howell, Rhiewport. Welshpool (gro. Mr. Jones), and Mrs. Curling. Drooklands (gro, Mr. Mac farlane). The same exhibitors were successful in other plant clasees, and in Roses, which were not numerously shown, Drcssons 2nd. The small classes of cut flowers were well filled, and the quality good, floral arrangements, too, being in the open and amateurs' classes, decidedly good.
The fruit-ranks contained competitors as far off as Staffordshire, who divided the honours with the local growers. Mr. A. Joilmson, Oulton Grange, Stone (gro, F., La wabert), woa lst for eight dishes, with a highly-meritorious collection. J. Tams, The Heyes, Stone, was list for Hamburghs and Muscats, followed in each case by Mr. F. Lambert:; other successes in fruit being gained by Mrs. Cubling, the Misses Howell, Captain Pryce, Mr. A. C. Humpireys-Owen, M.P., and others.

The same names were ag ain conapicuous in the vegetable clasess, with the addition of Dr. Hawrswobth, R. Ll. Kewron, Ksq., Oswestry (gro, Mr. Duralll), Sir P. P. Jones, Newtown (gra, J. Shute), and Captain Davioson; and a word
of praive should be added for the exoellence of the exhibits in of praise should be added for the eroellence of the exhibits in this department.
The amateur's and cottager's classes bore gratifying testimony in the generally high quality of the exhibits, to the value of such societies as this, in promoting the culture of edible and ornemental vegetation to the uadoubted adrantage of the public individually and collectively. Space will not permit other than a general notice of the many noteworthy erhibite, but mention muat be made of a fine diaplay of herbaceous cut flowery and of tuberous Begonias (for which special a wards were granted) from Messrs. W. Clibran \& Son, Altrincham ; an exhibit of plants by Messers. Dicksons, Chester; and a simuilar exhibit from Messrs. Kerr \& Son, Liverpool; a table of herbaceous blooms from Messrs. CuTbusgr, of Highgate ; a miscellaneous exhibit from Measrn. Jones \& Son, Shrewsbury; and a large collection of sweet Peas from Mr. ECEFORD's gardens at Wem.
$A$ word of credit is due to Mr. Lambert, the indelatimable gardener at Powis Castlo, who has worked hard with Mosers. ADDIE fand WARD, the secretaries, for the success of the show, and of congratulation to the society on having so
noble and publio-spirited a patron as Cord Powis, who allowed the free use of his home park, with the rua of the famous gardens, for their benefit. Visitor

## TAUNTON HORTIOULTURAL.

August 8.-This was the thirty-eighth annual exhibition, and the society not only holds ite own am producing the largent exhibition held in the weat of England, but it every jear attracte thousanda to wee it. It was atated that it was nineteen years the thow had been held on a wet day; and this occasion proved no exception, the day was perfect ap to 3 o'clock, then a slow drizzling rain aet in, which continued antil night. Despite this drawback, there was a very large attendance. The exhibition took place as usual in Vivary Park, which having now become the property of the town, has been laid out as a public garden, and very greatly improved, though not jet completed. As is uaual, there were four very large tente quite filled with exhibits; also one for table decorations; and others for honey and bee appliances.

## Phants (Opem).

In the large plant-tent, which contained all the opon classes. plants and cat flowers fift claim attention, the sum of £20, offored as a lst prize for twelve stove and greenhouse plants in flower, always bringing a good competition. As is usual, Mr. J. OYPHER, nursoryman, Chelteaham, was $18 t$, with very fine
examples of Bougainvillea glabra and Sanderiana, the latter examples of Bougainvillea glabra and Sanderiana, the latter
smaller ia the bracts but very deep-ooloured; Ericas tricolor rosea, Thompenni, and obbata purpurea; Allamandas nobilis and grandiflora,; Phcenocuma prolifera Barnesii, Inora salicifolia, \&ce. 2nd, Mr. W. Rowland, gr, to W. Brock, Eeq., Exetar, who had much the same subjects.
With six plants, Mr. OrPEER was again 1st, having Erioss Austiniana and Aitoniana, Stephenotis floribunda, Bougainvillea glabra, Allamanda nobilis, and statice profasa. Mr. W. RowLaxd was again 2nd.
The bert group of plants arranged for effect came frome Mr. Rowhard, and had as a baokground Palms and the red-tinged Hames elegans. Bamboos were present, also gsy-coloured Crotons and dwarfer plants, foliaged and flowering, forming the foreground. Mr. W. Peel, gr. to Miss ToDd, Shirley, was 2nd.
Here was the fine.t display of large epeoimen Begorina we have yet seen. With eight plants comprising some fine double varieties, Mr. W. Thomse, gr. to W. Marsialle, Esq., Norton Manor, Taunton, Whas lst, snd Mr. W. Bond, gr. to
F. V. A. Reved, Keq., Milverton, came and; be had admirablyP. V. A. REiR, Keq. Milverton, carae and; be had admirablyin habit, but the flowers had become damaged in course of transit, which probably lont Mr. Rond the lst prize.
zual Folargoniums, both doable aoil mingte, were well grown and flowered. Fuchnias were decidedly below what wo
are accustomed to at Bath. The beat newly-introduced plant in bloom was Cypripedium Chariesworthii from Mr . W Thomas, and Mr. Cypeer was plaoed lst with four ()rehids Mr. Murrell, gr. to A. H, Miltor. Eaq., Clifton, was 2nd.

Foliaged Plants. - The best eight came from Mr. J. CYPRER, prominent among there were very fioe specimens of Keatime australis and Forsterisna, Latania borbonica, Crotone Sunset and Queon Victoria, \&c. Mr. Rowlard was placed 20d, The latter had eight exotic Ferns, having in excellent condition Miorolepla hirta oristata, Alsophile excelsa, Louco tegia immuna, Adiantum aseimile, and others, which were deservedly a warded the 1at prize, he being the only exhibitor,
Several clasest for specimen stove and greonhouse plant found a place here, but though well grown and bloomed thay do not require particularisigg.

## Out Flowers.

Those shown in the open to all diviaions, found a place round the sides of the tent. Rsses were decidediy good, the darkcoloured hybrid perpetuals largely preponderating. Messrs. Hıbiness \&ows, nurserymon, Bedele, were lot with thirty-sirand also with sightenn varieties; Mesers. TUWMsemD a Soy, nurserymen, Worcester, taking the add prizes in each

The best twolve blooms of show Dahliay came from Mensre. Hareness \& Sons ; Moara. Keynes. Whliams \& Co. bureerymen, Salibbury, taking the lat prize with twelve fancien man, Bath, was lst with nine bunches of single Dahliss ; and man, Batb, was ist with nine banches of single Dahliss; and
Mosers. Townemp \& 8 on with six bunches of $C$ actus and Moesrs. Townemid
decorative varietices.
Phlozes were good, and buaches of P. Drummondii very protty; the quilled and flat-petalled Asters showed traces of bad weather. Collectione of twenty-four spikes of Gladioli were very fine; Mr. S. Bird, gr. to W. Y. Yox, Esq., Wellington, was lat; and W. H. FowLEr, Esq.o 2nd. Carnations, Hollyhocks, and stands of doable and single Begonias were also hown.
Hardy pereanial and bulbous plants in eightoen bunches, wore very fiae. Moemra. Harinise \& Son, as at Leicester, ataging fine exhibita, tix varieties of Tigridias being oopecially fine; Mr. A. A. Walters was 2 ad.
Mr. THomas had the best twelve bunches of stove and greenhouse cat flowers, very handsome examples being ataged. Mr, Shelton, gr. to C. K. WAIT, Esq., Clifton, was 2ad.

Mr. Rowland was again 1 st with a prettily-arranged group; Mr. T. Eeeex, gr. to C. E. J. Esdaile, Esq., Biehops Lydiard, was 2nd. Mr. Bowhind was ist with twelvestove and greenhouse plants, and Mr. PIEL 2nd; but in the claes for six the positions were exactly the reverse. In the olass for four
plants, Mr. Peri was 1st, and Mr. Brocr 2nd; and the same with six foliaged plants.
Mr. PeEL had tho best six Exotic Ferne, etaging good apeoimens of a Gleichenia, Adiantum polyantha. A. cardiochlos, Davallia Moorenne, le.
Mr. R. Huxtable, gro to Y. W. Niwtow, Zsq., Taunton, was the only exhibitor of Hardy Ferns, and Moses, teking the lat prize.
Some fine specimens of Lilium specionum ware ataged, and nent bushes of Fuchsias. Mr. Thomes had the best six plants neet bushen of Fuchsias. Mr. ThoMAs had the best six plants
of single, and Mr. W. H. Fowler of donble Begonius. Some oxcellent specimens of Achimenes gained a let prize for Mr. Essex, they were Mauve Queen, Margaretta, Perfection, and Ambrose Verschaffelt, four excellent exhibition varietice. There were clases aleo for Coleus, Petuniss, Oloxinias, Cockscombe, table plante, de.
Cut flowers by amxteurs were numerous and good, and Mr. Thos. Hosbs, of Bristol, is to be congratulated on beating Dr. Budd, of Bath, with twenty-four, and twelre Rowen: Mr. $A$. H. Gray, Beth, beiog let with tweive Tens. Mr. W. H. FOWLER was las with twelve five apikes of Gladioli; and Mr. Thomss with six bunches of stove and greenhouse cut flowers Asters were in plenty, as were Drummond's Phlox; there were Dahlias also, Mr. Tros. Hobrs taking the 1st prize with twelve blooms. Pelargoniam blooms were very pretty, and Hardy Annualo very gay

Our record of the fruit shown is briet, owing to rain having driven the company to the tents and blocked the way to the tables. The best collection of eight varieties came from Mr. J. Lloyd, gr. to V. Stucker, Eaq., Langport, who had a very fine lot, consisting of Madresfield Court and white Muacat Grapes, Bellogarde Peaches, Pineapple Nectarines, Moor Part Apricots, Hero of Lockinge Melon, Bigarreau Cherries, very tine indeed, and Jargonelle Pears. 2nd, Mr. H. W. WARD, The Gardens, Iongford Captlo, Salisbury. Mr.
 was the only exhibitor of two Pineapples. The best throe bunches of Black Hamburgh Grapee, very fine, came from Mr. 4. Croseman; any othea black was well-fininhed Madresteld Court, from Mr. W 1 RD; and he had the three best buchan of whiter, from Mp. G. Webber, ©r. to G. F. Luctrall, Esq., Water, from Mr
Dunstlor
Melon, Peaches, Nectarines, Apricoth, deasert Pears, light and dark Plums, Apples (dissert and culinury), Cherries, ad bush fruith, all made a brave diaplay, the quality very good throughoat.

## Table Dec jrations

Were somewhat sparingly showa. There was but one dinner table, that from Mrs. Macaligter. Mr. H. R.Caryer had the best centre-piece, filled with dessert fruit; and Mr. J. CYPHER the best épergae. Boaquets and baikets of wild fowers made an attractive featuro.

## Vegetables.

These wore so numerous that they can only be briefly referred to. Mesors. Buttor \& Sons, Webs \& Sons, and Jarman \& Co., as well as the Society, offered prizes for six dishes in four clasess, and the lst in each case was won by Mr. T. Wilking, gr. to T. M. GUEst, Esq., Henstridge, Blandford. All these lst prize collections were very fine indeed, and wht up with admirable taste, and proved valuable object-lessons to young gardeners. Potatos, in several classer, Onions, Cauliflowers, Carrots, Paranips, Beans, Peas, Tomatos, \&c., were roally superb. In addition, there whas a large tent filled with very fine cottagers' productions in great variety, also wild flowers and honey.

## Miscellaneous Exhibits

Meosrs. Jarman \& Co., Chard and Taunton, had two collec tions, one consisting of Lilies, foliaged plants, and flowering also, Dahlias, Begonias, and other cut flowers; and a econd one of cut flowers. Messrs. Beechey, Jenkins \& Co. Kingoterwell, had Begonias, zonal Pelargoniums, sce. Mr W. J. Gonrrey, nurseryman, Exmouth, had his new Carne Clom, Reginald, in the way of Miam Joliffe, and regarded by market growers as an improvement upon it; also Wilfred Godirey, a perpetual yellow-ground variety of decided prinise also Sweet Pess, zonals, sc.
Mesors. R. Vettch sons, nureerymen, Exeter, had some very fine seedling forms of Nemesia strumora, showing a wide range of new colours ; also examples of their climbing French Beans, Dahlias, Carnstions, \&c. Mesart. Kelwhy \& Sons, nurserymen, Langport, had five boxes of Gladioli, among them some aew varieties of great merit, Certificates of Merit being awarded to the Shahzada, dark orimson-purple, very distinct; Daisy Vane, pale Jellow, very chaste; and Robert Morrow, pale rose; also Cannae, Gaillardias, and bunches of hardy flowere.

## CARDIFF HORTICULTURAL.

August 14 and 15. -This was the meventh annual hhow, and it must be admitted, denpite the changeable seamon, the bent the Society has yet held. The Sophia Gardens, in which the tenta were pitched, looked frenh in the extreme after the heavy rain. Eleven tente were required to take the whole of the exhibits, including honey, and the ahow of vegetables througbout was very fine. The morning opened guaty, but rain held off, and a brilliant afternoon brought together a very large campany.
STOVE ATD GMeraniouse plants are alwaya a lendingfenture, and Mr. J. CxpaER took the lut prize for an even collection Duffit Statice prof Bongainvillea glabra and Sanderiana, Ixora Duffi, Statice profusa, Ericas exquisita and Aitoniana, Clero desdron Balfourianum, Allamanda Hendersoni, Anthuriums wherzerianum and Andreanum, \&ce. The 2nd prize was withheld.
In the amateur clase for four specimens, Mr. J. GUNN, Llandaff (gri, B, MeLeod), was lst, having good examples of Crinum giganteum, Boagainvillea glabra, and Cissia co Fuchnias Col. Iir E. S. Hikl, M P. (gr., T. Clarke), was 2nd. Hobhy, and well blopresedted by some rery fine plants, large, bushy, and well bloomed. Col. Sir E. S. HILl was 18t; and Mr. T. Hileard, Cardiff, a working-man exhibitor, was 2nd, also with excellent specimens. Col. Sir E. S. HuL, also had the best four in the amateut division; Mr. E. CisHmas, Cardiff, 2nd.
Very good specimens of zonal Pelargoniums were staged, recalling nomething of the old days of the London Pelar gonium Society, but there is a tendency to train them a little too severely. In the clase for six apecimens, Mr. T, Hillard Ine in lst; and Mr. J. Oxemeam, Cardiff, wae 2nd.
In the elase for four specimens, Mr. C. WAldron, Llaadaff (gr., H. Bex), was lst with finely-grown and finely-bloomed plante; Major Thormeey, Penarth (gr., E. Perall), was 2nd, also with capital plante. Tuberous-rooted Begonias were good, but not equal to those seen at Taunton; the best dozen came from Mr. J. L. Thomas (gr., T. Malpan); Mr. E. LEwis (gr., G. Wale), wae agood 2nd. With six plante, Cal. Sir E. S. Hink was lot; and Mr. A. W. WintrepleLd, Candifi, znd.
Ghoupsof mpants amraged for effect falled one tint. In that frling a space of 100 feet superficial, Mears. Cast Bros., nat seircle, burdiff, were lot, the groap arranged in the form of taste. Mr but bright, hight, and graceful, showing excellent Page; Mr. R. Crosewnive, Penarth, was 2nd ; and Cal. C. H. Page, Handaff (ecr., Mr. J. Hockley), 3nd. The beat group occupying a space of 50 feet, came from Col. Hill, very nicely arranged: M. Gowiv, Keq., Presswylfa (gr., J. Styleo), was 2ad. The beat group occupying a space of 25 feet, came from Mr. K. Lewis; Mr. C. WALDRox, Llandaff. was ind. In Begonias competiag for the two fine groups of tuberous-rooted WIRr. Col Sirg for the special prizes offered by Mr. T.S. haractarised by R. S. Ricu was lat with a collection had, also vary bright quality; and Mr. J. L. THomas was Ior, also vary bright and elleotive. Some very good plants bright in decaration wave thown, all well grawn, clean, and bright in appearance. Some very good Gloximias took the lat prize for Mr. E, Lewrs.
Fine folisged plants came from Mr. Crperer and Mr. W. of HUCELEY, Lianelly (gr. W. Carpenter). The former was 1st Belmoreans, and Cycas undulata; and four charming Cis, and -Warreai, angustifolius, Queen ; and four charming Crotons fnely-coloured.
The bent eight atove and neenhouso Ferais came from Col.
Sir E. B. Hins, a very fine lot, chie amone

Woodwardıa radicans, Davailia Mooreana, Adiantum Frarley ense, A. tenerum, and Microlepia hirta !cristata. Mr. Jонw Gunn was a very close 2 nd; he had a splendid specimen of Neottopteris nidus, Davallia Mooreana, Oymnogramma chryeophylla, Adiantnm Farleyense, \&c.
With four fine-foliaged plants Mr. A. Petticrew, Cardiff Castle Gardens, was lst, having very good examples of Oyca revolata, Davallia Mooreana, Phognix compacta, and one othor. Mr. J. GUNN was 2nd.
With four stove and greenhouse plants, Col. PlaE was list also with very good speoimens; Mr. C. H. Bhilex, Cardiff, took the 2nd prize. The best collection of British Ferns came from Mr. W. L. Blake, Cardiff.
CUT FLOWERS, both"in the open and, amateurs' classes, made a very fine display. Mr. S. Treskder, nurseryman, Cardiff, was 1st, twelve varieties of trebles, having good blooms of J. S. Mill, S.•M. Rodocanachi, Mrs. J. Laing, Caroline Testout, Victor Hago, ac.; 2nd, Mr. R. Crosshing, Penarth.
With twelve varieties of Teas, three blooms of each, Mr. S. Treseder was also 1st; and Mr. R. Crosentwa 2nd. With twenty-four H.P. Hoses and eighteem Teas, the same exhibitors were again list and 2nd. Some of the beat Teas ware Catherine Mermet, $\mathfrak{S}$ 。 Uun Ami, The Bride, Bridesmaid, Medea, Marie Van Houtte, Francesca Kruger, and the Hon E. Gifford. The Silver Medal of the Royal Horticultural Society' was aleo a warded to Mr; 8. Trasener, for his twolve trablen of Tea Roseg.
In the amateur's clase for twelve Roses, Mr. E. G. Garraway, Bath, was 1st ; and Mr. Thomas Hobbs, Bristol, 2nd With twelve Teas, Mr. T. Hobss took the lst prize; and Mr A. Hill Grax, Bath, was 2nd. Messrs. Keynes, Williams \% Co., Balisbury, had the best twenty-four Dahlias; and Mr. Tressider was and, beth decidedly good for so early a time With twelve bunches of Cactus, Mesors. Keynes, Williams \& Co, were 1st, with Harmony, Earl of Pembroke, Bertha Mawley, Lady Penzance, Mrs. Barnes, \&c.; Mr. W. 'Tres. sider, ind. Dahlias were also shown by amateurs. Asters were shown in twelves, the Comet varieties preponderating. The only twelve bunches of hardy perennials came from Mr. G. Garriway, Bath.
Gladioli, shown in twenty-four spikes, were good, Mr. R. Morrow, The Natseries, Leominster, was 1st, and Mr. G Clark, Cardiff, and.
Zonal Pelargoniums in banches were finely shown by Mr S. Treseder; Mr. J. Moore, Cardiff, was 2nd.

The beet twelve bunches of stove and greenhouse cut flowers came from Mr. L. GUEREX, Chepatow (gr., Mr. Chatfeld); Page was 2nd.
Annuals, shown in bunches of twelve, were very good indeed, Mr. A. Pettiarew being lst with some very fin bunohes indeed of Salpiglosses grandiflora, Malope grandiflora, wreet Peas, Lachasholzia croces, Bartonia aurea, \&c' ; 2nd Col. C. H, Page.
Herbaceous Phloxes were fairly good. The Silver Cup offered for twelve Carnations and twelve Picotees brought no competition.
Tabledecorations were a very fine feature, Mesors. Cane Broprers taking the lat prize for a table arranged with flowers and fruit; Messrs. Peelps \& Co., Cardiff, were and. In anothar class, Migy Evar Lewes, Llandaff, was 1st, and aluable sewing-machine, given by the in this class was turing Company.
Bouquets were very good indeed. Mr. A. E. Price, Cardiff, W. Treisider thad hand; Messrs. Case Bros. was 2nd. Mr W. Treisider had the best Bride's, a beautiful one, which was also a warded the Bronze Medal of the Royal Horticultural
Society; Mr. A. E. Price was 2nd. Society; Mr. A. E. Price was 2nd.
Wreaths and croses were superb. It is doubtful if they are done better anywhere than at Cardiff. Mr. A. R. Price wis 1st in both classes; Messrs. Case Bros. was 2nd with a wreath; and Mr. W. Tressider with a cross.
Buttonholes and lady's sprays were shown, and some pretty babkets and bouquets of wild flowers.
Fruits filled a commodious tent. The bast six bunches of Grapes came from Mr. Vircent Stucker, Langport (gro J. Lloyd), who had two of Black Hamburgh and Muscat of Alexandria, and one each of Lady Downes and Madresfield Court ; Mr. P. A. Clitye, Hereford (gr., R. Grindrod), was 2nd having two bunches each of Black Hambargh, Gros Maroc, and Museat of Alexandria.
Mr. T. Gutwey had the beet three bunches of Black Ham burgh; Mrs. Pictor-TURBEVILLE, Swansea, was 2nd. Mr H. PITT, Abergavenny, Wan the only exhibitor of three bunches of White Mascat, taking the 1st prize. Mr. P. A. Clive had the best three blaci, any variety; Mra. Turbevilice 2nd. Mr. Prit had the thres best buaches of any other white, having Poster's Seedling; Mr. L. GUERET was 2nd, with the same. Single bunches were also shown.
Melons ware numarous, being shown in threa classes. who had Black Hamburgh Grapes, Pineapple, Nectarie, Golden Ragle Peach, Apricots, Figes, and Melona, Mr, C. LEe Cimpbeil, Glewston Court, was 2nd, aleo with a good collection.
Mr. H. Prtr was 1st with two Pineapples, having a Queen and a Ripley Queen. Mr. W.J. Buckley was and with two Deseert Appl
CAMPBELL had the beat in but nicely coloured. Mr. O. L. Worcester Pearmain, Lady Sudeley, Mr. Gladstone. Irish Peach, and Quarrenden. Mr. V. STucker. Gladstone, Irish Ribeton, Duchess of Oldenburg. Grand Bichard, 3nd; he had some conical-shaped Apple, conieal in shape, a very hand atreaked with bright rod; Quarrendea,', Early Margaret, and
Eeauty of Bath.

With"inix dishes of Cessert Applees, Mr. G. Oharawhy hed fine lot from five-year-old bush trees on the Roglish Pamadien stock, the varieties Queen, Eoklinville, Lord Suffeld, Pen. good's Nonsuch, Pott's Seedling, and Warner's King; hand, Mr. J. Baseam Bassalig, who had Prince albert and Bir marck, differing from the foregoing. The best dessert Apple was Beauty of Bath, very fine fruit of which took the leading prizes. The best culinary, were Peasgood's Nonsuch and Lord Suffield. Cherries, Currants, Peaches, Nectarines, Apricots Plums, \&c., were also numerously shown in single dishes. Vegetables were very fine. The lst of Messra. sution a Son's special prizes for sir dishes went to M. S. Wruming, Esq., Glyn Neath (gr., C. Foster), a very fine lot. This yona gardener promises well to take high rank as a caltvator and exhibitor of vegetables. General lee, Dim Powis, was 2nd. General Lee took the 1st of Meser J. C. Wheeler \& Sons special prizes for six dishes ; Mr. 7 Richards was 2nd. The 1st of Messrs. Webe \& Soxs' spocial prizes for six kinds went to Mr. W. Moobe, Weavoc; Mr. G . Garratway was 2nd. Mr, E. Rees, Merthyr, took the let d Mesars. James Carter \& Co.'s prizes for the same number of dishes; Mr. A. Tromas, M.P., Cardiff, was 1st with their Jubilee Runner Bean. Messrs, Garraway \& Co, also offered prizes for six dishes of vegetables, Sir E. S. Hul was 1st, and Mr. E. Lewis 2nd. Messrs. Ward \& C 0 . did the same; Mr, G. Shewring took the 1st prize, and Mr. G. Clabke the and. But these are only a few leading features of a wonderful display of vegetables, the cottagers showing very fineity indeed. Miscellaneous exhibits were plentiful, and greatly aseisted the show. A Gold Medal was awarded to Messrs. W. Curbusa \& Sons, Highgate Nurseries, London, for a goodly group of plants arranged in excellent taste. Silver-gilt Medals were awarded to Messrs. Dicksons \& Co., Chester, for cut flowers; to Mr. W. Birienhead, Sale, for a large collection of Fema; to Messrs. Clibran \& Son, nurserymen, Altrincham, for representative and unique collection of succulents; ard to Mr. Phelps, floral decorator, Cardiff, for various floral deemtions. A Silver Medal was awarded to Mr. A. E. Pricg for Ferns; and a Bronze Medal to Mesars. Edwards \& Nuttall, for Edwardian decorations in Ferns.

## SHOW REPORTS, \&c.

Owing to the great prensure on our space, several reporte of Flower Shows, as well as remarke on the Fruit Crops, are unavoidably $k$ p $p$ over till next welk.

## The Weather

(The term "accumulated temperaturo" indicates the ager gate amount, as woll as the duration, of degrees of
temperature above or below $42^{\circ}$ Fahr. for the periad named: and this combined result is oxpreseed in twenty-four hours, or any other number of degrees ler an inversely proportional number of hours.)


The distriots indicuted by pumber in the fint colurel an 0, Scotland, N. Principal Wheat-producing District1, Scotland, E. Principal Wheat-producing Diand, B. 1. Midland Counties; E, Bngland, inclading Londos,
 10. Irelsad, S.: "Ohannel falands.

THE PA8T WREK
The following summary record of the weather throughoal the British Islands for the week ending August 10, is fursion from the Meteoralogical Office :-

The weather during this week remained in ary entlled state, with frequent falls of rain in all parter it

Kingdom. Smart thunderstorms occurred from time to time, and those experienced on Saturday were very severe in many localitios.
"The temperature slightly exceeded the mean in "Scotland, N. and E., but was again below it in all other districts. The highest of the maxima were registered on the 10th, and varied from $75^{\circ}$ in 'England, S., and $74^{\circ}$ over our 'Eastern and Mialasd Counties,' to $68^{\circ}$ in 'Scotland, W.,' and to $67^{\circ}$ in 'Scotland, N.' The lowest of the minima occurred on the 8th, when they ranged from $38^{\circ}$ in 'England, S.W. and Ireland, $\mathrm{N}_{0}$ ' and $39^{\circ}$ in the 'Midland Counties,' to $44^{\circ}$ in several of the northern and eastern districts, and to $56^{\circ}$ in the 'Channel Itlands.'

The rainfall exceeded the normal amount in all districts, the fall over England being about twice as much as the rean.

The bright sunshine was again lese than the mean very generally, but showed a slight excess at some of the Scotch stations. The percentage of the possible duration ranged from 39 in 'England, B. and the Channel Islands, to 26 in the Scotland districte, 25 in "Ireland, S.,' and 23 in "Ireland, $\mathbf{N}$." "

## MARKET8

## COVENT GARDEN, August 15.

Wo cannot accept any responaibility for the subjoined reports. They are farnished to us regularly every Thursday, by the kindness of severai of the prineipal salesmen, who revise the list, and who are responsible for the quotations. It must be remembered that these quotations do not represent the prices on any particular lay, but only the general averages for the week preceding the date of our report. The prices depend apon the quality of the samples, the supply in the market, and the dam, but often several times in one day. ondy from day to , but atten several himes in one dav. KD .
out Flowicbs.-Average Wholegalis Phioes.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Arums, p. 12 blooms | 20-40 | Mignonette, per 12 |  |
| , English, per |  | bunches |  |
| 12 bunches ... | 30 | Orchids:- |  |
| French p. bn. | 08 | Cattleya, 12 blms . |  |
| Boupardias, per banch | 06 | Odontoglossum crispam, 12 blm. |  |
| Carnations, per 12 |  | largoniums, scar- |  |
|  | 10 | let, per 13 bunch | 30-60 |
| Chrysanthemums, |  | - 12 pprays | 0 |
|  | $40-9$ | Pgrethrums, 12 ban. | 2 |
| Eucharis, per dozen | 16-26 | Boees, Tea, per doz. |  |
| Oardenias, per doz. | $30-40$ | - coloured, p.dz. |  |
| Gladioli, p. 12 sprys | 06-1 | - yellow (Maré- |  |
| Lapageria, per 12 |  | ohals), per doz. |  |
|  | 10 | - red, per dozen | $10-16$ |
| Lilium Harrivii, per dozan blooms | 20 | - mixed, p. doz. |  |
|  |  |  |  |
| per dozen blooms | 09-18 |  |  |
| Maiden |  |  |  |
|  |  | doz, bunches ... | $20-40$ |
|  |  | 8 weet Peas, 12 ban. |  | Ozohid-blook in rariet

## Phamts in Pote-Atrrage Wholegalif Phors



Thust-Avamas Wholrsale Prions.

|  |  | s.c. ${ }^{\text {d,d. }}$ |
| :---: | :---: | :---: |
| Apples, per eiove .e. $30-40$ | Melons, onch .o. .no | $10-16$ |
| Figa, per dozen .... 10-20 | Piae-applea, 8t. Ml- |  |
| Grapea, lot quality, | chael, each ... | $20-60$ |
| black, Engliah, lb, 13-16 | Peaches, 1st size, doz | 40-80 |
| - 2nd quality... 0 9-10 | - 2nd size | $20-40$ |
| - Muscats .an 1 6-2 0 | 3rd size | 10116 |
| Vegethrirg,-Atmbage Whourshue Priors. |  |  |
| Beans, Runners |  | 3.d. d.d. |
| Cauliftowere, p. doz, 30040 |  |  |
| Cheumbers, par doz 18-2 0 | - Smann | $40-$ |
| Marrows, veg., doz. 10 | ordinary | $30-36$ |
| Peas, blue, per ib. 0 6-0 9 | - Guerneey \%, | 30 |

## Potatos.

Demand alow at about last wreek's prices. Supplies fairly good of all kinds. J, B. Thomas.

## SEEDS

Lormon: Aug. 14.-Mears. John Shaw a Sons, Seed Merchante, of Great Maze Pond, Borough, London, 8.E., write that, as regards new Trifolium, buyers find that they can this sesson satisfy their requirements on extruordinarily low terms. Sowing Mustard and Rape seed are also exceedingly cheap. For new Englieh winter Tares and Bye there is good inquiry. Whitu Clover seod, Trefoil, and

Italian Rye-grass are held at moderate rates. Bird seeds-are for the moment neglected. There is no alteration in either Peas or Haricots. The Board of Trade Returns give the imports into the United Kingdom of Clover and Grass seeds for the first seven months of this year as $246,480 \mathrm{cwt}$., value £364,063, as against 198,867 cwt., value $£ 502,417$, for the corresponding period of 1894

## FRUITS AND VEGETABLES.

Borovar: Aug. 13.-Quotations:-Onions, 2s. Bd. to 3s. per bag; Horseradish, 1s, to 1s. 3d. per buadle; Applea, is. to 4s. per bushel ; Currants, 2s. 6d. to 5s. 6d, ; Gooseberries, 1s. 6d. to 1s. 9d. per half-siove.
SPITALFIKLDS: Aug. 13.- Quotations:-Carrote, 2s. to 2s. 6d. per dozen bunches; Turnips, 2s, to 2s. 6c, do. ; Marrows, 58. to 6s. per tally; Cabbages, 2s. 6d. to 3s. do. ; Scarlet Beans, 3s. to 4s. per bushel; Peas, 4s. to 43. 6d. do.; Apples, Keswick Codlin, best, 2 s . to 2 s .8 d . do. ; do. Quarrenden, 3s. $6 d_{\text {. to to } 4 \mathrm{~s} \text {. do. }}$
Sthatrond: Augusi 13. EThe supply to this market during the past week has been good, and, with plenty of during the past week has ben good, and, with plenty of
buyers, a brisk trade was done as under:-Cabbages, 18 . to 3 : puyers, a brist trade was done as under:-Cabbages, 1s. to 2 is . to 8 s . per tally: Turnips, 1s. 6d. to 28. 61. per dozen bunches; Carrots, household, 35 s . to 40 s . per ton; do., 1s. to 2 s .6 d . per dozen bunches; Mangels, $22 s$, to $25 s$. per ton; Onions, Oporto, 4s. 9d. to 5s.'6d. per case; Plums, 2s. to 3s. per half-sieve; do., 4s. to $5 s .6 d$. per bushel ; GreenGages, 4s. to 5s. per halftieve; English Tomatos, 3s. to $4 s$. per dozen lb, Mushrooms, field, 3s. to 4s. per dozen lb.; Apples, 2s. to 6s. per bushel; Pears, $3 s, 6 d$. to $6 s$. per bushel ; Scarlet Beans, 3s, $8 d$. to 4s. per sieve; French Beans, 2s. 6d, to 3s, per sieve: Vegotable Marrows, 1s. to 1s. 6d. per dozen
Fahmingdon: Aug. 15.-Quotations:- Apples, Quarren den, 6s. per bushel ; seconds, 4s. do.; Keswick Codlins, 4s. do. Peara, 7s. 6d. per barrel; Green Gages, 6s, half-bushel; Victoria Plums, 5s. per half-bushel ; Orleans do. 5s. do.; Grapes Eioglish, 1s. per lb. ; Tomatos, 4s. per box of 1 d lb ; Cucumbers, 2s. per dozen; red Currants, 2s. $9 d$. per peck; Raspberries, $2 s$. per dozen; red Currants, 2s. 9d. per peck; Raspberries,
$6 d$. per puanet; Melons, 88. per case ( 34 ); Cabbages, $1 s .3 d$. 6a. per puanet; Meions, 8s. per case (34); Cabbagea, 1 s .3 d .
per dozen; Lettuces, 1 s .6 d . per score; Carrots, 3 s . per dozen bunches; Turaips, 3s. do.; Marrows, 1s. 6d. per dozen Spring Onions, 2s. 6d. per dozen bunches; Mint, 4d. per large bunch; Parsley, 3d. do.

## potatos.

Boroval: Aug. 13.-Quotations ranged between 60s, and pos. per ton.
Spitalfields: Aug. 13.-Quotations:-Pink Hebrons, 55s. to 8)s. ; Puritans, 50 s, to 80s. ; Regents, 55s. to 70s.; Kidneys 55 s . to 70 s . ; Reading Giants, 60 s . to 70s. per ton.
STRATFORD: August 13.-Quotations:-Magrums, dark soil, $57 s$. to 60 . ; do., Uplands, 60s. to 73s.; Snowdrops, 75s, to 90 .; Jeannie Deans, 75s. to 85s.; Beauty of Hebron, 80s. to 100s.; Imperatars, 70s. to 75s.; Kidneys, 75s. to 80s. per ton.
Farrivedon: August 15.-Quotations: Putitans, 90s. to 100s.; White Hebrons, 90 s. to 100 s .; Red Hebrons, $80 \%$ to
 9.8.

London Averages: August 14. -snowdrope, 75s, to $95 s$. Puritans, 80s. to 100s.; Hebrons, TOr, to 90\%: Early Begente, 65s. to 76. ; Kidneze, 60s. to Tos; Early Rove, 6b, to 75 s per ton.

Brave Rescue on Oulton Broad.-A aerioua boating accident happened on Suturday, August 10, on Oulton Broad, in which Mias Lee Barber nearly lot her life. Miew Barber and her brother were having a ail up the Broad in their jacht, the Taliaman, when a audden breezo caught the sail and the yacht luffed over. Misn Barber over-balanced herself, and in falling into the water caught hold of her brother and dragged him overboard too. Mr. B. J. Monro, son of Mr. G. Monro, of Covent Garden Market, a vinitor ataying at 14, Wellington Esplanade, Lowestoft, was pasing in a rowing boat at the time, and without heaitation, jumped into the water after Miss Barber, and managed to graap her clothing an she about to sink for the third time. He then wwam with her to a steam launch which was lying near, and also helped Mr. Barber on to his Jecht.

## EnQuIRIES.

## "He that questioneth mweh ahall learn much." -Bacow.

Gardinivg in the Canaries, - Would mome reader kindly inform me in your correspondence column as to the atate of gardening in either Madeira or the Canary Islands, and whether there is any opportunitie for emigrants? Madeira.

Tmanarfi,-Wanted, the name of one or two seed firm in the itland of Teneriffe $F, F$.


* Owing to the large increas in our circulation, we are reluctantly under the necsssity of going to press som, we ar carlior. Our contributors, who well know what this implies, with kindly aid us by sending their comsmunioations as early in the week as possible. Communicatione shorid rench us not later that Wedneeday.
**ing plants or fruits to be manalis.-Correspondents armanding plants or fruits to be named, or asking ouestions comanaing time and ressarch for their solution, must not espect to obtain an answer to their enquiries in the owrrest week. specimens should be good ones, carefrelly pocked and numbered. Tho not more than sixe should be sent at one time. Leaved only, or Lorists varieties cannot, as a rule, be named
A Flum: A. B. Either glazed atone-ware pipes of 9 inches in diameter, or special tiles with rebated edgen, the bottom being laid with ordinary brick on a solid foandation of concrate. Whichever material is used, the flue for 6 feet diatant from the furnace should consist of ordinary bricke, lined inside with fire-bricke of good quality. The covering of the flue, if made of tiles, may be covered with tiles having dish-like depression in them for holding water. In any case the flue should stand free of the walle of the house, and it need not re in ite entire sarface on the foundation, but on bricks loonely placed, any 6 inches asunder. There should be a gradual rive all the way from the fireplace to the chimney. We fear the concrete you purpose making woald not atand fire. Moreover 3 inches in thickness is too great, 2 inches would be the extreme thicknens of the sides and top.
Booss : J. G. B. requires a copy of Newton's Landscape Gardener. He should apply to some secondhand bookseller. We cannot help him.
Cracining of Prach stonk: A. M. M. Ifregular or diaproportionate growth, caused probably by too mach or by too little water at a particular atage of growth.
Evcharis: W. L. Union of two flowern is not uncommon.
Insects: J. Hogan. The larva of the Death'thead Moth, Acherontia atropos. It feeds on various plante, of which Jammin and Potato are the favouriten, chiefly at night.
Kew: E J. H. Write to the Carator, Royal Gar dens, Kew, who will nend you a form of application.
Mrlosw: G.F.G. The preparation inquired about is very efficient, if used with due cation. The formula is as follows:-In 2 quarte of cold water put 1 lb . of flowers-of-aulphar and 1 lb . of quicklime; stand on the fire, and let it come to the boiting-point alowly, atirring the ingredients occaaionally, as they are aure to settle at the bottom. Boil for ten minuter. Stand it aside to cool, and then decant the clear liquid into a stone jar, and cork it tightly. A large wine glanaful to 3 gallona of water is as sufficiently strong mixture for planta with lesves on them. It will make the water resemble milk in coloar. Wait half-an-hour after applying it, then syringe the plants with clear water.
Names of Fruit: J. Andrew. Red Aatrachan Apple, past ita beat.
Names of Plants: Correspondents not answered in this issue are requested to consult the next number. - X. 1, Sedum kamskatikam; 3, Sedum, which we do not recognise from the scrap sent.J. W. 1, Retinospora tetragona aurea, a form of obtuan; 2, Capressus Lawzoniane var.; 3, Thuia plicata; 4, Capreusue nutkaenais ; 6, C. Law-oonianna-T. WO. S. $\boldsymbol{S}_{0}$, Phalarín arandinacea Kerria japonica ; 2, Saxifraga hypnoides ; 3, Trifolinm minus ; 4, Gasphalium uliginosum ; 5 , Galiam verum, fine leaven, vellow flowers; 6 Lapasan commanis; 7, perhape Aspidiam acaleatum; all wretched scraps, shrivelled almost beyond recognition; names, therefore, more or lesa doubtfíl.-J. B. Berkleya (Stoboes) parpures. - H. M. E. Inula dysenterica common Flea-bane. We do not know of an "Indian" Plane. Probably it is Platanus orientalis ; but if you will kindly send un a leaf or two, we will name it if possible,-C.B.S. Eaphorbia Lathyria, Caper Spurge, bat leaves rounder than asali- J. W. should addrens the Editor. 1, Roodanthe Manglesi ; 2, Saponaria officinaliv, double

Howern．－W．J．J．1，Spirres；2，Ceanothas azareus：3，Calycanthus occidentalis ；4，Halimo－ dendrum argenteum ；5，Elæagnus pungens；6， Sxiadopitys verticillata，the Umbrella Pine of Japan．－R．J．H．1，Impatienn fulva；2，Ljai machia vulgaris；3．Ballota nigra；4，Lapaana commanis．－W．E．1，Agathea coslentir；2， Aubrietia deltoides；3，Veronics incana，－K．L． Gentiana aclepiadea，white var．－A．M．Poly－ gonum orientale，Zelkova acuminata．－W．C． 1，Agroatio alba；2，Phalaris arundinacea varie－ gata；3，Oxalir apecien； 4, Oxalis pecies．－J．C ahould address the Editor．1．Datura Stramoninm， parple var．；Rhus Cotinn（Wig－plant），－H．G．L Frankenia lavis．
New Fruit：W．H．，Rochester．The next meeting of the committees will take place on Augat 27． Write to Mr．Barron，Chiswick Gardens，for particulars．
Nonthamptos Show：A．J．Nightingale．Will you kindly atate in what competition the error jou wish corrected was made．

Peach Fruits Deformed：A．P．The fruite appear to have been equeezed out of abape by the branches which might，in rome inatancen，have been pre－ vented by loosening the latter from the shred or tie that mecured them；and those which could not be so freed，thould have been taken off at the first thinning．
Peaf and Runnma Beans：$G \cdot F \cdot G$ ．Gather the young perfect Beans and Pear，ohred the former， and whell the latter，and put them into atone jarn or wooden tubs，in layers，with salt aprinkled over each layer．French Beans should be put down whole．The salt tend to harden these vegetablea， and they will require more cooking than freah ones．The content of the vessels will make a certain amount of liquor；if it be not enough to cover them，add boiled water．A flosting top should be placed over them，and a clean boulder or piece of atone on that，to keep it under the water．If scum rises，clear it off with a clean eloth．Sauer Krant in made in this way，only it is prensed more firmly into the vensel than is necesaary with Beans and Peat．
Spiders in Vineries：Captain．Vaporise the vineries with Richarde＇XL All preparation．No harm will be done to the fruit，but every inect and apider will succamb．
Ther Floricultoral Cabinet：Enquirer．Wae pub－ lished between 1833 and 1848 ，in ten volames．A second serien was insned in 1846 ．The book has an historic value．
The Heaviest Buncu of Grapgs gbown in Grat Britain：H．B．The heavient bunch of which we have any record was one of White Nice，shown by a Mr．Dickion at Edinburgh in 1875．It weighed 25 lb .15 oz ．See Gardeners＇Chronicle for Sep－ tember 18 of that year．
Vines and Mildew：Vinc．The caun is not always discoverable，although certain conditions of tem－ perature and hamidity will cause an attack，but bot always．In some districte it is more common than in othere．It may be communicated to planta under glase by mildewed plants out－of－doorm．The cracking of the akin of the Grape is the in－ evitable renult of mildew，which destroys the elaticity of the akin；and even when the fungue is killed by artificial means，there in no difference． You muat cut out and burn every mildewed berry， and wach leaves an may be apared，and then apply some of the savertined remedies，or the one we give to G．F．G．in thim column．Keep the hot－ water pipee warm，amear them with whitewash， into which a poand of flowers－of－aulphur has been mixed in a bucketful．Afford air by the upper ventilators，excepting in fine dry weather．

Barron Tebtimontal Fund，－Received 2l 1s．from D．T．y． The sum will be handed over to the committee when formed， Comivications Ricifino－D．T．P．－R．W．－C．T．－H．F． －W．R．－R．R．－S．M．－T．A．（next week），－J．R．R． （asat week）．－W．E．（many thanka；potala replaced by lewres）．－Dr．K．（next week）．－G．M，－J．W．W． W．F．－C．W．－T．B．－W．J．Bo－G．H．，Ralíng．－G．S．
 Joh．Y．W．H．- J．- G．W．－A．D．- R．D．- G．S．J．-J ， Johnson．－H．W．W．－F．C．H．－A．L．－Amateur，－8，
 （we eannot undertake soil analysis）．－J．Smith（too merappy）．－R．R－W．R．－F．E．T．- H．J．R．- E．W．C． F．Mco．，Oape Town．－J．D．，Cork．- W．E．W．－W．W．．
 J．V．Sons－W．

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| 450 | \＃ | 杵，，best qualit |
| 520 | － | 5／8 ，extra stout |
| 520 | ص | 34，，best quality |
| 607 | 2 | $3 / 4$ ，extra stout |

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No. 452.-Vol. XVIII.

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Low's ground-compasses
Vieptocarpus, Laing's multifloras
(Supplementary Illustration)

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Peaches and nectarines,-Large Dwart-trined and Halt Standard.trained TTreer, beat
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CUTHBERTS SPECLALITE MUSHROOM C SPAWN. Aimase alike; mont produotivo. Hundredis


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# FORTHCOMING SALES by messrs. PROTHEROE \& MORRIS, 

CENTBAL AUCTION ROOMS and ESTATE OFFICES. 67 and 68, CHEAPSDE, E.C. CATALOGUES FOR ALL AUCTIONS SENT FREE BY POST ON APPLICATIOR,

## Monday and Thursday Next. <br> DUTCH BULBS.

## special trade sales.

MESSRS. PROTHEROE and MORRIS will SELL by AUCTION at their Central sale Rooms, 67
, Cheapeide, London, E.C., on MONDAY NRXT, Aug. 26, and THURSDAY NEXT, Aug. 29, At $120^{\circ}$ Olock each day,
large consignments of NAMED HYACINTBS, TULIPS, OROCUS, AARCISSUS, and other DU COF BULBS, together With white ROMAN HYACINTES and p
Theee early auctions have been specially arranged in lots to suit the Trade and other large buyers.
The Auctioneers will be pleased to enter the names of intending purchasers on their permanent lists who may desire a regular supply of catalogues for these Sales,
Auction Rooms and Offices, 67 and 68, Cheapeide, London, E.C. Friday Next.
IMPORTED ORCHIDS. BY ORDER OF MESSRS. W. L.

MESSRS. PROTHEROE AND MORRIS will SELL as above by AUCTION, at their Central Sale Rooms, 67 and 88 , Cheapside, London,
NEXT, August 30 , at half-past $120^{\prime}$ Clock. On view morning of Sale, and Catalogues had.
Dyson's Lane Nurgeries, Opper Edmonton, TENTH GKEAT ANNGL UNRESERVED TRADE SAL

MESSRS. PROTHEROE AND MORRIS are instructed by Mr. H. B. May to SELL by AUCTION on the Premises as above, on MONDAY. September 9, 1895 , at
Eleven o'Clock punctually, there being upwards of 1600 Lots Eleven o'Clock punctally, there being upw
of unasually well-grown atock, including :-
of unusually well-grown atock, including :of TURNER'S CRIMSON BAMBLER, with growths 12 to 16 feet long, and well ripened.
TREE OARNATIONS, the TREE OARNATIONS, the
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ERIUA HYEMALIS
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PRENISTAS
GRNISTAS
HYDRANGEAS
DRICAENAS, ARALIAS PRIMULAS, POINSETTIAS LAPAGERIAS GARDENIAS
And a Great Variety of other useful Flowering and Foliage Plants; also small Genistas, \&e., for growing on.
May be viewed; catalogues had on the premises, and of the
Auctioneers, 67 and 68 , Cheapside, London, E.C.

## Lee, Kent. S, E.

GREAT ANNUAL TRADE SALE to commence punctually at
If o'Clocs, there being upwards of 1400 lots to sell in one

$M^{1}$LSSRS. PROTHEROE AND MORRIS are AUCTION, on the Bremises, The Burnt A Sons to SELL by Lee, Kent, S. E., adjoining Lee Railway Station, S. E. Railpray, on TUESDAY, September lu, at 11 o'Clock preeisely, without reserve, a remarkably well-grown stock of WINTER-BLOOM-

STOVE and GREENHOUSE PLANTS,
15,000 Erica hyemalis
consisting of


A fine lot of Stephanotis floribunda, and plamosa nana Abutilons, choice sorts to name, Dipladeniss of sorts, inmedia, a large quantity of young Ericas, Iy emalis, gracilis, and other varieties: aloo Genistas and Ferns of sorte, all in 60 -pots, for growing on.
The Procis may now be viewed. Catalogues may be had on the Promises, at the Seed Warehouse, 61, High Street, 68 Chespsice and of the Auctioneers and Valuers, 67 and
N.B. - Intending purchasers are invited to inspect the
atock, which is uuusually well-grown, the feaths beicg par
ticulaxly well set for flower.

## The Nursertes, sonth Woodford.

$\mathrm{M}^{\mathrm{B}}$ESSRS. PROTRMR. JOHR FBASRR devire to notify that thi ANNUAL TR AND MORRIS held ou the Eremises as above, on WIEDNESDAI,
ptember 11.

## The Longland'e Nurserlea, stacuy.

BI ORDER OR MRSERS, GREGORT AND EVANS
ESSSRS. PROTHEROE AND MORRIS desire to notify that this ANNUAL SALE will take

## Avenue Nursery, Bexley, Kent.

FIRST ANNULTOse to Bexley Heath Station,

$\mathbf{M}^{\text {B }}$ESSRS. PROTHEROE AND MORRIS are instructed to SELL by AUCTION,
on WEDNESDAY, September 18,
8000 ROSES, including Sunset, Niphetos, Maréchal Niel, Glore de Dijon, L'déal, Climbing Devoniensis, Safrano, C. 2000 CARNATIONS, includiog Mrs. Moore, Mrs. Reynolds Hole, Malmaison, Germania, Dorothy, Alice Ayers, Duke of Fife, Uriah Pike, \&c.
10,000 Her Majesty Pink
1,500 Erica hyemalis, in
18 's
1,000 gracilis, in $60^{\prime \prime}$ 's
1,000 " gracilis, in 60 's
1,500 Wimoreana, in
8000 Rrica
1000 Ampelopsis Veitchii 1000 Clematis, in $48^{\prime} \mathrm{s}$
2000 Genistas, in $48^{\prime} \mathrm{s}$
Ficus, Ferns, Crotons, \&c.
catalog of the Auctioneers, 67 and 68, Cheapside, London, E.C. Enfleld Highway, N.
TWENTY-SEVENTH ANNUAL TRADE SALE of STOVE

$M^{\text {E }}$ESSRS. PROTHEROE AND MORRIS are instracted by Mr. John Maller to SELL by AUCTION, at the Brimsdown Nurseries, Green Sireet, Enfield High-
way, No, on THURSDAY, September 12, at 11 o'Clock punctually, in consequence of the uausually large number of 1500 lots, without reserve,

About 60,000 Remarkably Well-grown
STOVE and GREENHOUSE PLANTS,
mostly in No. 48 pots, and fit for imm
Consisting of 20,000
WI NTER-F T, O WERING HEATHS, including Hyemalis, Gracilis, Wilmoreana, Hybrida, \&c including ${ }^{2,000}$ TREE and OTHER CARNATIONS, ancluding Winter Cheer, Mrs, Moore, Joliffe. La Neige, \&c
Also fine lot of Mdle. Thérese Franco, Uriah Pike, \&c.

2500 TEA ROSES IN POTS,
including 150 Paul's new Climbers, Alister, Stella Gray, and
Carmine Pillar; Crimason Rambler, Bridesmaid, Bride,
Miphetos, C. Mermet, Maréchal Niel, Climbing Niphetos,
Whoire de Dijon, Madaméde Watterile, Perle des Jardine 1,000 Ferns, Adiantums, Poly- ${ }^{2,000 ~ A m p e l o p s i s ~ V e i t c h i i ~ a n d ~}$ podiums, \&c.
5,000 Genista fragrans $\quad 100$ Deutzia parviflora 1,000 Zonal Geraniums,
and leading varieties
1,00) Grevillea robusta
5,000 Solanumes, exceptionally
300 Aspidistras
500 Crotons,
1,000 Palms, in Fariety
200 Bougainvillea glabra and Sanderiana
-
600 Epacris, to name
500 Veronica Reine de
1,000 Passifloras, large quantities of Ficus, Begonias, Poin Hetias, Euphorbia jacquinefora, Callas, Aralias, Abutilons, Taxonias, "Stephanotis, Allamandas, Dipladenia Boliviensiv, and others.
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CELEBRATED BEECH LAWN COLLECTION
ESTABLISHED ORCHIDS, WITHOUT THE BLIGETEST BESERVE, BY ORDRR OF W. R. LEE, Esq.,

Who is relinquishing their cultivation, in consequence of

MIESRRS PRotakroe axd Morris aro favoured with instructions to SRLL the above renowned Collection on the Premises, on TURSDAY, Sep-
tember 24, and TWO FOLLOWING DAY, at 12 for hatf-past
$120^{\prime}$ Clock precisely each day. $12 o^{\prime}$ Clock precisely each day.
The Collection is justly calebrated for the large number it contains of plants of exceptional merit and rarity, the whole Also the OPENHOUSE
Also the GREENHOUSE PLANTS of Sorts, FERNS, the erections of Six Greenhouses, Saddle Boiler, 1400 feet of Hotwater Piping, chiefly 4 -inch, Frames, Barrows, Lawa Mower, Garden Roller, Flower Pots, Ganden Seat, Garden Roller,
May be viewed by appointment.
May be viewed by appointment any day prior to the Sales. Catalogues may be hat of Mr. Thomas Billington, the Head Gardener, on the premises, and of the Anctioneers, Valuers. N. B.-The Orchids have been exhibited in Ton, E.C.
chester, and have abtained many First London and ManMerit, F.-C. C.'s, Gold Medals, ind extrin prizes wherever
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## The REMAINING PORTION of the

## WILSON" COLLECTION OF ORCHIOX

MESSRS. PROTHEROE AND MORRIS, E.C., on TUESDAY and WEDNESDAY NEXI, Anget and 28, at half-past 12 の'Clock each day.
The late Mr. A. Wilson, of Westbrook, Sheffield, was a colt lector of all that was good in each and every class of Orchith and many fine gems will be offered, full descriptions of whith whole remaining lots of this famous Collection, which, tog the with a grand variety of ESTABLISHED ORCHIDS, includius some of the rarest and most beautilul hybrids known, from the WITHOUT THE LEAST RESERVE.
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Sobralia Kienastiana
Cattleya Reineckiana
Wagneri
Ojontoglossum
num
Cattleya Gaskelliana alba
Leelia elegans
Cypripedium Morganise Bur
Odontoglossum delotoglossum
coronarium
aspersum
Lélis elegans Blenheimensis
Lælia elegans Bluntei
". "superba
Lycaste Skinneri alba eupali
Cologyne cristata alba
Lycabte Skinneri imperator
Deadrobium nobile Sander
Odontoglossum Andermer num vars. mulus
Schomburghia lepidiswime
The plants offered by Messrs Sander \& Co. are exceptionally fine. Every plint offered is in robust health, and some of the
Phains Owenianus
Marthee
Cooksonii
Phaio-Calanthe Arnoldibe
Leolio-Cattleya The Hon. Mrs.
Cattleya Miss Measures
Cypripedium
Bollea Schroderiana
atheya corbiellana
Leelia Oweniana
Cymbidium Winniannm
Dendrobium Johnsonise
Cattleya Rex
Calanthe Bryan
Sandnurstiana
Dën'robium splendidissimum
New Dendrubinua
vew
"̈ "̈ superba
Mastovallia Rebecc
Courtauldia
Angracum Eichlerianuma

Coolozyne Dayana Angræcum serquipedale spripedium grande Maynardii
Coungianum Wilsonii
*̈lia Wilsonil Schroderias
Sanderiana
Lycaste Skinneri vars.
Cattlega, labiata vars.
Cypripediu an Cahuzac
Phaius Sanderianus
Epidedrum Randif
Laelia Gouldiana
Miltonia vexillaris perfection
rubellum
Cgpripedium nitidissimutial Dẻd Albert Truffaut
Eulophiella Elisabethe
Eutophiella Elisabothex Lhelia anceps Humblovi Phsius Humblout
Odontoglosiqum chiriquan
gloriosum albam
obillm Uwenianu no 296 uficum, \&o

Many other choico plants and varieties are enumerated in the Catalogue, and about 100 lots of IMPORTED ORCHED of be included in the SKCOND DAY'S SALE, consisthe hildis. distinct-looking Oattleya Epecies; Cypripedium Rour Specie: num, specially selected imported masses; a Phas givatteuva, Hemanthus Kalbreyerii, \&o.
The whole to be SOLD, without any Reserve, on TUSBAI August 27, and WEDNESDAY, August 28, 1893.

On view morning of Sale, and Catalogue had.
Upper Holloway.-Unreserved 8ale.
IMPORTANT SALE of Valuable STOVR and GRERNHOUS EXBIBITION and DECORATIVE PLANT,
By Order of Mesgrs. B. B. Wiletams \& Sor. Who, with a view to removing their Nurseries to more a portion of their Freehold Land for building parposes.
The following will be Land for building parposes. SPRCIMEN and HALF-SHRCTMEN PLANTS, and aloos large selection of GENERAL NURSERY STOCK, Damdito Greenhouse Rhododendrons, Azalees, Cliveins, Oanedime Lrotons, Tree Ferns, Palms, Kentias, ac. Bugainvilleas, cenver cendruns, Handanus, \&e., and a larg"' assortment of can, AnDraceenas, Crotons, Araucarias, Am sylhs, Pancratiumg, goto thuriums, Marsntas, Orchids, \&on, which will of Nur Upper Holloway, N., by
DESSRS. PROTHEROE AND MORRIS, oit Ho o'cloch each day.
May be viewed any day prior to the Sale. Cataluyned 68, Cheapside, Londen, E.C.

## SALES BY AUCTION

WEDNESDAY NEXT.
$G R E A T$ TRADE SALE of $B U L B S$
A SPLENDID IMPORTATION OF

## DUTCH BULBS,

comprising choice named Double allectiog HYACINTHS TULIPS, CROCUSES, as fine collection of NARCISSUS, SNOWDROPS, SCILLAS, SPANISH IRIS, sc., consigned
direct by well- known Nurserymen, and specially lotted for dirset by well known Nurser
the Trade and Private Buyers.
Thirty-six Cases of Early Forcing Bulbs from France, Rarly White ROMAN HYACINTGS, Blue and Pink ITALIAN CANDIDUM LILIUM HAREISI, from Bermuda. TUBEROSES, FREESIAB, LEN
MOWERS.
M $^{R}$. J. C. STHVENS will SELL the Street, Covent Garden, W. C. On WEDNESDAY NEXT, August 28, at half-past $120^{\circ}$ Clock precisely.

Vale of Clwyd, near Denbigh, North Wales. SALE OF FREEHOLD NURSERY GROUND.
TESSRS. DAVID ROBERTS AND SON I. will SELL by AUCTION, at the Bull Hotel, Denbigh, on WEDNESDAY, August 28, 1895 , at $30^{\prime}$ Clock in the afternoon, subject to conditions, all that FREEHOLD FERTILE
LAND, known as the "BROOK-HOUSE NURSERY," 1 mile from Denbigh, containing about 81 acres, with Greenhouse, Stovehouse, Fruit and other Trees and 8 hrubs
The Property will be offered first in One Lot, as a going concern, and if not so sold, will be offered in seven Lots, as
shown on Sale Plan. Denbigh has a first-class station on the f. \& and 2 bours 10 minutes from Liverpool.
Plans and Particulars from the Auctioneers, Corwen, Denbigh, and Llangollen; Messrs. LOCKWOOD AND CO. Wrexham ; or Megrs. POYSER AND SHUTER, Solicitors, Wrexham.

WANTED, a small MARKET GARDEN Bondend House, Upton-
TO BE SOLD, the LEASE of a NURSERY. 1 Two Houres, 100 feet long each, 2 acres of Ground roing a good trade.- - R. M., 41, Wellington St., Strand, W.C.

TBE IET or SOLD, a FREEHOLD Frontage, 6 Glasshouses, 100 feet by 12 , exceptionally well heated, in good working order.-For further particulars, apply to W. Á. SHAW, Hextable, Swanley, Kent.
To Nurserymen and Florists commencing business.

HAMPTON-ON-THAMES, on The Marling PARR FsTate, free from London fogs, a deep rch
the favourite neighbourhood for Growers, FRERHOLD LAND for SALE, on easy system of payment. Frellent sites for residences, - For full particulars apply to Mr. FREDK. G
HUGHES (Soreyor $\frac{\text { BUGHES (Survegor), the Estate Office, Hampton-on-Thames }}{\text { C O U T H P OR T.-Gentleman's 13-roomed }}$ Detached HOUSE, all modern conveniences, with Vine ries, 120 by 18 , containing about 200 young Canes in full heat; Gardens, and Stables. Frames, sce. Top and Rothom-ill-health. - Apply, HATCH, 8onthport; or BATEMAN, Woodlands, St. Mary Church.

$\mathrm{T}^{0}$BE LET, with immediate possession, in -Six Provincial town, a SMALL NURSERY ( (Ioing concern). House of Graper, in good condition; Three Tomatos; good mile for either. For further particulars, apply to-
FLORIST, 49 . London Boad, Grantham-
T FLORIST, 49, London Boad, Grantham.
1 LET, on Lease, on Main Line, $\frac{1}{4}$ mile from ut 16 acres of LAND (12 acres planted with Fruit Trees) Glass-house, 40 feet by 12 feet. Possession at Micbaelmas. (hurchman and Sons, Horsham, Sussez.

$\mathrm{T}^{0}$Kent.-12 Mues from Covent Garden. 6 Large Greenhousea: well heated, Convenient Dwelling House and Oatbuildingses, Good Local and Market Trade done Immediate posesssion. Ront, \&so. On Lease. Full particulars of PROTHEROE AND MORRTS, 67 and 68. Cheapside, E.C. (Fo. 8,006.)

$T^{0}$To Frult Growers and Market Gardeners. Middlesex in the neighboarhood of Enfield, Pear, and Plum Trees, and Gooseberry and Currant Bushes; or thereaboutarden Ground, containing altogether 50 Acrea, session Mirhaelmas. Apply, for rent and outber particulars, to Mesms. WTTHERS AND WITHERS, Maltravers House, Aruadel Street, Strand, London, Solicitors ; and W.C. RLMS, Req., 18, Lower Phillimore Place, Surveyor.

WANTED, a good BOOK on LANDSCAPE


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Lgelio-Cattleya Albanense (Cattleya Warnerii $\times$ Leelia grandis Imet tenebrosa
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## Gardeners' (Chronidle.

SATURDAY. ATGUST 24, 1895.

TIIE ROSE GARDEN IN AUTUMN. VARIOUS are the Rose gardens of England, seldom do we come across what may be called an ideal one. Some are cramped hy want of spaoe, and, although their ambition may be great, they are unable to gratify it; others are formed to meet the wants of an exhibitor, and, while it is perfeotly true that, if you want to grow Roses of first-rate character, you must be guided by the prinoiples, and follow the methods adopted hy that olass of growers, we are fain to confess that they do not conform to any esthetio ideas of garden beauty. There are others, again, in which no respect is paid to regularity; their owner does not know much about them, and tells you that be only wants a quantity of blooms, and it is in suoh gardens as these you are apt to come across flourishing bushes of Manetti. The grouping of Roses, that is, the employing a good number of the same variety, is one of the points on whioh, if there were spaoe and mesns, one would very strongly insist. Sometimes one does come acrom beds of Mrs. John Laing and other wellknown flowers, and the effeot is very oharming ; bat as it was not given to everyone in old times to get to Corinth, so there are heights in Rosegrowing to which hamble mortals cannot arpire. But there are some things whioh are common to all kinds of Rose-gardens, and suggestions which are applicable to all; and the Rose-grower an he looks round apon his garden may be thankfal that such things as Roses in autumn can be written about-there was a time when wo had nothing of the kind. Hybrid perpetasls (a very misleading name to be given to them) were anknown; there are many of them which, while they have a good bit of the hybrid, they have very little of the perpetual in them-but, nevertheless, there are many which give us blooms after the first flush of the summer flowering is over, leading us to pleasant reminiscences of the triumphs of the past, and cheering us with hopes of the fature.
Then we were without those lovely Roses which Philip Noisette and the Frenoh raisers generally have added to our gardens in the beantifal Noisette and Tea seotions; then a few of the Bourbon Roses were hailed with gratitade when such varieties as Soavenir de la Malmaison, Mrs. Bosanquet, and Sir Joweph Paxton favoured us with flowers. But now when we go out in autumn into our Rose gardens we are surrounded with lovely blooms of the many varieties of these classes which the last thirty years have added to our colleotions. Shoot succeeds shoot, and flower after flower opens, and until the cold grip of frost lays hold upon the bushes they never cease to enliven our gardens; it is true they are not brilliant in their coloars, and so there is not the blaze amongst them that proceeds from a bed of bybrid perpetuals (indeed, we do not want that),
but it is the exquisite and delioate coloaring into which no orudity or coarseness enters that constitutes one of their chiefest oharms.
The extraordinary character of this season eem: to be maintained throughout, and now a apell of hot sutumnal weather has set in after the heavy rains which we experienced in the latter part of Jaly and the earlier part of Augast, we seem to be assured of a plentiful apply of flowers. For the past few years I have adopted a plan which seems to metothoroughly nit the Rose, namely, that of cutting out the old wood which hase flowered and thus done ita daty, for if the planta (of course, I am speaking of dwarfs), have done well, they will have sent up strong shoote, which will form the ataple of bloom for next year. In fact, it in very much the wame zort of treatment to which we sabject our Raapberrien, and for the aame reason the old wood is aselesa, and its removal admits free circalation of air to the plants, and thus tend to the ripening of the wood. When these new shoote are very long, it will be necessary to stake them; but as one very mach objects to such aids when they can be dispensed with, it may be afffcient, unless in very exposed situations, to top these long shoots, and thus not give no much play to the wind. In these suggestion I have had in view those dwarf plants which are cuitivated in the orthodox style. Where it in intended to form large bushen, and get a quantity of flowers irrespective of quality, the plants may be left to grow more naturally, although the praning-knife will be r quired to keep them, to a certain extent, in shape. Where malching has been adopted in the anmmer monthe-a practice puraued by nome, eapecially by those who have exhibitions in view-it it will now be time to remove that unsightly addition to Rone garden. I have been into some Rose gardens from which all appearance of beauty was taken away, and the whole thing was auggestive of a farmyard with Roses planted in it; if there be any of this malching now remaining it ought to be removed. Roses on walla will now require some attentionlong shoots will mate their appearance ; these ought to be nailed-in, and provision made for removing the old wood. Most of these wall hoses will probably be of the Noisette or Tea sections, and with which of these the Gloire de Dijon race is to be clamed it would be difticult to say, for the origin of the illantrious mother of this family is obscare, it having come up accidentally in a walk of the garden of Mons. Jacotot at Dijon ; bat in all probability it and some of its progeny ach an Madame Bérard, Bonquet d'Or, Belle Lyonnaise, Madame Trifle, and Baauté de l'Europe will be foand amongat these wall Rosen, for I can hardly call them climbers, becaune they do not climb. I never can apeak of Maréchal Niel as a astiefactory Rone for a wall, the pendent habit of ite bloomsexposing simply the discoloured outhide petala ; in the same way, I think, objection mast be taken to W. A. Richardson, not for the same reason, but because ar far as my experience goes, it is apt to lose ita brilliant colour and become simply a white Rone. Why it should do so I cannot anderatand, because I have seen it mont beantifully coloured under glass, notably at Lord Bravsey's \& Normanhurat, where the heat would, of coarse, be rouch more intenee than that on a wall. Some people, however, my that there are different strains of it, and that there are some which always will go white; if so, the sooner they are discarded the better, for it is useless in that form, while in its normal condition there ir no greater favourite, expecially with the ladie:
This month ia that in which Rose growery taide atock and cowsider what alteration they shall make, and what new varieties they ahall obtain; a great taste for what are called garden Rosen, and more especiall the ingle or semi-doable varieties, has been developted of late years. It would be a great pity if this taste were checked, but I think thowe who are contemplating an increane in their ntock of thene should in increane secollect that they are of a very Heeting character. The single Rones, with the exception of Macractha,

Which now and then gives a late bloom, are truly summer Rones; while Lord Penzance's hybrids of the Sweet Briar partake very much of the name character, and as yet, so far as I have seen, develop nothing of a tendency to second blooming, although I am informed that some of the newer varieties have more of this character. My own striped Briar, "Janet's Pride," which seems to be increasing in popularity, gave me last year a considerable number of necond blooms, but it cannot be depended upon to do this; therefore I would aay, to all who intend to increase their collection of these varieties, make up your mind beforehand as to how you are going to use them, and consider when you are planting ont in your mind a Rose-garden for next year whether you are going in for effect, or aimply for the enjoyment of the individual flowers.
I do not here enter on the subject of new Roses, which I think it would be well for our grower: to add to their collections, because, until the announcements are made, we do not know what they may be. I speak, of course, of those rained by our home growers, for we have long ceased to feel much interent in the long, wordy and fattering descriptions of the foreigners, few of which now seem to find a footing on our shores, nurserymen and amateara alike seeming to think they are not worth all the troable of growing, propagating, and then perhaps throwing away; whereas in the cene of our own raised flowers, we have many opportanities of seeing them, and are guided in our melections not by what we have been told, bat by our own knowledge of them, either in their growing state or when staged for exhibition. Wild Rose.

## New or Noteworthy Plants.

## DENDROBIUM (PEDILONUM) GLOMERTFLORUM, $\mathrm{Kr} z l_{0}, n$, sp.*

The habit of the plant in promining, but the pale rosy flowers are comparatively amall and inaignificant. As they appear in dense clusters of 1 to 5 on each stem, the effect is rather agreeable, neverthelen the plant cannot be ranged among our garden beauties. It flowered at Messra. F. Sander \& Co. St. Albans, July laat. Dr. Fr. Kränzlin.

## Orghid Notes and Gleanings.

## AERIDES SANDERIANUM,

Fashion has as atrong a hold upon gardenera and their employers an upon ladies and their dreseas. Even in the cultivation of Orchids, Fashion asserts her away, and the beautiful and gracefal genera, Vanda, Aërides, and Saccolabium, are now-a-daye neglected. I send you a raceme of the lovely Aëriden Sanderianum to prove, were it needed, that thin genut is well worth taking pain with. Not only are the racemes and individual flowers beantifal, but the habit of the genus is very graceful, and the numerona apecies preaent marked distinctions. I may remark that Willisme' Manual devoter only thirteen of its 800 pagen for Aëriden, while it allote ninety to Cypripedia! T: $L$.

## Cyphiprdium selligratar,

Mr. W. Ball kindly sends a flower of this apecies with two lateral sepals, one petal median and opposite the lip. This reveraion to a two-membered flower in not uncommon in Orchidn. Was the ancentral Orchid of this nature?

[^13]Cattleya Gaskelliana,
To the courtesy of Mr. W. Macdonald, Pitlocin we are indebted for some carious specimens of thi plant. There were three flowers on the raceme, ena one normal except that the inner half of each appal was lip-like, thus affording an instance of partial petalody of the sepals. We understand the plat flowered in a imilar manner last year.

## THE DAISY, BELLIS PERENNIs

Your illastration of Daisy The Bride recallan my mind the once prominent part Daisies und th form in our spring bedding. The lover of the flower will not have forgotien the great diaplay o spring flowers at the late Mr. Qailter' gromis Lower Aston, during the year 1873, in which the modest Daisy played so prominent a part. I haven vivid a recollection of it now a I have of the boile trials, and the ladie falling over the muddy plawte, scrambling to get a view of the Saltan of Zansime Here the Daisy and Viola tried to outrie each othe in quantity and attractiveness, but the Daiay took the lead. Nowhere way the Daiay to be eeen in med quantitie and perfection an at Aston; it not ouls formed long vandyked lines, ripzag and diamond beds, various other denigns, but filled ap in mam some of the most prominent placen in the grounde Now in some of our prominent pablic gardens whem flower are planted in the beds to make a apring display, the Daisy is not to be found, ae, for inntance, Hampton Court, where nearly the only apring flown are about three colourm of Polyanthas, or banch Prim. rose, more properly called; these are very well dose, and make a good dieplay, but every one geta tird d the same thing year after year. Now, if some of these beds were edged with Dainien, Violan, Aubristim, \&ce, they would certainly prove more interenting ind attractive. Even carpet-beds could be made of tho different varieties of Dainies, which, I ventare to uy, would prove more interesting and be betterapprecind than this one solid mass of bunch Primrosen, as variety is charming at all times, and we have plenty of nato rials wherewith to make spring bedding charwing One would think that apring beddiag is lonirg ground, for we hear very little of it now-even thi three champion places, Aston, Cliveden, and Belvoir, are silent. Now the Daisy is a very important littio thing in spring bedding, easy of culture, a genert favourite, and can be adapted for almont any rart of artistic work; it is true we have not much varisty in colour, but enough for most parposes required fos 10 uturdy a little grower, and I would much like to see it more brought into caltivation again. I had s fine collection at both Osberton and Eaville jut formed when I left, and spring bedding war given if I had, at the latter place, all the varieties I could pro cure, variegated and otherwise, and found amplo colour and variegation with the aid of other thiret for all my requirements. It neem quite nanecemins to give any inatructions as to its calture, being ouly a Daisy-but atill a few remarks respecting it mily not be out of place. The best soil suitabie arm Daisy would seem to be a good allavial loam, mo by drained - a too light soil is soon penetrator by drought. Propagation is best done in the sprime dividing the roots an noon as they have done flomerime selecting a rather wady pot for their munally quarters. Numbers of Daision are lost sumaty through not sufficient care boing taken of them ant their removal from the flower-beds to the remed Daisie are apt to degenerate if they are permitud remain long unremoved; it is beat to have frean eant up every second year, planting them in from in prite For seedlings with a chance of variety, now bed il in a pan or box, prick off the aeedlings into plath summer, attend to watering and weeding fower sol and by the autumn many of them will fort bat continue doing so until stopped by frost, ther start again al soon as the milder wean should permit. From these plantw the beat E, four selected and the remainder thrown awly, E. Bu Lyne, Chertsey.

## THE FRUIT CROPS.

[For Tabulated Summary, see p. 119.]

> (Cont inued from p. 152.)
2. ENGLAND, N.E.

Nobthumberland.-The Apple crop is quite extraordinary, with the trees in plendid health. Pears on walla irregalar. Plums on walls and in the open are very fine, eapecially Denyer's Victoria. Of Gooneberrien, red Currants and Strawberrie the crop is quite exceptional, finer than we have had for many years. George Harris, The Castle Gardens, Alnwick.

Apples an average good crop. Stirling Castle, Ecklinville, Hunthouse, Domino, and a few other varietiea are bearing heavy crops. Pearu not so good. All amall fruit are good. Strawberrie and Rappberrien are excellent; Raspberry Saperlative is first-class variety, it is the heavient cropper of any I have tried, and it meem to withatand dry weather betcer than any other. Goosebernies and red Currants enormone crops. All treen and bushes are very healthy. David Inglis, Howick Hall, Lesbury, R.S.O.

Durham,-Apples and Pears are about the average, on some trees none at all. Thim applies to the early llowering aorts, the cold east wind having cut off the blosoms. Strawberries were a bad crop, owing to the dry weather, and Raspberries are few, the evere winter having killed most of the canes. The greenfly and nmut was very bad, but of late the thunderstorm: have washed the frait. $R$. Draper, Seaham Hall.

Yorkshire,-Strawbertien in thia district were a heavy crop, excellent in quality, and at thi place they were ripe in abundance by the middle of June, which is very early for this district. Laxton's Noble was the first to ripen, and the crop of it was a heavy one, the frits large, and owing to the dry weather the flavour was good. It is an excellent variety and stands the drought well. Next in the order of ripeniag was J. Ruokin, the crop heavy, bat quality poor; Black Prince came next, a heavy crop, and excellent in quality; President and Sir J. Paxton were large and good, and the latter kept in bearing very well; Elton Pine, British Queen, and Aberdeen Favourite, were fine cropa, of good quality, Morellon and sweet Cberries carry heavy crop:; Apricota are a thin crop outaide, but there is an abundant crop in our open shed. Of Pear-trees on wall., Easter Beurré and Bearı́́ Diel have nice crops. Lord Saffield and Keswick Codlin Applen have good crops of frait. B. Wadds, Birdealk, York,
-- Strawberrien have been an exceptionally heavy crop, the individual frnits large, and of excellent flavoar. Applew will be plentiful with us, the younger trees bearing very heavy cropi of fruit where they had ahelter from the cold cutting wind which prevailed during the flowering time. Damana are abundant, but the frait is likely to be amall owing to their great abundance, $J_{0}$ Riddell, Castle Hovoard Gardens, York.

Applen showed remarkably good blonom, but were aeriously affected by the cold winds and atorma from the north and north-east about the middle of the month of May. In favoured epota Apples are, perhapi, above the average. Pear and Plams showed only moderate blossom in this diatrict. Cherries nowed plenty of blossom, but the cold clayey natare of the soil is not adapted to their saccessfal cultivation; only Morellos do well. Apricots, the heavy crope of which so exhauted the trees daring 1894, and the growth being made late, did not get ripened. Small fruit are excellent, except black Currante, which are almost a failure. J. P. Leadbetter, Tranby Croft Gardone.

The cold, wet, sunless autame of 1894 has left ite mark on the fruit crops of 1895. Io apring the firat aurprise wan the almout total sasence of Apricot bloom. Peare and Plums did not carry nearly their uanal amount of bloom, and it was amall and weak, not eithing well; a few trees on walls with a south aapect are bearing hemv cropn. Applen bloomed fairly well, but the crop in not in
proportion; the earlier varieties appear to be carrying the beat crops. Strawberries most abuadant and good. Gooseberries, Raspberries, red and white Carrants extra good. Black Currants not so pleatifal, but clean and good. Willian Higgie, Stanwick Gardens. Darlington.

- The very hot and dry pring weather has much benefited all ontdoor crops of fruit. Apples are looking uncommonly well, especially free-growing culinary varietien, which is rather remarkable after the plague of caterpillar we had; but thanka to the use we made of the garden hose, we cleared this plague off. Pears, too, are promising well, also Plums, Cherries and Strawberries. I never saw more or better fruits, bat the latter, through continued heavy rain, rotted ere they ripened. J. Rubert Dawes, Temple Neusam.

Applea in this district are a good average crop. A few kinde, viz, Lord Saffield, Keswick Codlin, Prince Albert, Nonsuch, Yorkshire Greening, Eanter Pippin, Greenup' Pippin, and Tower of Glamia for instance, are carrying heavy crops. Peara are a fair average crop, both on walle and standard. Plams have fair crope, and a few have full crop:. The Gooseberry bushen were dreadfully infested with caterpillars of the sawly; I never anw them so bad before. Of Strawberrien, President and Vicomtense H. de Thury were by far the best out of many varieties. J. Hughes, Wentworth Woodhouse Gardens.
Cambridgrshire.-The fruit crops here are, with the exception of Plams and Apricots, very good. Apples are the best crop that has been for some time. Pears were nadiy thinned by the cold winds, and are nothing near a crop. Plums also nffered from ame cause and through the dronght. Gooseberries and late Strawberrienare very mall. Peache and Nectarines are, as unaal, very good, although a lot of the unripened shoot were killed by the frost. Apricots were spoilt from the same cause. Qainces are a crop. Taken on the whole, it is the beat frait crop that has been for some years. J. Hill, Babraham, Cambridge.

- The fruit crop in this district is good on the whole, with the exception of Pears; Lane's Prince Albert being by far our best cropning Apple, Ecklinville Seedling coming next. The red-spider is a very bad plague in most gardens hereabouts on Grooseberries, the result of neglect, there being plenty of water in this district, and any ordiasry force-pump on wheels, with a small pipe and a tap to regulata the quantity of insecticide, would anawer. I find petroleum the best thing to drem the trees with, and in ita paanage through the pump and a few lengthe of the hose it becomes well mixed with the water. It is fatal to the black Curraat-hud mite. Wilson C. Smythe, Upwell House Gardens, Wisbech.
Esscx. - Applen are remarkably good, the treen clean and healthy. The great drought stopped the growth of these and all other large and amall fraita, but all are now going on healthily. The Stramberry crop was exceptionally good, and all mall fraits abundant, but they affered greatly from drought, and on that account Gooseberries lacked flevour. Jas. Douglas, Great Gearies, Ilford.
Lincolnshire,-Apples upon the whole are a good average crop, although in mome casen it is a very partial one, the severe atorms of May 17 and 18 having greatly damaged the blomoms and foliage where exposed to the full force of the wind. Pears are a very light crop; Apricots, scarcely any of the trees suffered much daring the winter; and Peach and Nectarine trees on a south-eant wall are bearing abundantly. All treed are now making good and healthy growth, not having suffered so much from the drought here as in soms localities. The rainfall for June was 270 inches. The Gooseberrycaterpillar is very troublesome. E. F. Hazelton Broaklesby Parle Gardens.

Sufforis. - The Apple crop in thil district is at only under the average, bat is very partial. Here and there a tree carries a fairly good crop, while on others not a fruit is to be meen. I consider the
failure is entirely owing to the continued frost and catting wind that prevailed during the fowering period, as all the trees were masses of bloom. Years are thin, but the fruit promises to be good. Apricots are a failure. Peaches and Nectarine are very good. Plams thin, bat Cherries are a good crop, both dessert kinds and Morellos. Strawberries were excellent. All emall fruit are very abundant. $H$. Fisher, Flipton Hall Gardens, Bungay.

Apples variable; most old treen well clothed after month of dropping, which palie the crop up to an average. Peara mach whipped by winde, as well as checked by droaght. Pinme decidedly scarce ; few blooms, which set fairly well. The only fall cropt of the Plum family are Bullaces, the black, where grown, being at heavily laden as the common Bullace. Peacher and Nectarinea are a full averagn, but Apricots are thin. Gooseberries, Carrants. Rasperrien, extra cropa, amaller than usual from lack of rain. Walnut trees much injared by the February frosts; very few Nute. D. T. Fuh, Bury St. Edmunds. The everity of the winter months, coupled with the low night temperatares which continued up to the end of April, had a diesstrons effect on fruit crops; the growth of fruit trees was slow and weak, on Apple treen there was a prevalence of insect which riddled the young leaves, Peari also affered, then drought aet in, and daring the monthe of May and Jane only nine-tenth of an inch of rain fell. In some casea Apples that appared to have set freely in spite of unfavourable conditions now dropped off, strewing the groand, and those left refused to grow larger. Peart also fell off, but at an earlier atage. Strawberries muffered greatly on light woil, the frait was mall, and almost cooked on the plants when ripe. Cherrien have been clean and good. Plams are a short crop, and Apricots almost a complete failure. John Wallis, Ot well Park Gardens.

The fruit crop of 1895 promised to be an exceptionally good one, but the long contiaued drought was dissatrous to early Pears, and moat of the fraite dropped. Marie Looine, Doyenné da Comice, Bearré Diel, and later varieties of Peare are likely to be very good. Apples, eapecially the calinary varieties, are a fair crop and very good. H. Rogers, Rendlesham Gandems, Woodbridge.

## 4. MIDLAND COUNTIES.

Boceingamsmine-Although the drought interfered in some degree with the Strawberry crop, in other respects it did bat little mischief. Among notable eabjects in this department, the early varietie of the Peach demand a remark. Early Beatrice, Early Amsden, Waterloo, and Alexander have produced excellent crops of frait of good aize and quality-in fact, they ripen outside even before our good old early varieties with the asnistance of glass; these are, therefore, an acquisition aufficiently great to be appreciated. G. T. Miles, Wycombe Abbey.
-. Generally speaking, the frait crops of South Backe are well up to the average. Applez in some districts are over average; here we have a fair crop. Of orchard tree Quarrenden, King of the Pippins, Coz' Orange Pippin, Datch Mignonne, Welliagton, Fearn's Pippin, and Starmer Pippin are heavily laden, while Blenheims and Ribstoas and wome others are very thin. Of a number of bash-trees on the Paradiee atock, Lord Growvenor and Grenadier, two early cooking Apples, invariably crop heavily, and this year look remarkably well. Other kinde also bearing good crops are Ecliaville, Pott's Seedling, Lord Derby, Warner's King, Cox'e Pomona, Cox's Orange Pippin, Worcester Pempain, Prince Albert, Stoae's Apple, Ribston, and Bramley's Soedling. Pare on walle and bath- treen are scarce, whilo a few orchard-trees, Beań Clairgma, Loaise Bonne of Jersey, and Autucan Baygamot are cropping heavily. All varieties of Peaches and Nectarine have required a considerable thinning of fruits, but notwithetanding the loog wpell of drought look remarkably well; this latter remark appliea to all fruit trees. Apricot are rather under average crop. Plame and Cberrie good. Small fraite and Suranberriea very good, although the latiar uffered
somewhat from the dry weather. Nuts are very plentifal throughout this district. Chas. Herrin, Dropmore, Taplow.

- Piums and Applex a very heavy crop, breen clean and healthy. Among early Apples bearing freely are Irish Peach, Mr. Gladatone, Lord Saffield, and Seaton House. Among Strawberries, Royal Sovereign, British Queen, Laxton's Latest of All, and Waterloo have been very fine. J. Smith, Mentmore, Leighton Buzzard.
- Apples Lord Saffield, Lord Derby, King of the Pippins, Cox's Orange Pippin, and Blenheim Orange are very good here; in fact, the Apple crop is decidedly a good one. The following varieties of Pears are carrying good crops, viz, Comte de Lamer, Pitmanton Dachess, Bearré Clairgean, Vicar of Winkfield, Black Worceater, Marie Lonies, Eatter Baurré, Louise Bonne of Jersey, Glou Morceaa, and Doyenné de Comice. F. Capp, Wexham Park Gardens, Slough.

Cebshire,-Applen are very good crops, more especially the following uneful varieties:-Lord Saffield, Lord Grosvenor, Grenadier, Hawthornden, Cellini, \&ce, which are overloaded with fruit. Pears are very good crope, too, Marie Louise, both on the walle and in the open, being fall of fruit. Victoris Plums are so heavily loaded with fruit that the branches require support, other kinds fair. Robt. MacKellar, Abney Hall Gardens, Cheadle.

With the exception of Apricots, which are almost a failare here, the fruit crop in a most astisfactory one. Apples are a very full crop, the fruit remarkably clean, and the trees free from blight. Plume and Damsons are also a full crop, in some casen, trees of the latter have suffered a great deal from spider. Pears are mach below an average crop. There was very little bloom in the early apring, donbtlen accounted for by the hesry crop: carried laet year, and this remark applien to Apricots as well. Strawberriee have been a very henvy crop, and of excellent quality. With me, Royal Sovereign has established its claim as a first-claes second early variety for pots, as well as outside. Cherries and mall bush froitu are an abundant crop. Old brakes of Rapberries suffered somewhat severely from the frost, but younger brakes have carried enormons crops; and out of a number of varieties, I find Superlative the best. N. F. Barnes, Eaton Hall Gardens.
Derbyshirs.-Apples and Pears, favoured with magnificent weather whilot in blossom, set a prodigioan crop, bat the long-continued drought thinned them considerably, and advantageously. Pears, however, are atill a very heavy crop, particularly such varieties as Jargonelle, Beurré de Capiaumont, Easter Beursé, Vicar of Winkfiela, Williama' Bon Chrétien, \&c. Oar heavient crop of Apples are Gravenstein, Keawick Codlin, Emperor Alexander, Cellini, and Northern Greening. Oar newly-made Strawberry beds suffered terribly through the exceptional veverity of the winter, hundreds of plants being killed outright. Ben Ashton, Glosop Hall Gardene.

The prenent seaton is one of the mont fruitfal we have had for many yeart, both in gardent and orehards; the trees are literally loaded with fruit, and considering the long apell of dry weather we have experienced, the trees are wonderfully free from insect pesta. Jo. Bottrell, Sudbury Hall, Derby.
Leichertesehres,-The Apple crop on atandard trees is heary in this district, especially of the varieties Bienheim Orange Pippin, Wellington, Qieen Caroline, Dachess of Oldenburgh, Kentish Fillbasket, Lord Suffield, and Pike's Pearmain. Pyramidal trees have fair average crops of Duchess of Oidentargh, Domino, Pott's and Bramley's Seedling, Pince Albert, Frogmore Prolific, Newton Plppin, Braddick's Noupareil, Lord Lennox, Water100. Fearn's Pippin. Golden Rawet, and Irish Peach. Alfred Hamshere, Beau Manor Park Gardens, Lough.
borough.

- Apple treen are remarkably healthy this year, and the fruit is wwilling well. Some of the trees are mithout frait, owing to inclement weather,
and nevere attacks of insects laat season, which weakened them considerably. Pears set well, but have fallen mach aince from maggot and other cansen. All bushes are clean and healthy, but Gooseberrien were severely attacked by caterpillars daring the late dry hot weather. W. H. Divers, Belvoir Castle Gardens, Grantham.

The crop of Apples this year is particularly good, pyramid trees on Paradise stocks being heavily laden, and require severe thinning. Bismarck, Seaton Honse, Lord Grosvenor, Stirling Castle, Frogmore Prolific, Prince Albert, Cox's Pomona, Potte' Seedling, Warner's King, Tyler's Kernel, and The Queen (Saltmarsh) are amongst the most noticeable. Of orchard atandards. Keawick and Manx Codlins, Ecklinville Seedling, Queen Caroline, Winter Hamthoraden, and Bramley's Seedling are the best. Amongst Pears on the walls, Marie Louise, Passe Colmar, Bearré Sterckman, Winter Neli,, and Lonive Bonne are the mont productive. Raspberries, Gooseberries, and Red Currant are abundant. Stramberries have been a phenomenal crop, bat the bulk were soon over, owing to the drought. All fruit treen are clean and in good condition. Danl. Roberts, Prestwold Gardens, Loughboro'.
Oxfordshire, - The anripened shoots on the lower parts of Peach trees were killed by frost, bat the crop nevertheless is a good one. Amsden's Jane, Alexander, and Waterloo Peachen were ripe on July 24. Strawberry President was particularly abundant and fine. Fruit trees of all kind, have kept remarkably clean this year. G. Stenton, Park Placs Gardens, Henley-on-Thames,

- Frait trees this year are, on the whole, almost free from green-fly, the revere winter probably having deatroyed their egga. Considering how acarce Applen were laat year, it is remarkable that we should have another bad year following, for although early vareties are plentiful enough, the later and main croppers are very deficient. The trees had acarcely any blonom; perhaps the cold wet summer had most to do with this failure A. J. Long, Wyfold Court.
Shropshire.-Apples fall crops, though partial in places, some trees loaded and othern bare, many falling throagh drought. Pears are thin and mall. Plums especially plentifal on walls. Damson trees are breaking down with the weight of their crop. This year's rainfall for May was 060 , for June, 10 Last year it was for May, 304 , and for June, 24 , these figures speak conclanively as to the drought. A. S. Kemp, Broadway, Shifnal.
- In this district Apricots are the only fraita that are a partial failure, which considering the cropa of the paat two years is not aurprising. Applen are a heavy crop, and the trees very healthy. Many varietien are grown, and all are good. Unfortunately a hailatorm of nnusual neverity passed over this neighbourhood on Jaly 21, damaging the Apple crop badly, cutting and bruising the frait. Peara are a good crop, Marie Lonise better than last season. Peach and Nectarine trees are bearing good cropn. Plame have not required so mach thinning, but the tree have a fall crop. Sraall fruits have been abundant and good, but caterpillars have been bad on Gooneberries and Carrants on north walls. Strawberries have been very plentiful, and Laxton's Noble, President, and Waterloo, are the varieties that do best and keep up a long succention. This season we are discarding Sir Harry, Lord Napier, Vicomteane Héricart de Thary, Elton Pine, and Serling. 8. Backhouse, Onslow Gardens, Shrewsbury.

Staffordshire. - The Apple crop in this district is the beat we have had for some jeara, such varietien as Keswick, Lord Saffeld, Manx Codlin, Cellini Pippin, Small's Admirable, and Stirling Castle, being *o loaded with fruit, it would almost pay to thin them. Pearn are a good average crop, and promize to be good in quality; the same may be sidid of Plums. Cherries have aleo been very good ; and Strawberries excellent both in crop and quantity. Noble, that hae the character of being defficient in flavour, has been very good this year, conld not wish for better flaroured
froit. Gooseberries and all kinds of Curranta bam been plentiful and good. John Wallis, Keele Gardem, - It is the first time I have been able to gim you such a good report of the frait crop genernily from this district. Almost every Apple tree is loaded with frait, free from blight, and where proper thinning has been done a good harvest may be looked or : in many cases old dwarfed, most-covered, and In. bound Apple trees, that have been atraggling for existence for years past, are wreathed with mull fruit this year. Pears on wall are good average crop and quality, standarde are remarkably healthy al good. Caerries, small fruits, and Strawberriee (unde good culcivation), have been all that could be deimen Some of the carses of part failure other years han bsen caused by late spring frost. I mast also wh that birda have been reaponsible for a great deal by taking the bude in winter and spring, the frott insa winter has greatly reduced their number-lean buh were taken this year than unual. H. G. Wikks, Sandan Hall Gardens, near Stone.
Warwicishires.-The wealth of blonom on ill frait trees and bushes, except Apricots, hat man than fulifled expectationa, for the abundance of friut matured and mataring has not been equalled for mag yeara. Apples of mont varieties asually grown an almost breaking the trees, Plums also requiring to propped up. The drought of May and Tane told a the eize of Strawberries, but the quantity and quility quite compenated for that. A. D. Chritie, Bayle Gardens.

> (To be continued.)

## ROOT PROPAGATION OF SHOW

 AND FANCY PELARGONIUMS.A capital method of propagation, but one that in not mach known, is by means of root-catting. $\Delta 1$ soon as the flowering weason is past-any, in July "f Augast, the planta are tarned out of their pote, the atronger roots cut off, the whole of the soil shan clean off, and the root-mase washed in water to make them clesn. After this is done the plath should be repotted in fresh soil. By this repotiing the gardener is rewarded by a number of fine larg roote, which can be removed withont inflicting tho least injary to the plante. The atronger roots anoll be placed in catting-pots, the thicker end jafi appearing above the surface of the soil. The baif kind of soil for the cattinge consists of peat and de cayed hot-bed manare. The cattings should be lighty watered-in, and afterward occasionally aprintles Of course, they must at first be put into a frame, ase kept close, and shaded, bat as soon as growth sppetin ample ventilation must be afforded. Shoota beristo appear in fourteen dayb, and an ar rale seeveral of the appear on each piece of root. When there allole have reached a desirable length, the point mas ${ }^{\text {b/ }}$ taken off and treated as a catting, if further incrum be required. The rooted plants should be repotite when the catting pote get fall of roota, and at nehal depth that the point of origin of the ahoot or thoolt comes below the surface of the soil.

## LILIUM PARRYI.*

AT one of the recent meetings of the Royal Hent cultaral Society, flowering specimens of the sbow named citron-yellow, fragrant Lily (fg. 42, p. 2 were shown by Mesers. Wallace of Colchenter. An

[^14]plant is as yet little known, we append the following particulars taken from Elwes' noble monograph:"Extract from Dr. Parry's account of the plant:${ }^{06}$ In one of my last botanical excuraions in the vicinity of San Bernardino in July, 1876, I accepted an oft-repeated invitation to viait the intelligent brothers J. F. and F. M. Ring in their mountain
aion of the South Pacific Railroad. In one of these monntain nooks the Mesara. Ring have located a Potato ranch, the elevation of over 4000 feet giving a anffisiently cool, moist climate, while the adjoining mountain-alopes afford an extenive nmmer cattlerange long after the herbage of the lowland hav dried ap.
ap with rank Willow and Alder growtha, and oceasionally expand into amall meadons of coarue grasa and sedges.
" 'On all the steep gravelly slope sadjoining, there was the usual display of Californian evergeen shrabbery, inclading the Heath-like Adenostoma (which, uader the name of 'chamisal,' in largely


retreat near San Gorgonio Paar. Lemving the broad and pictureqque basin of the Santa-Anna Valley near the emergence of the atream from the rugged mountain-wall of the San Bernardino range, our route, after crosning Mill Creek, hagged the foothille bordering the Upper Yucaipa valley; thence, by a more rapid acent in a nearly direct easterly courte, we reached an elevated bench ecattered with Pine and Oak groves, overlooking the Eroad aweep of the San Gorgonio Panf, now tiaverted by the eastern exten-
" ' In scattered groves of Pinus Cuulteri, the ground was strewn with the massive cones of this peculiar species, ite denae scale armed with formidable hooked pine:. Many of the conen were fully 6 inches in diameter, with a length of 9 inches.
"'The fev perennial watercournen here met with are montly confined within deep and inaccessible ravines; but more frequently scanty springe ocze ont from beneath deep layers of porous strats, and opread out into boggy marahes, generally choked
used for frel), the Holly-leaved Cherry (Prunus ilicifolia) exhaling a atrong odour of bitter almonds. the Heteromeles arbatifolia, with glossy varniahed leaves, and a prevalent form of 'California Lilac' (Coenothan cramifoliat), with thick leathery foliage. The dall green hat which everywhere characterises the moorish growth, is at this time of year partly relieved by brilliant carlet fettoon of Pentatemon cordifolius trailing over acjoining bushen, or the len chowy blowome of P . ternatas.
"Bat what soon attracted more exclusive attention was a conapicaon yellow Lily growing abandantly on the boggy ground adjoining Mearts. Ringe' hoase, and sharing with the Potato- patch the care and attention of the undisputed possessors of the soil. Though not so showy as some other members of the Lily family in this region, there is a grace diaplayed in its large drooping flowers, surmounting a slender stem benet with narrow acattered leaves, which are occanionally crowded at the base into a distinct whorl.'

Trees and Shrubs.
sambucus racemosa, red-berried ELDER.
Tris plant atands out well at the present season as an object of beanty, with it cluaters of coral-red berries ; and so fond are the birds of the ripe seeds, that plant from the voided seeds are found all over the garden, and in some instances in exactly ideal positiong. For instance, we have averal large apecimen growing among trees, Box towering well above them, and I think that a better groundwork could not be found for the Elder than the Box. Oar stock of plants is also increased by cattings pat in daring the autamn.

## Sambucts nigra folifs atbeis.

Thit in another capital garden ahrab, and well adapted also for planting near the margins of woods and at the sides of the approaches to the mannion. It nhould be eeverely cut back in the apring if it in to look ita best. The plants at this place grow in peat bede among the Ghent Azaleas, and the foliage of these colours well.

## Sambucus migea var. folits lutbo marginatis,

This is a variety of the common Eider, which I can recommend for planting in a uhrabbery or on the edge of woods. It retains its variegation when planted in partial shade, in fact it grows satisfactorily under the shade of trees. [A: does the type. Ed.] Herbert May, Markree Castle, Sligo.

## Rubes lastostylus.

The number of Rubi known to botaniats has been very considerably increased by the explorations of Dr. A. Heary in China, bat our knowledge of most of thene new species is at present dependent on herbariam specimens. R. laviostylas, however, a speciea discovered by Dr. Henry in 1888, in the province of Hupeh, China, is now in the living collection at Kew, having been raised from zeed. It flowered for the first time in Jane, 1894, and has recently been figured in the Botanical Magazine (6. 7426). The flowers are mall, and the petals of a bright reddish-parple. They are, however, very fagacious, and whatever value the apecies may ponsess from the horticultural standpoint, lies in its being an addition to the white-atemmed kinds, of which we have already three or four in cultivation leucodermis, biforas, \&es. The atems of this new apecies are at prement 4 feet high, thickly armed with pricklen, and covered with a bluish-white bloom which rubs off at the touch. The leaves are pinnate, the leafeta masply and irregularly arerrated, and the mid-rid and petiole armed with short apinen. Having stood the winter of $189 t-5$ with no protection of any kind, and quite uninjared, it may definitely be included among perfectly hardy shrub. W. J. $B$.

## Clerodindron thichotomons.

The only apecies of Clerodendron of traly shrubby habit that is hardy in England is C. trichotomam. It in a native of Japan, and is found in various parts of that country. Although it is anid to have been firt introduced in 1800, it is far from being as extennively cultivated ase ite beauty and diatinctneus from all other hardy shrabs entitle it to be. It grows to a height of 10 to 15 feet, the wood being aoft, and the branches largely componed of pith, The large, broadly ovate leaves are soft and of a
many of the Clerodendrons, emit a divagreeable odour when braised. The flowers appear during the months of Auguat and September, and are produced in loose terminal cymes. The corolla is white, the lower part being tabalar, bat the apper part dividea into five spreading, oblong segmentr, and measures $1_{2} \frac{1}{2}$ inches across. Surrounding the corolla, and making an effective contrast to it, is the purplered calyx, which is infated, and traversed by âve ridges. The species is easily increased by means of suckers and root cattings. W. J.B.

## Magnolia gilatuca.

Whilat the American representatives of the genas Magnolia never display that magnificent wealth of blossom which renders the Asiatic species and bybrids the most lovely of apring-flowering trees, they possens sufficiently good qualities to make them indispensable to every garden with apace enough for their development. They flower, too, when their allies from China and Japan are long past. Juat now M. grandiflora and M. glauca claim most attention. The latter is somewhat hardier than M. grandiflora and its flowers, although much smaller, have a more exquisite, if less powerful, fragrance, suggesting at once a delicious fruit, and a bunch of Tea Roses. The flowers are never seen in great numbers at one time, bat a aingle shrab will keep ap a succersion of them for ten or twelve week. Each Hower is from 2 to 3 inches in diameter, and cupshaped, the colour a soft creamy-white. In some localities in the United States this Magnolia attains the dimenaions of a mall tree, with a well-formed slender trank, but in Britaia it rarely gets beyond the shrabby state. It usually retains a large proportion of its foliage throughout the winter, bat different planter vary a good deal in regard to the persistence of the leaves, some, even in mild seasons, becoming almont bare. The leaves are oblong, mooth, and glossy-green above, but vividly glancona beneath. The apecies has been in cultivation in Eagland over 200 yeara. There is a fine varitty of it known both as major and as Thompsoniana. It has larger leavea and flowers than the type, and is equally fragrant. W. J. B.

## THE DEVELOPMENT OF THE <br> CARNATION.

By the mereat accidental circumatance a vinit was paid recently to the gardens of Mr. John Garnett, nurseryman and florist, at Bownen-onWindermere. Here we fortunately encountered the urbane and genial proprietor, whone extensive stock of every description of flowering plants is a rare aight to be reen, cultivated on what appears to be little better than rocky barren ground; but the reverse is the cave, though the blue, ragged limestone of the district projects above ground in every direction, and that forms a grand neatling place for an immense collection of rare and other Forns. Bat Mr. Garnett figures most prominently at a breeder and raieer of Carnatione, of which there are many hadreds of difforent varieties growing in the open in a light woil, which evidently overlies a rocky foundation. The richnens and parity of the prodactions prove that the ground is well adapted for the parpose, many of the blooms measaring $4 \frac{1}{2}$ inches in dismeter, and showing good sound calycen and brilliancy of coloar, in which many of the tinte of the rainbow can be discerned. Mr. Garnett's great aim for wome years past has been to produce a blue Carnation, and be considers that he in now on the brink of succem. Many scores of blooms were pointed to as ponesaing the akyblae tint on the fringe of the petale, bat it is inside one of the glamhouser that the coming
flower is carefully tended. The carefally tended.
The great difficulty, as Mr. Garnett explains, wa to obtain the proper combination of opposite coloura for a foundation to work upon, which is an entirely different procens to that adopted by the artist; bat after continued perneverance his effort have been rewarded by a zingle bloom of pure indigo-blue, chowing only the faintent shade of violet on the
caly

This plant differs cousiderably from the rest o the stock, and has but a weak and rather wickly appearance; but Mr. Garnett is firmly convinced that if he can retain it and induce it to prodee prolific seed, that by a cross with another varien upon which he has already fixed, but of which bu did not reveal the name, he will meet with the result which he seeks, and in the course of another remove or two will be able to prodace a brighe blue Carnation.

Many other experiments which he has made in hytho dising have produced remarkable and beantiful effio and a short time previously he had deapatched twa three single fowera to the Carnation and Pieta Uaion for inspection, though not with a viem on competition. A letter just received from the secretur and treasurer, Mr. Arthar Medharat, showed the these had attracted the attention of the jadges, ul in reference to them the following was embodied in the jadges' general report: -" "The seedlings thow gooi blood, and are decidedly promising; bat an it in rule to give certificates only in cases of two or man blooms of one variety being shown, no award did certificate could be made on this occasion mithou infringing the rulea." J.W.

## KNIPHOF'S BOTANICA IN

## ORIGINALI, 1758-1764.

The name Kniphof, as commemorated in the gena Kaiphofia, is not unfamiliar, bat comparatively fun persons will know anything of the history of the man who was the author of the work of which tho above is the abbreviated title. An uacat coppy this rare and carious botanical book has lately bem added to the Kew library. It is interesting historcally, both on account of ita being a record of plath cultivated at that date in Germany, and chiefly, in all probability, at Erfort, as it was there the autior resided, and also on account of its being one of the earliest, if not actually the first, work of considerably extent, in which the process of natare-printing we employed to illustrate plants. It woald appear thit D. Brükmann, a contemporary of Kaiphof, wa redly the inventor, if it may be so termed, of thir method of representing plantu, as there is a publinhed leftre by him on the subject addressed to Kaiphof, dud 1733; but this is not in the Kow library. The eith is, Sendschreiben an J. H. Kniphof, die Art dic Rrãim nach dem Leben abzudrucken und also comp sndiow ITr baria picta zu machen, vorstellend. The foll tittod the work in question is, Botanica in Origimlis som Herbarium Vivam in quo Plantarum tam Indigonans quam Exoticarum peculiari quadam operosqque nndiriw atramento impressorio obductarum Nominibunque mim ad Methodum Illustrium nostri aevi Botanicornm lim naei et Indwigii Insignitarum elegantiwsina dijf exhibentur.
Trampe.
There are two foolscap folio volumes contsinim 1202 figuren, one on each leaf, besides a nanter introduced on the title pages of the twelve partiil which it was issued, for the purpones of embaliew ment, making a total of 1250 apcies repretearith Figure 545 is miasing. The Kew copy is prow unique in being coloured, the colouring being math likely the work of a private person, for there in 10 mention of coloured copies by any of the billiontr phern. The colouring is generally well and tively done, though in some instances it is then for extent neatralised by the too intense blachan the print. This copy first belonged to J. G, 1 , M.D., Professor Pablicus Primarius at Cologie, 1 , neems to have acquired it in 1764 , the dably pablication of the last part. Subsequentij it have passed into Eaglish hande, as some permed written, in a very neat hand, the Eagliti many of the plant.
The arrangement is alphabetical, with the $I$ names of the first edicion of the Specias and refereaces to the pages of that work, the Systema, and Ladwig'" Definitiont Plantarum. The "specific phrases" of the Plantarum are also reprodaced.

## STREPTOCARPU'S LAING'S

 MULTIFLORA.ImPROTIMENTS are taking place with rapidity in the size of the flowers, and in the colonring of Streptocarpus. The plant now vie in beauty with Gloxinias, and in general usefulnes and length of

## A MOTH-CATCHING PLANT.

The following curioun atory of a well-known plant appeared a ahort time since in the Detroit Free Press, under the title of "A Moth-catching Plant." The plant in quention, the Araojia albens, or as it is now known an Arajo aericifera, is described by


Fig. 43.-streptocabpes multiflora.
time that a plant will remain in flower greatly excel theep plants. The variety depicted in our illustration ( 6 g. 43), was exhibited by Menry. John Laing \& Sons. Foreat Hill, at the Rogal Horticultaral Society's meeting on Taesday, July 9, of the present year. The flowert are of a blaikh-parple ground coloar, with parple lines in the throat. Tuere were thirty open flowers borne by the plant, which wat growing in a 5 -inch pot.
our contemporary as a native of South Africa, when it is, in fact, a native of Pera. It is , however, stated to have been introduced to Now Zanland quite accidentally about aeven years ago, and since then to have been extensively propagated there on accoant of ite effective service as a killer of destructive moths. Wherever the climata is mild the plant is an exceedingly free grower. Is twines and climbe with great luxariance, and prodace
immeneen"numbers of white or pinkith flowers, which have a very agreeable scent. These flowers attract innumerable moths. On a sammer evening a hedge of Arajias will be covered by a perfect cloud of mothe, and in the morning there will not be a single flower that does not imprison one or two, and sometimes as many as four, insects, of various sizes and genera. The action of the Araojia is parely mechanical. The calyx of the fower is rather deep, and the receptacle for ita aweet juices is placed at ita base. Attracted by the powerfal scent, and the prospect of honey, the moth dives down the calyx and protrades its proboscie to reach the temptiog food, but before it can do so, the proboscis is nipped between two strong, hard, black pincers, which gasrd the panage, and once nipped, there is no escape for the moth, which is held as in a vice by the extreme end of the proboscis, and dies miserably. The rationale of the process is not get explained. A plant of Arajjia, covering a apace of 10 yards in length, will destroy many hundred of mothe every night, and consequently prevent the ravages of fifty times an many larve. It is bowever a singular fect that in New Zealand, where the plant has often been caltivated for the expreas purpose of destroying the detested Codlin-moth (Carpocapa pomonella), that wily insect declines to enter the trap.

## APOGAMIC FERNS.

Acthooger the discovery of apogamy, or the power of the Fern prothallus to prodace the epore-bearing generation by simple budding, instead of through the interaction of the antherozoids and archegonia, dates back some twenty year, a practical application of the koowledge then gained and publibetd by its discoverer, Profestor Farlow, and sabsequently by Profeasor A. de Bary, appears only now to cone into question when the hybridising and crossing of apecies and varieties is being conducted on a aytematic basis. We have been led to this concluaion by the fact, that for the parpose of obtaining a crested Cyrtominm, we made not long since several sowiage of spores of C. falcatum and C. caryotideam mixed with spores of Lastrea paendo-mas cristata, thinking that, as these two apecites were very clovely allied, the chances of a crine were great. Pending, however, the appearance if the young plante, a stady of the literature of apogems in connection with the carious prothalla illast ased in your columns (Nowember 10, 1894), of waic'। more amon, led at to D, Biry's discovery. ret lorth in the Botanische Zeitunq, Jaly 19. 1873, and the following numbers, of the fact that precisely L. form. criatate and C. falcatum are invariably prodaced apogamoualy, that the first cariously enough jactifies its common name of male Fern by never b-aring archegonia, while the wecond only produce these aparingly and never perfects them-bade, and bude only, being prodaced in both cases. Ojviously, therefore, a cross is imponible. Unfortanately for the ordinary Fern caltivator, the development of Ferns in this asexual way, demands the atmost alkill of the microscopiat for its determination, since the Ferna so produced uecally apring from precisely the ame parte of the prothallas nt those jielded sexaally, and being of exactly nimilar appearance cannot be diveriminated from them by ordinary observation. Heace if such pitfalls are to be aroided as the one we have described above, the would-be hybridiet mast look to the specialiat in microscople dissection to help him, and we think renewed research in the line of D3 Bary's inventigations would well repay the trouble. In the frat place, although De Biry tested a considerable number of Forna, and found the large majority capable of normal, i.e., of sexaal reprodaction, thirtysixindeed asagainat three (Pteris cretica, Lastrea flixmase cristata, and C. falcatam), yet in thone days the pouible diccoveries in connection with abnormal varieties were almont entirely ignored, and of the thirtynine Fernu named by D \& B ary, only three are abnormal, of which, bo it noted, one, Lustrea filix-mas cristata,
is constantiy apogamons, though the normal un crested form ie not so, the apogamy being thus corre lated with the taaselling, a point to our mind of great importance. The folly of applying the term of "garden varietien" to many of our abnormal forms is seen in this connection, since D3 Bary alludes to L. filix-mas cristata as such, and asomes, therefore, that the date of origin can be ascertained while, in point of fact, it was found wild, and is as purely a natural product, i.e., as independent of haman caltaral influences as the common normal form.
Another point is, that the crested male Farn has been found as widely differing and altozether independent aports in varioue parta of the British Isles, the whole of the thren anb-species, L. propinqua, L. filix-mas, and Lo paendo-mak, having afforded examples. We ourselves found a aplendid form of L. f.-m. polydactyla near Kilmarnock, and a thorough L. f.-m. criotata at Kitruah in Ireland Mr. Dadds found exsmples at Ilfracombs, Dr. Wills near Cbard, and extreme forms have been found eleewhere. Now it is here that the Fern epecislist should go hand in hand with anch inveatigstors an Da Bary, in which case we nhould probsbly know, as we now do not, whether apogamy in always correlated in this apecies, i.s., in all three rab-divisions with cristatus, or in a relatively varging degree, or not at all. A point aloo would have been that varions ab-varieties exist, and did then exist which are the repated offapriag, sad in themselves bear evidence of being so of the identical L. f.-m. cristats, which is in queation. L. f.-m. crittata angurtata is one of these, and more recently, that lovely ailken form, L. f.-m. crictata fimbriata has been rained, while denes narrow-crested form raised by Mewrr. Lang of Kirkcaldy, bear! every evidonce of being a crom between L. f.-m. c. anguatata, and one of the dwarl forms of the same apecies From these facts, it is clear that within this single section of the varions crested male Ferns, there are ample ponibilities of further light being thrown apon apogamic reproduction, since though we have no reason to asnume apogamy is a bar to variation any more than other bud-forming phenomena, zet the reputed cromses point diatinctly to exceptions which $\mathbf{D} \rightarrow$ Bary failed to find.
Oar Britigh Fern varietier, we are convinced, are replete with possibilities, their diversity of form being, se we know, attended occasionally by anch modifications of reproductive energy as were quite undreamt of. Externally, they form a chapter of wonder to any one who cares to stady them, and it would be atrange indeed were thin diversity all *kin-deep only, leaving nothing for that deeper renearch which we auggert.
Raverting to the curiout prothallus mentioned nowe, the two horns developed therefrom bear at present two similar Athyria, thav, at any rate, affordiag an inatance of true apogamy in that family, the normal form of which, as well ss A. f.f. Frizollize were found by De Bary to be normally fertile. In thir cave tbe phenomenon appears in a different form sltogether from sny noticed by him, the seate of the bulbils being far remored from the archegonial nites, of from any projection unch as he observed in the indentation of the prothallas. Each Fern shows three frond, one developed, and bearifg n) lese than ten pairs of pinnate pinne, inutesd of the wasal much simpler primary frond. Rootr, however, are only $\begin{aligned} & \text { Iow forming, and the plants are }\end{aligned}$ consequently of very slow growth. One very cariove fentare it that the horn bearing thene plante, and which were at firut sharply pointed, are now in both caser diating at the tipw, the stronger of the two forming a diutinet Ieshy prothallus. A eccond prothallas in the asmo batch developed a similar but maller horn direct from the apper aurface; a bud appeared on thit in preciely the ame fathion as the others, but the resalting plant, also an Atayrium, is of very differeat form, promising to be well crented, while the others are plain. Nothing at all akin to thir cam hav, we believe, been noted or reeorded hitherto. Chas, T. Druery, F.L S.

## Plant Notes

STOCK PRINCESS ALICE AS a bedding PLANT.
This comparatively new $\quad$ triety of Stock is a decided advance and improvement on older varieties, and formes a very beantifal nabject for bedding pur poses. It is of snowp whitenes, perfect habit, and a continuons bloomer. Raised in heat in March, and plented out early in May, it blooms from Jane antil cat down by frost. Large beds have been planted in the groands auder my charge thim neason, having a broad edging of "Croton-leaved" Bent or scarlet Verbena, and the effect is charming. Its also seems to me to be more pewerfally fragrant than other Stock. W. H. Aggett. Bermondsey, S.E.

## The Aplary

the treatment of robber bees.

## IT is easy to prevent bees robbing each othes'

 hives, if the hive of the robbers can be ascertained. Search should be made for it, and when found famigated with mask or camphor, so as to give the bee living in it a strong mell, by which the bees in other hives will know, and be warned acainst them. It is also good to give the robber bees some work to do in their owa hive by trewing the floor with chaff, newdut, \&e.; and to tara the robbed stocks to face in another direction, or place them eleewhere. Placing the hive of the robbers in a cool, dark cellar way aleo be recommended. If the bees then acquire better behaviour, they will bave forgotten their robber habita. If the robbors are the property of a neighbour, he should be requeated to pat these regulations in force.
## The Week's Work.

## THW HARDY GRUIT GARDEN

## By W. Pope. Gardswer, Bighclern Castle. Newbury.

THINNING THE CROWNB OF ORCHARD TREEB,
ETC. - Now is an excelleut time to operate on the tops of orchard or other tandard trees that may have failed to fruit, or on early kinds that need it after the frait has been gathered, in taking out muperflanas wood, and so admitting a little anlight and air to the interior. It is neceesary to proceed cautionaly with old and hitherto neglected trees, as thinning in their case may paily be over done, and tha ramedy is then nometime worse than neglect. While the foliage is on the trees, it is easy to see where to thin out branches with advantage to the tree, and by taking out a fe small ones here and there, or a larger branch occanionally when deemed necamary, in a few yeary many treen now practically worthlen might be annaally bearing fairly remunerative cropa of fruit. It in a good plan the firat year to take out all croaing and interacing branchen; thil, with shortening a faw overgrown spare here and there, will often be sufficient for one meavon, and it ahould be followed by a good duating with quicklime as aon at the leaven have fallen. Thiv, if applied whilat the tree are damp, will dentroy lichens and monsy growth, and conduce to the health and well-being of the treen
preparationa for planting.-Those who contemplate planting to any extent hould make a point of visiting some good fruit nursery at this season, and melect the trees required to be sent a soon as the leaves fall. It is alway more satisfac tory to the purchaser if he can select bis trees, as be thea know exactly what to expect from the pureryman when the time comes to plant. It will be well, too, to prepare the ground at once, if it can be ao managed. When a border or quarter ir to be plented, the ground whould be tranched at leat two sit deep, making eare that the drainage is good; and if not, the land must be thoroughly drained. If some good tarfy loam can be obtained, for placing roand about the roots when plantiag, all the better; if not a heap of compost hould now be got in readines, which may consint of road-scrapings, decayed and charred vegetable refane, wood-anhen, or the like, which mould be put into a begp and turned two or three times. If wall frait-tree are to be planted, the
tations may be prepared by trenching and drainiag but the holes should not be left open. It is well to preserve all old mortar, plaster, \&ce, for mixing with the soil in which stone fruits are to be planted, a well as for working-in round the roote of exituing trees which may require it.

## TET ORCRID HOUSES

By W. H. Whitr, Orchid Grower. Beerford. Dotking.
REPAIRS AND MAINTENANCE.-At thie segeon the heating-apparatus should be overhauled, and put into order tor the winter searon. Tbe boilers shoth at least be cleared of sediment, if nothing elogh done, and the doing of this will empty the pipes of water, but they should not be left empty. If the boilers have manhole or openings that are lame enough for a scraper or iron chisel to be ased, the incrustation which is aure to take place with ordi nary water at points where the fire is hottent, cen perhaps be removed. This will easble the boiler to do it work more efficiently, and ave the materis of the boiler trom being destroyed by the action ol the fire. Loose joints in the hot-water pipes mat be made good; valves oiled, and overflow and foel pipes put in good order. The fire bars, fire-lampa flues round and ovar the boiless, and ash-pit doors abould receive attention. The hard frosts of lat winter mut have neverely tested the heating capacity of man $a$ toiler, and proved the inefficiency of othere, and nom ia the time to make provision for anotber minter. Ualess an Orchid grower bas an apparatas that will maintain the right degree of warmth in biu houses, the plants mat suffer in bealth. Some persons are under the imprestion that $\boldsymbol{*}$ long a th pipes are as hot as they can be that is aufficient, butitio a mistake, for the plant. quickly detertorate whem pipes have to be kept fiercely hot on purpoes to wirn the air of the house. It is better to furnish more and keep them moderately warm. When this kin of work is to be carripd out the plants should bo allowed gradually to become dry. I allade to thom species which occupy the hottest houses. If durivg the performance of the work any of the plants appar to onffer from drgnesp, water may be affuded in about one-hali the usual quantity.

CATAEETUMA, MORMODE8, ETC.-Partieuly attention whould be given to plants of Cataetari Mormodes, and Cycnoches, which having bloomal have finished growth for the searon, in the matter of maturing that growth by and-heat. Sach plant bould be placed where they may obtain ninater rapted sunshine, and the atmosptere is dive and leas close than the houses they ham hitherto occupied. Whilnt the leaves remsin frem keep them nupplied with water at the yoos When the growth is properly matared the plast will go for a very long period uniojared, witaum receiving any moisture at the root. So soon as mot leaven turn of a yellow colour, the water supply muk be gradually reduced, and when they drop, diccot. tinued entirely. If the psendo-balbs keep pluy looking no more water will be required before Li plants beain again to break. Cgrtopodiam, sochilas, Cyrtopera, Thania, Bletia, and the decidaw Eulopbias may be similarly treated. As regardon of these pecies, it is certain that the treaman fforded during rest is as important as that durile their growth.

## THE KITCEEN GARDEN

By Jobr Lakbeht, Gardener. Powis Caule Foldpol
box edginas. - From now onwards, them edgiaga may be trimmed; sud in order to give dug and other creatures bat little covert, the edgim Box should be kept to about 2 inches in height, the ame in width at the bottom, and 1 inct top. When Box is cat at this season, new, nof growth has time to mature, and is, therefore, browned by frout, which is the case with lave the ming. Repaira may now be made, althong thy apring is a better time for lifting and divino plante. Box, to look nice, should be kept rery line whether curved or atraight, and cat very at the top and nidea.

THE COLLECTINO OF GEEDS -Seedr of Spisal Borecole, Tarnip, Broccoli, and Cabbage mation Lathered as fast as they become ripe, or beat in the plant palled $u p$ by the root. Lay the sped and whe eun on clathe or tray". Do not collect sedd onf damp with rain or dew. Tarn the aed-d occasionally, and in about a fortnight they at is be quite ready to ba threabed or abbed ouk mainy weather, and durnug the nighto the to be placed under coumr. Open aheds sull tinlit to ba pleced uader

CARDOONB.- The earliest plants are now ready for blanching. For this parpose procare hay-bands -not masty ones; and when commencing the job, put a strip of wide bast around the leaf-atalkn, to keep them better together, and then wrap them in haybbands, being careful to place each coil close to the next one, so as to shat out the light.
fennel and angelica.-Fennel and Angelica may be sown at this date, instead of in the spring, some gardeners fancying that autumn-sowing gives stronger plants. Sow the aeed thinly on a piece of ground, in an open place.

ONIONB. - In some parta of the country the Onion crop is atill in fall growth, but as moon as the majority of the balbs show signs of the tops falling over, a man should go with a wooden rake and press over the tops generally, and in ten days afterwards, if the weather is sunny, the crop should be lifted, sud the bulbe laid out in a dry shed or on sheephardies, \&ce, in the open. When dry, twist off the leafy part and the outermost akin, and store in a cold, dry room. Keep the spring and autumn oown produce apart ; in fact, the difforent varieties should be stored in according to their use at different easone. If the bulbs are roped, that job can be done at leisure.

## FRUITS UNDER GLABS.

## By Rtora rd Parker, Gardener, Goodwood, Chichester.

PRUNING.-The advantage of pruning the different kinds of frait trees soon after the crop is gathereds and before the foliage falls, is not so generally known es it should be. The gardener who prunes then, is in a better position to see what quantity of wood is required to properly farnish a given space, and the removal of superflions growth gives that of the current season a good chance of thorougbly mataring, a very essential condition for good fraiting. Peach and Nectarine trees ahould have all of the weakly or unfruitfal wood cat out; and it may be necessary to cut back some of the stronger growth where crowded, as in all cases sufficient space must be allowed for the fall development of the leaves. Care must be taken to retain young fruitful wood in anfficient quantity at the base of the tree. Some of the stronger shoote on thene fruit trees in the earlier houses may also be slortened back, and any growtha that were tied acrose others, wo as to enable the sun to reach the frait, may be loosened, thas exposing all parts to the action of direct sunshine. In the case of the Cierry, Pear, and Apple, whose shoots were pinched, so as to compel the fruit-spars to form on them, these will in the course of a ferm years become crowded, and the foliage very denae, by praning these trees at this season it will be an eabier matter to se which fruit-spars ought to be removed to enab.e light to penetrate the crown.

FIG-TREES.-These will require bat little praning et this season if they were properly managed during kroxth, atill, it may be denirable to cut back weak shoots, but not the extremitien of the main oner, as it is on these that the earlieat fruite form.

WATERING. - Water should be copiously afforded to Prach and Nectarine treen, dryneas at the rootn at tho weason often causing bud-dropping at a later date.

8YRINGING.-Continue the nyringing of fruit treen and Vines twice daily during hot weather, and where posible, the roof-light may be taken off the houste.
tomatos.-Plants that have been placed in thelr fiuisug pots should not receive much water at the root; the stem should be secared to a stout Nakn. and the side growth removed-pulled out. Utilive any apare lighte daring rainy weather, to keep the plauts dry.

## THE PLOW ${ }^{\text {PR }}$ GARDEN

By Batcuy Wadds, Gardener. Birdsall Gardens. Fork.
FLOWER GARDEN ARRANGEMENTB FOR NEXT SEABON -The present ie a good time to decide upon may alteration that may be required to be made in the bedding-out next season, and the number of the plante needed to fill the bede. It is alwaya a good thing to make some alteration in the arrangements of the culours. so an to impart freahness to the scenc. The fashion of aning plants so as to give toanta of coloar is disappearing in favour of lone Fividnes. by the cue of plante of varied habit, fuliage, \&c.

DAHLIAS.-The various how, fancy, pompon, Cactas, and the varieties of single and decorative Dahlias, might be more employed than at present in the beds in the flower garden proper. We possess in these plant beantifal colours which are not to be found in any other sammer-flowering plants. Dablias, moreover, are plants eanily propagated, and stored when out of bloom. The doable and single varieties of Cactu Dablias being particularly attractive, should be largely used in bed and borders, or in the kitchen garden for catting parposes. Good varietien are H. Cannell, Dr. Mastery, Lady Marmam, Mr. A. W. Tait, Marchioneas of Bate, Rayon d'Or, Harry Freeman, Claxton Harlequin. Mra. John Arnold, Matchleas, Mrs. A. Peart (grand), and Dake Alexis.

PROPAQATION.-For nome few weeks to come, the propagation of hardy and half-hardy sabjects will require anremitting attention. Pelargoniums struck in the early antumn flower more satiofactorily than those raised in the apring, and the cuttings atrike freely out-of-doort up to the middle of the month of September.

CENTAUREA CANDIDIB8IMA.-If ide shoot be taken off old plants, they will atrike freely when inserted in pots filled with sandy soil, placed in a warm house and shaded for a fortnight. For affording cuttings, it is necessary to keep nome plant in pote, and if the planta are kept somewhat dry, they mase number of ide hoote suitable for cattinge. When the Centarea is required to make a epecimen plant, several years elapse; but for an even batch of small plants for making panelling or edginge, seedlinga raised in February are the more anitable.

FUCHsiAB. - Cattings of the varieties which stand an ordinary out-of-doore winter, viz., Riccartoni, Meteor, Coralliaa, and Elegans, ahould row be struck in alight botcom-heat ander a hand-glass or in pots. Fuchsia Riccartoni is a very useful plant in ehrubberies and as solitary plante on the tarf, and in some districts it will stand our winters well and grow to a great height. It can be increased by offsets and division early in the pring.
balvia fulgens and 8. patens.-Cuttings will atrike in a moist, warm frame if carefully thaded at this season. Salvia patens being tuberout-rooted may be lifted and atored away for the winter after it is cat down by frost.
succulentr. - The propagation of Sempervivam, Mesembryanthemam, Sadam, Kleinia repene, $\& c$, should be now pashed on. These cuttings should not bs inserted as soon as made, bat the cut surface allowed to become dry. Place cattinga in a pit or frame in moist noil, bat afford no water for a time, and no shading.

TUBEROUS - ROOTED BEGONIA8. - Cattinge strike freely in boxed or pots in an siry frame, affording them but little water, and not depriving them of light and air, their treatenent generaly being that of the zonal Pelargonium.
miscellanequs. - Helictrope, sweet-scented Verbena and Cape Pelargonume used in bedding, Ageratum, Lantana. Hydrenga. Verbena, beddiag Tropmolume Mins Clibran and Scarlet Bedder, are clant. which may now be struck from cutticgn. Kooaigs variegata is a useful plant for edgings, and variegated Alysam saxatile deserves to be used more than it is. It surikes and growa well, and is most useful for ummer edgings ; also Nierembergia gracilis and fivularis, beautitel for edgings of mail heds, and for filling baskets, but seldom sepn now. Babinas thesp, Gezania splendens, and Autathea coeleatis, a pretty blue Marguerite, and Mangle's variegated Pelargoniam, and the varieties of Anagellis, crimson, blae, and white; Lobelie speciosa in variety, are plants required to be kept as succk, cuttinga of which should now be rooted. All of them s'rikereadily on aslight bottom-heat, carefallvahading them whilst the wn shiner, and keeping the light close, except for an hour in the morning to ditsipate moisture and dry the leaves. To keep the young plante atncky, the cutting-potim mat be pot more than 6 or 9 inches diatant from the glass. When it is seen that any potful of catting is rooted, remove it to a more dry frame.
herbaceous borderb.-Seedling perennials and biennials raised last month should be transplanted from the need-bede to the border in piaces remarved for them. Dig in some rotiten manure before planting them, place a amall stake ugainat
each to ave them from being trampled upon, and afford a watering. The present is a good time to plant permanentily prepared offets of various hardy herbaceous and perenaial plants, as they will be enabled to get eatablithed before the seamon of growth comen to an end.

Bowing seeds. - The seed of Sweet Peas, Digicalis, Dalphiniam, Aatirrhinum, Pentatemon, Poppy, Mignonette, \&c., should now be gathered, and dried in the whade. Our Sweet Peas, that were nown in pots and transplanted, have been very beantifal objects, the varieties being Counteas of Kadnor, Princens Beatrice, Mra. Gladetone, Captain of the Blues, and others.

## PLANTR UNDEHE GLABE.

By W. B. Smith, Gardener, West Dean Park, Chichester.
NERINES (GUERNBEY LILIE8) will require Watering in every case, and those which have not exhibited aign of flowering will carcely do so now. Nerines do not flower astiafactorily if distarbed at the root; bat if it is a necessity to increase the stock of the plants, any potfuls that are much crowded with bulb may be haken ont, divided, and the bulbs re-potced separately in flower-pote of 3 to $4 \frac{1}{3}$ inches in diameter. The compost employed in potting hould consist of tarfy loam, leaf-mould, and mand, and a manall quantity of finely-broken charcoal The pots should be thoroughly well crocked. Very little water will suffice for thea newly-potted bulbs, and a light syringing overhead will be beneficial Bulbs that need no re-potting should be top-drensed with the above compost, or afforded a little of Clay' Fartiliser in the proportion of a teaspoonfal to each 32-nized flower-pot.

FANCY PELARGONIUMS-Old planta will now be ready for being pruned hard-back to well-ripened wood of the current gear. After praning, place them in a common frame close to the glaes, and when they commence to break, shake the soil from the roots, tarn the latter slightly, and repot them in pots of the same or maller ize, presing the soil with moderate firmners. Replace in the frame, syringe regalarly, and affurd air at the top and bottom of the lights. Cattiage of these wavisties which were pat in at the beginning of last month, being rooted, will be ready for potting into 3 -incle pota. A suit able soil will conist of turfy loam and leaf soil, with a small quantity of sharp asnd if the loam be heavy.

COLEUB. - The present is a good tiane to atrike a quantity of cattings for stock parposes, as theme keep better through the wiater in suall pote, than older and larger planta. Moreover, they do not cceapy so much pace. Coleus cattings strike almont anywhere now in a little bottom - heat They keep perfectly thronghout the winter, if placed on a shelt clone to the glans in the stove.

PINKB-In case the quantity of Carnatione for winter and apring flowering is limited, some of the older plante of the Pink ahould be potted up, planting them in a cold frame and keeping close for a few days. The plants soon make fresh roots, and may then be stood outnide. Before kard froste set in place them in cold frames. They may be gently foreed into bloom, commencing in Janary. Suitabla varietiea are Mrs. Sinkins, Ernent Ladbams, Her Mrjeaty, Mrr. Lakin, and Mr. J. M. Welsh.

A New Pencil.-The Blaiadell Paper Pencil Company, Philadelphia, U.S.A., has introduced a kiud of pencil, the lead of which is seen, on examination, to be covered with many very narrow stripe of paper. The peacll never neede catting in the ordinary senwe of the word, but, to expose more lead, all that is necesnary is to make suall alib in the paper near the lead, thue raising tiny flap. By gently pulling aud unwindiug this, working towarde the point, a spiral of paper is twisted off, and a length of the lead is laid barw. This procest can be repeated as required, till the pancil it too short to be used at all, and is less laborious, and is more certain in result than is catting with a knife. The lead is excellent in quality, and keeps a good point. In appearance thin pencil alweys reaemblea an ordinary cedar pencil, the "ancut end of it being covered with red glazed paper, which increase the likenes, and is pleanat to handle.

## EDITORIAL NOTICES.

Advertasements ahould be sent to the PUBLISEER.
Newspapers.-Correspondents sending newspapers should be careful to mark the paragraphs they with the Editor to see.
Local News.-Correspondents will greatly oblige by sending to the Editor early intelligence of local events likely to be of interest to our readers, or of any matters which it is destrable to bring under the notice of horticulturists.
Illuatrations.-The editor will thankfully receive and select photographs or drawings, suitable for reproduction in these pages, of gardens, or of remarkable plants, flowers, trees, dc.; but he cannot be responsible for loss or injury.

APPOINTMENTS FOR THE ENSUING WEEK.

CORRRCTED AVERAGE TEMPERATURE FOR THE ENSUING WERK, DEDUCED FROM THE ORSERVATIONS OV FORTY-THREE TEABS, AT CHISWICK. $-60^{\circ} .7$.

Watering.
Therres is probably no one operation in the whole routine of gardening that is more thoughtlessly carried on than that of watering. The individual requirements of particular plants are little thought of, and "watering" is administered indisoriminately to each and all alike. Where there is a mixed oolleotion to be dealt with, the difficulties in adjasting the sapply to the needs of the individaal are, no doubt, great, but in market establishments, where large quantities of one plant are grown, and where s hoase or houses are set apart for the exclusive caltivation of some particular subjects, the diffizulties are materially lessened, though not overcome. In any case it is most important to gain a knowledge of the principles which govern the relations between the growing plant, the amount of water it receives, and the period at which it receives the supply.

That a plant needs water, suffers if it gets too little or too much, that it requires more at one time than at another, and that different plants vary in their requirements according to their conformation and structure, and the circumstances under which they are growing-all this, of course, is well known, though in practice it is often not remembered or acted on.
Again, the inflaence of exoess or defioiency of water may affect not only the individual plant, but may determine variations in the productiveness of the plant, and indaoe variations in the number, size and vigour of the seed and its contained embryo. Ia reference to these matters, the Reous Scientifique for July 6 pablishes a report of a thesia prepared by M. Edmond Garn, and presented to the Paris Faculty of Science. The general character of this thesis may be gleaned from what has already been said, but it may be of interest to at which M. Gars, a wel the conclasions on agricultural chemistry, has arrived, as they
are of great practical importance. There is, says M. Garn, an alternation in the requirements of plants for water. Continuous deprivation or continuous supply of water are alike contrary to the physiological requirements of plants. In all M. Gaxis's experiments those plants which were supplied with water at the two critical periods-the commencement of the unfolding of the leaves, and the beginning of the flowering period-and at no other time, did as well as those provided with a continuous supply of water during the whole period of vegetation. Further, the experiments of M. Gain showed that this influence of moisture is not felt equally by all the organs: it has a greater effect on the aerial than on the subterranean organs. The result of this differing influence is shown in the fact that plants grown in dry soil have thicker roots than plants in damp soil, though the stems may be equal in weight. This is in accordanoe with the well-known fact that plants of very dry countries have frequently roots which are very large in comparison with the weight and height of their aërial parts.

With regard to the influence exercised by the greater or lesser quantity of water on the propagation of the species, the researches of M. GAIN have established the two following facts, relating, the former to seeds, the latter to the tubers:-

1st. The humidity of the soil favours and greatly augments the number of fruit and seeds, but drought indaces the formation of larger and heavier seeds. On damp soil a plant yields smaller seeds, which, consequently, tend to bring about the degeneration of the species.

2nd. The number of the tubers is bat little influenced by the variation in the retentive powers of the soil for water, but on damp soil the plant yields larger tubers. There is then an increase in weight; the polarity of these tubers is, however, not mach marked, and they are consequently less perfeot than those which have been submitted, in the earth, to relative dryness.

It may be repeated that moistare perceptibly inoreases the immediate yield, but tends to the formation of imperfect reproductive organs, which produce less vigorous plants. This is to the advantage of the individual, but to the detriment of the conservation of the species. The practical inferences are obvious.

View in the Gardens at Bobahan (vee Supplementary Illastration). - The accompanying illuatration rep:esent one of the many charming bits of acenery to be found round Bushan, the Cornish seat of Mr. Pendagres Vivian, aituated about 6 mile from Fulmouth, on the $H \rightarrow l f$ grd River, and commanding lovely and extensive sea and land viewa. The mansion way completed, and the grounde and gardens laid out in 1887. Tae Gannera manicata here depicted wes a mall nursery plan: five years ago; it now measures 24 feet through, 12 feet high, and average about 8 feet accose the leaves. It is planted adjacent to a pond, and seems to be quite at home, retaining its handsome appearance until quite late into the autumn, and is amply covered over with it own leaves a protection from frost when winter atte in. Amongst the many half-tender plant foand here may be mentioned Eacalpptas globulus (as note the large one to tha left of the illastration). Cordyline aatralis and C. indivins, Embothrium coccineam, and Palme, including Chamærop: Fortanei, C. excolea, and C. humilis, some of which have attained a beight of 10 feet; alio Raphis flabellifurmis, Subal Blackburnians, and Phouiarupicala; these exiat out-ofdoors all the year round, and so far with marked aucceas. In one of the litule glens may be seen a clump of some twent $\bar{j}$-seven Trea Ferns (Dicksonia antarctica), varying from 2 to 10 feet high, which were imported direct from New Z igland , which
year ago, which are now looking as iresh and green as if they were under glass. As bowing the mild nese of the climate, it may be mentioaed that $10^{\circ}$ of frost wa the maximum we had during last winter, which wat elsewhere considered quite an exception. ally hard one. Thomas Crawford.

Mr. Barron's Dismissal.-An the circum. stances connected with the dismisal of Mr. Barror have become known, a feeling has ariven that the Conncil has committed a blunder by appointing, anknown to their own garden committee, a number of private gardeners to visit and report on the condition of a garden, the orjects of which are a different from those of which they have cognizance. That the Council should have taken such a step, and farther that they mould have dismised their Saperintendent aluo without crnsulting the Chiswick Board, shown something more than a want of coarteay. The treatment accorded to Mr. Barron is also felt as a aluron the commanity of which he is so distinguisheds repreaentative. That such a reault should have been, as we believe it was, unintentional, only hows the gravity of the blander. In the meantime the warment sympathy ia felt for Mr. Barron.

We learn that at a meeting of the Fruit Committee held at Chiswick last week, it wu resolved, after diacumion, to invite the memben of the committee to attend a apecial meeting of the body to be held at Chiswick on September 10, to consider the denirability of this body proo moting a special testimonial to Mr. Barron from the membera in recognition of his long and valued services to the committee as it secretary. If is proposed that contribations be restricted to pass and present members of the committee, and that uader no circumstances should the proposed tentimonial conflict with any other originated from the general body of fellows of the Royal Horticultunl Society, A meeting for a aimilar purpose will bo held as the "Windsor Hotel," on Tueaday next, at 3 Pm .

Royal horticultural Society.-The next meeting of the Royal Horticultural Society will bo held on Tuesday, August 27, in the Drill Hall, James Streeb, Victoria Street, Westminster. $\Delta$ 3 o'clock a paper by Mr. C. F. Bause, on "Codians and Dracæaas," will be read.

Great Grimaby Flower Show.-The fint horticultural show at this town was held under the aupices of the Great Grimsby Gardeners' and Amateurs' Mutual Improvement Society, and took place on Thareday, August 8, in the Vicary grounds. The opening ceremony wa performed a 2 p.m by Mra. G. Marshall, who was eupported by Mr. G. Marshall, Mr. and Mrs. Jack Satclifite Councillors H. J. Curry, W. Goodwin, and otheth Mach of the success of the undertaking was due to the untining exertions of the secretariet, Meum. J. L. Robinson and F. Isle. The treaturest at Mearr. J. Norton and W. Williammith. Special features of the show were the group of miccelianeow plants. Cat flower were excellent, eapecisily to 0 Rones sent by Mears. Pennell \& Son, nurnerymen, of Lincoln. Fruit was well, if not very abundandly, shown. There was an open division, which included groups, stove and greenhouse plants, table planth Ferns, Taberoun Begonias, Dahlias, Coleas, Glos. ioias, and Fachaias: cut flowers, under pariout headings of the flowers in season, an Anterth Gladioluy, Marigolds (dearly loved in the North) Carnations, and Picoteen; bonquets of rariol kinds; fruit of almost all kinds; also regetsoled An amateurs' division, in which the more in int meane and appliances of the grower, who in iot "gardener," are talken into account. This dimble included plants, cat flowers, fruit, and regetabe and, finally, there wan the division in which com tager (and, we auppone, allotment-bolders) peted, and which wat open to resideat ite borough oaly. This is a division, the to durib which require considerable extension, 00 sf to the of greater variety of produce being groms


Chiswick - The garden is now looking particalarly well. The collection of Phloxes is a sight to be seen, whilst the beds of Zinniss, Taa $R$ isem Bogonias, and other plants are remarkably good. The fruit crops are generally satisfactory. Some of the houses are fall of Fachsias and Cannas, so that a visit just now will well repay the gardener.
newcastle and District Horticultural Mutual Improvement Society.-The monthly meeting of this society was held at their room, 25, Westgate Road, on Taesday, August 13, Mr. Larke, North Dene, Gaterhead, presiding over a good attendance of members. The secretary, Mr. J. Elliot, Jun., read a paper on the Cyclamen, in which he recommended nowing the seed in Jaly and Angust, or as soon as it was ripe, in preference to the spring. A discussion followed, in which many took part.

Mr. SOWERBY.-Coincident with the retirement of Mr. Barron from Chiswick comes news of the withdrawal of Mr. Sowerby from the management of the garden at the Regent' Park, with which he has so long been connected. Mr. J. B. Sowerby succeeds to the post vacated by his father.

Woburn Experimental Fruit Farm-a party of ferty agricultural stadents attached to the summer college of the Bedfordshire County Council, visited the above farm on Tuesday, August 20, by permiasion of his grace the Dake of Bedford and Spencer Picigeing, Esq. They were conducted over the groundr by the manager, Mr. Castle, and the general scope of the experiments already commenced was explained. Mach interent in the work was evinced by the visitors, who were chiefly achoolmaters engaged in the county, and who are qualifying for teaching classes under the technical education department.

Hardy Plant Collecting. - In the columas of the Garden, Mr. Burbidge advocates the formation of a club or co-operative society for the parpose of defraying the expensea of reaident collectors in various coantries. In this way the services of consuls, missionaries, and traders could be utilised. An organising secretary is needed, and the services of a competent botanist to indicate likely countrie and desirable plants, and to identify them when received are also denirable.

Addition to the lincoln Abboretum.-The formal ceremony of opening the new portion recently added to the Lincoln Arboretum took place on Wedneaday afternoon, August 14. The piece of land, about an acre in extent, was parchased by the late Mr. Nathaniel Clayton, to prevent the building of house overlooking the mansion and grounds known an Eantcliffe, and last year was presented to the Corporation by Mr. N. C. Coceberen, his grandson, on the underatanding that no bailding, unless it be a lodge, should be erected thereon. The land has been handsomely laid out with flower-beds and trees. Inside the entrance-gate is a granite slab setting forth that the land was the gift of Mr. N. C. Cockburn. The cost of the work is about $£ 1000$. At the opening ceremony, Mr. G. H. Pact, chairman of the Arboretum Committee, presented the Mayoress, Mra. A. W. Hall, with a silver-gilt key, which fit the lock to the entrance gate. She then declared the new portion open, and votes of thanks to the donor of the land, to the Mayoress for her servicen, and to Mr. H. E. Milner, of Westminster (who farnished the design), were patsed. The Yorkshire Daily Post.

## Aponogeton digtachyon Var. lagrangel,

 ANDfE-This is a seedling variety, raised at Oallins (Rhone) by M. Lagbangr. It differ from the type in ita larger leaves, parple on the undersurface, and in the floral bracts being of a dull rosecolour. A coloured figure is given in the Revue Horticole for Aogant 16.Rubus Capensis -In the Garden for Aug. 17 is in illutration of this interesting specien from
a photograph received from Mr. Burbank, Santa Rona, Calitornia. The leaf in palmately 5 -lobed and ragone, like a Malberry-leaf. The fruit is parplish and of excellent quality. It is supposed it may be the Rabue of which Stanley speak an growing in places in tropical Africa.

Winter in New South Wales - Briton are apt to think that the right to a peculiar and changeable climate, and the habit of making it the topic of everyday converation, is exclasively their own. Oar correspondence with all parts of the world often pats as in possession of information proving that, in neither particular, are they different from their brethren in what are considered more favoured climes, for everywhere peculiar weather looks in at timen, and those experiencing it think it is fair game to talk or write abont. Writing from New South Wales under date July 8, 1895, our correspondent, "J. H. K" ays: "I think this is the mont severe winter I have experienced in this country during the long time I have been here. Every morning during the past week there have been $8^{\circ}$ to $9^{\circ}$ of frost, and consequently some of our shrabs have auffered, Allamanda neriifolia and the Melastomar in particular. The Bougainvilleas are uninjured. I am surprised to find what a hardy old thing B. apeciosa is, Siveral large pieces growing in my garden have been repeatedly frozen, not only this season, but previously, and come out quite anharmed. My experience is, that the more exposure it gets the freer it blooms.

Peter Lawbon \& Son, Limited.-At the ordinary general meeting of the shareholders of this company, held on Tharsday, Augast 15, within the registered office, No. 1a, George IV. Bridge, Edinburgh, the report as issued to the shareholders was unanimously adopted, recommending a dividend of five per cent. per annum on the paid-ap capital, free of income tax, should be paid on September 2. and that the balance of $£ 46830 \mathrm{~s}, 3 \mathrm{~d}$, be carried forward to next year's account. The retiring directorn, James S Eastes, Eiq., Ashford, Kent, and Andrew Patrrson, Eeq, C.A., Edinburgh, were re-elected.

DIsA arANDIFLORA.-We have had sent for our inapection by Mr. H. Bailey, the gardener at The Briars, Reigate, some flowers of Disa grandiflora which are of an antonishingly large siza, most of them measuring on arrival 5 inches from the tips of the sepals to that of the lip. As cat lowers, these Disas are admirable, lasting in water for quite one week. Mr. Bailey has been waccessfal in flowering these plants for the past twelve yearn.
"Botanical Magazine,"-The Auguat number contains coloured figures and devcriptions of the following plants:-
Prochynanthes Bulliana, Baker, t. 7427.-This is the plant described by Mr. BaEER in our columns in 1834 , ii., 328, as Bravoa Bulliana. As a genus, it is intermediate between Polianthes and Bravoa, having bell-shaped purplish flowers, curiously bent downwards in the middle. It in a native of Maxico, and flowered at $\mathrm{K}_{9}$ w in 1894.

Saccolabium Mooreanum, Rolfe, t. 7428 ,
Spirce bracteata, Sabel, to 7429.-A Japanese apecien, which hat been called in gardens S. media or S. rotundifolia, or S. rotundifolia var, media. We hope the nomenclature may now be conaidered nettlez.

Pyrus sikkimensis. Hook. f.-A Himalayan Crabapple flowering at $\mathrm{K}_{\theta}$, and presumably introduced from Sikkim by Sir Jcesph Hooker.

Pleurothallis Ecapha, Fchb. f., in Gardeners' Chronicle, 1874, vol. ii., 162.

Melon Growing and Artificial Manure.The gardener at Minstead Manor forwards a photograph of a Melon-house under his care, to whow the offict of the Cbelsea Manure. The manure, he says, soon tateseffict, and be was easabled to cut 175 fraita from fifteen plants on which it wss used, the total weight of which was $4 \mathrm{cwt}$.1 qr .2 lb .
M. J. Vesque.-We hear with great concern of the death of M. Julign Vesque, one of the most accomplithed botanists of France. M. Vesque paid great attention to physiological botany ia its application to agriculture and gardening. The relation of minute atructare to fanction and the adaptations to altered conditions were atudied by him with anccess. Oae of his lateat works was a volume of the Suites aus Prodromus, devoted to a Monograph of the Guttiferæ, in which the anatomical structare of the leaves is made use of as a "character" to be utilised with others in the diacrimination and delimitation of apecies. We have no doubt that similar monographe will in future be compiled.

The Supplying of Bulbs to the london Park8.-Mearts. James Cabter \& Co, meed merchante, 237, 238, 246, and 97, High Holbord, London, W.C., have again been honoured with the command of Her Majeaty' Commianioner of Work to supply the balbs for the Royal Parks of London and they have alao received a similar favour from the London County Council for the parke, gardens, and open pacea ander their control.

## BOOK NOTICE.

## A Garden of Pleasure. By E. V. B.

## (Elliot Stock.)

The pleamant articles in our columas descriptive of a Buckinghamshire garden, and reprinted under the title Days and Hours in a Garden, are still held in fresh remembrance. The prement volume is of a nimilar character. Ita records pertain mostly, if not entirely, to the ame gardea, and they are framed in the ame refined, aympathetic, and original way. They are not meant to be criticised, bat merely to be read and enjoyed. Oue or two points we may be permitted to allude to, and firat as to the graciona remembrance of the gardener.

- And now, departing not from the custom which holds with letters as with prefaces, and by which the last word is woat to be the most important, a word must bs said for the Chief Toiler of the garden, in whose hands lies the responsibility of success or failure. Perhaps there masy not be many who success or failure. Perhsps there mach lines as these; not would choose s gardener on such thes candidate into many would, so to speak, tais, the candidato int the garden, and pointing to a Cibsige or a Currant-bush, give the order thus :- Dig a hole and plant diat currant head downwards, and if forthwith the man did as he was
told without a word, engage him on the spot ! Yot I bolieve such imperiousness does exist, and then-is fatal to the garden. We may love dearly our flowers; we may know (or think we know) everythiag about them, and call them all by their names. We may believe wo are Master, and that things being done entirely under our directioas, evergthing will grow, and all will bs well. Yet nevertheless nothing will grow, nothing will be well unless the gardener is also in Will grow, nothiax will a sense, on his sile, master. Oll aff iirs which cums spesially give him a free hand over all aff niry which cumg speciany under his control. Give him a living interest in the garden by letting him exercise his tiste (subject al ways to yours) in planting and in arraggemant of olloscy, \&c., a ad by showing your own constant interest in it; and if the $m a n$ be possessed of grod Intelligence and Experieace, if his heart 18 in his work, if he has it in him to Susseed, suczeed he will. The garden and the gardeaer will grow, as it were, to underatand one another, and you to trust and understand them both, while your content and g'alaess in the garden will increase and grow with the yesra' increase.
"And here a grateful tribute must find placs, for the gardener, Jesse Foute. by whose rare skill this plot grew into a Garden of Pleasure, whose ceaseless csre has maintained its Garden of Pleasure, whose cesseless and who completes the charm for three and twenty summers, and 2nd of May (1895), Thirtieth year of his devoted service oa the 2 2nd of
with which well-omened date I olose my Preface."
With auch reciprocal good feeling all ought to go well, and generally doas go well, in apite of the contrarieties that alwaye will ariee in the bent regalated of gardens, from canser bejond the control of master or man. To one other aubject wo may refer, in the hope that the dathoress may clas the matter up.

With reference to the introduction of the Pineapple to this country, there are some discrepancies. "E. V. B." here tells us that Juha Tradencant lived once at Dorney Court, near Maidenhead : -
"There is some tradition that there be presented his Pineapple to Charles If, and it is not many years since a little warside publichouse near retsinet still the sign of a Pine apple. The [Pine-apple] was the first grown in England. At Dorney Court there is an old engraving which represents Tradescint kneeling bafore the King in a gardea presenting his Pine-apple."

So far "E. V. B." Bat according to Johnuon's Hitory of English Gardening, it was John Rose, gardener to Charlea II., at St. James's Palace, who presented his Majeaty with the firat Pine. "There is a portrait of Rose in oils at Konaington Palace, representing him giving the firat Pine-apple caltirased in Eogland to Charles II., whilat that monarch was on a visit to Ros'a's mistrens, the Dachess of Cleveland, at Dawney (sic) Coart, Backinghamshire." John Evelya savg he saw the firat Pineapple presented to the King ia 1661 , and twentyseven yeara later he was priviluged at the Banquetinghouse to taste a pieca from His Majasty'm owa plate but apparently he was not couttier enough to fall into ecstacies over it.
A copy in water-colours of the pictare in Kensingtor Paince above referred to, was in the library of the Rayal Horticultaral Society even no lately as the time when the Lindley Library was housed in the nearly inaccessible shed at South Kensiagton, but, anfortanately, it has disappeared, and we believe it hat not been seen since the transfer of the booke from South Kenaington to Victoria Street. It may be that this Pine was not grown here, bat in Holland.
In any case, we have Tradescant and Rose, St. Jamen's Palace, Kensington Palace, Durney Court, and the Banqueting-hoase, all mentioned in connection with the first Pine grown in this country. It is not likely that both the gardeners and all the localitien mentioned were concerned in the matter. What, then, is the true version?
It is probable that there is some confusion between the Pine imported from Barbados and elsewhere, and that which was really ripened under an Eaglish sun. It is alao on record that another Charlen, that is Charles V., was offered a Pine-apple, but refused it, and declined to tasto ito Batter authenticated casen of Pines presented for Royal acceptance are that weighing $9 \mathrm{lb}, 40 \mathrm{z}_{\text {, }}$, and pre*anted in June, 1820, to his Majesty Grorge IV. by John Elwards, Evq., of Rheola, Glamorganehire In 1821 another frait of the gamas variety, and weighing 10 lb .8 uz., was grown at Stackpool Court Gardens by Mr. Bachan, gro to Lh. Cawdor, and forwarded by the Royal Horticultural Society to his Majesty. This frait was served up at dessert at the coronation banquet.
Oar suthor's book has rendered un diecarsive. It is perminaible to be no in due eason. Last thuse intereated in gardens who want a plenasat book to stow away in their portmantean for pornasl during
vacation hours not forget this vacation hours not forget this Garden of Pleasure.

## RAVENSCOURT PARK, HAM MERSMITH.

Anonast the maller suburban parks under the control of the Loadon County Council, thier (sbout 35 acter in extent) certainly ranks as one of the prettiest and bent kept. The grounds here, when in the posseasion of the late George Scots, Esq., were laid-out by the famous landecape-gardever, Repton, Who made great improvementw. A very fine avenue Of Eime leading to the houre (now converted into a Free Pablic Library) in a fentare of the place. This
way formerly the Manor-houne, and way ealled Ravenseourt, a capital mansion, built in the atyle of the French architect, Manart.
The placz has interesting horticaltaral associations, for opponite to one of the main entrances to the Park once lived Lonis Weltjie, Esqu, at that time a famous grower of Auriculat; his nama is atill perpetuated in Weltjie Rosd. Not a atone's-throw from here lived, too, one who in hia day made himnalf famour by his culture of Dablias and Celeryto wit, the late Charles Lidgard, of the Old Thatched House. Hammerrmith will alwaye be noteworthy
from a horticaltural point of view in connection withen from a horticaltural point of view in connection with
the very old firm of Lise. the very old firm of Lse.
Returning to the Park, it in a great boon an an open apace to the inhabituate of Hacruenonith, with
itr beatiful flower bodf, stately trees, wisding
walks, und sequentered eeats, and lake. Several
improvement have recently been carried out. An addition to the lake has been made by carrying the water round some large trees, forming an island which has greatly improved ita appearance, and will give increased facilities for akating.
The roagh piece of ground adjoining the main road has been laid out in beds and shrubberies, the bare places between the newly-planted shruba being filled up with a good selection of Canterbury Balls, Carnations, and varions bedding plantes, edged with Violas, making quite a bright and pleasing display. Oae long border was very gay with an edging of Viola picturata, a profuse bloomer. The effect produced by these mixed borders is far preferable to the formal lines so often seen. A great advantage possessed by the mixed aystem is, that as the plants go ont of fower they can be replenished without much tronble from the remerve-ground, not necessitating the taking up whole lines of plants.
Pelargoniums are not used in any $\mathrm{o}^{5}$ the beds, but in the mized borders Fachaias were largely used for beds, and dotted on the grass; how effective and graceful they are used in the latter way! A very large acroll-bed (of which we give a sketch, fig. 44) was an effective feature, being done in a free-hand design, representing a trailing stem with leaves. The main stem or scroll was composed of Alternanthera versicolor, the large leaves were done with $\mathrm{A}_{\text {. }}$ magnifica, small leaves with A. aurea, the groundwork being Sedum glancam.
Several beds were edged with a very profuse blooming dwarf white Alyssum, which $\Upsilon$ have not seen before. The rockery here is getting established, and is a source of interest when its various occapants are in flower. It should be mentioned that the park is well managed by Mr. W. B. Gingell, who has effected several mach-appreciated improvements aince he took charge some five years since.
Other plants nsed in the design are Kleinia repens for the larger leaf-veina, Alternanthera aurea for the maller onen, Echeveria secunda glanca for the edging; whilst Herniaria glabra, green Sempervivum and Mesembryanthemum cordifoliam variegatum are also ased in places which the limited size of our illastration does not permit as to indicate specially. J. $B$.

## home Correspondenoe.

A NEW VARIETY OF GOOBEBERRY,-I have ment you a few Gooseberries for your inspection, which I have named White Warrington, the reault of a sport. Never having zeen any myaelf before, nor anyone about here, I think they will be a great acquisition, as evary gardener knows the good qualities of the Rod Warrington. I have two nice bushes, and have had them for six years, and they alway: keep the same. Pleane let me know if you have ever meen or heard of any before. L Dow, Newbyth, Prestonkirk, N.B. [It is identical in shape of berry, hairyness, and flavour to the Rad Warrington, and is likely to become as great a favourite as a demert variety as that one. The sin is fairly tough, as in the red Eariety, and the berry should be se good a kreper.

PREAERVING FRUIT.-In reply to the variona queries of Mr. D. T. Fibh in the Gardeners' Chronicle of August 17, p. 180, upon the sabject of preserviag fruit, I beg to submit the following replien: -1 . The time for the development of the maximum propertien of the gelatinising of fruit in the process of preserving them should not exceed one hour. The time mut of necesaity vary according to the juicynews of the frait, 2. The maximum time for the developInent of fruit jelly should not exceed twenty minutfs. Pariscusion which followed the delivery of Mins Parios's lecture, she repeated her remarks about pectine, to impress apon the mind of the audience the fact that much cooking of frut in making jelly tands to impair the quality of the jully; and that in many casen the product in not jolly, bacause that principle in the fruit had been expelled by the cooking, leaving a thick syrupy fuid. 3. With regard to the a of Lemon jaice to keep frnit white after paring, it would appear that the acid form: an organic compound on the outsides of the fruit which prevente the discolouring. 4. It is most probable Eaglish housewives. J. J. Willis, Harpendes deaied to

SLUGS AND WORM8.-The animal which Mr. Robert Warner mentions in your issue of the 17 th inst. under the name of the "earth-alug" is evidently a Teatacella, which is the only Britioh genus of sluge which have an external ahell (which is aituated at the end of the tail), and which feed on live worms. The large black alag, Arion ater, is reported to eat worms, but my observations during more than fifty years incline me to the belief that Arion ater want somebody to catch and kill a worm before he could make a meal of it. W. Tr Bishopsteignton.

8LUGS DE8CENDING BY A LINE OF SLIME.-The several commanications in your lat two number are very interesting, bat only confirm what has long been known to tudents of British mollasca. If Mr, De B. Crawshay will kindly send mo the next specimen he may find alive, I shall be plersed to identify it for him. I saspect it mey prove to be Limax arborum, as I have caught this species coming down from a tree in Knole Park, Sevenoaks, within a mile of Mr. Crawshay's house. Ojher aluga known to descend and climb, are L. agrestie, which is creamy or pale grey, and about 1 inch long; and $L$, Sowerbii (formerly kanwn as L. carinatus), which is chocolatecoloured, has an orange keel down the middle of the back, and is 2 inches long. Both these pecies are common at Sevenoaks. W. Thomson, Bishopsteignton, South Devon.

FAILURE OF PLANTS OF SUMMER.FLOWERING ASTERS. - I send herewith two or three Asters which have gone to the bad. Can you tell me in your next isane the cause, and, if possible, the remedy? I have only lost about a dozen plants in this way. They are perfectly healthy one day, and next morning they look as if the leather grab had been doing his worst, but I have not been able to find the calprit. I am told that a gentleman in Spalding, whom I know very well, paid no less than £8 this year for Aster seed and plants. He has a very extensive garden, and I have bat a mall one; notwithstanding this, however, I have at the present moment perhaps the finest show of Asters in the diatrict. It is very annoying to have your planta go off just as they are coming into bloom, and I hear that his plants have served him the same trick. Any information or advice will be thankfully received by Rohert King. [An expert to whom we sent the plants writer:- " The plants are perfectly free from all forms of fangoid disease, and I cannot suggent any cause for their pecaliar behaviour. G. M." ED.]
bedding arrangements in st. james's PARK.-On entering the park from the entrance on the western side of the Horse Guarda Parade-ground, on the left will be seen some groaps of plants on the grast, consissing of Dracæna, mixed Fachsias, and Heliotropes, which now look very well. Going furtber west, we come to a mixed border of Fuchais, Heliotropen, Canass, Marguerites, Nicotiana afinis, Pentotemoza, \&c., farniahiog a krand appearance. Here are also five beds (three circles and two oblongs) ; the oblong becls are planted with Iryleaved Polargoniuma Ryecroft Sarpriep, with a carpet of mixed Violae. Three circlen:- The ceatre bed is Fuchaia Marinka, having a carpet of Alteraanthers major; the two end bed lnoking very good, being planted with Fuchsia Mrs. Rundell, having a carpet of Alternanthera major, and nome dot planta of Abutilon Boule de Neige. As the rear of thete beds is a large circuiar bed, planted with mixed sub-tropical planta, which are doing well. Still further wat il a dell haviog plant of Muas Eacole and Palma, planged in the grase, and preseatiog quite a tropical apparance. Most of the bordert in the park have their margin planted with the unall ammer bedding plants. Bold masive groapl of Iris, Pulygonum, and other plantis at the edgo ornamental the ornamantal water give the park quite a naique and effective tinish. In the equare near the Hoace of Parliament there are some beds which at the present time are doing well; they are planted witu Fachsias, Pelargoniams, Cannas, and Eacalyptare Considering that they are sarrounded by dasty ronds and other anfaroarable conditions, is amply demon trater what can be done ia a gadening was
may be called the heart of Condon. J. $B$.

THE DOUBLE ROCKET.-Of this old inhabitatit of our gardens there are three variaties, as far st in own knowledge goen-riz., the trae doable whe which one fiads in Lancashire, Yorkshire, and the norti, which doss not appear to do well in ingthern courtiov; the talter and more robuter the)
are become tinted with pale lilac; and the double parple, which in inferior as a decorative plant to either of the foregoing. A fourth might be addedthe double yellow-Alowered Barbarea valgaris, which is known in ome localitiss as the doable yellow locket. The firt threo appesw to be getting scarce planta, they were acarce fifty years ago, and it mometime does badly, and hence it appears to be worn out. I do not believe that the plant is worn out; any lone of vigoar may, I think, be owing to improper calture or neglect. The double Rocket is a plant that decline in health an moon as it is neglected, and there is no dou'st but that the fine specimen ometimes met with in cottage garden are petted plants, and therefore well looked after. Of method of propagation, that by means of catting is preferable to diviaion of the roots in September. The adrantage of propagating by cattings is that the plants have more time to establish themelves before inclement weather sets in. Cattinge should be taken When the shoots are 10 to 12 inches in leagth, dividing them into three joints in length, the
ome flattering noter I msde last year of the fine trees seen in the Bournemouth Cemetery. These were pictores of health, verdare and beauty, with no trace of the rusting or dying off the lower branchet that so often mars the symmetry and beaty of Arsucarisn. The lines along each side of the msin walk were in robust health, and apecially green and flourishing. It seeme a mistake to call any number of lines of Chili Pines avenues, as most of associate the name with lines of overarching verdure and bearty, and it would be impossible for Araucarias to form such avenues, however high or wide they might grow. Neverthelens, regular linea or ranka of atately Araucarias, or groups or masen of them, where they do as well as around Bournemontb, Bicton, and a few other places, have a striking and a very original appearence. Possibly. Mr. Ward is right about the soil being somewhat light mandy peat about B uarnemouth. Tae common Scotch and other Firs thrive well in it, and oo doen the Araucaris. And yat I have seen the Chili Pine do well on loam: of various textare. Provided the latter is well drained, fairly dry, a moist genial atmonphere has
that were in water on the counter, viz.. Lottie Eck ford, Emily Henderson, and Princens Beatrice. The firnt being white tipped with blue, the necond a well-known white, and the third a deep pink. H, did what he andertook to do, although the thower wer changed into other glases, and correctly naming each of the three varietien by it fragrance only. The manner in which the teating was done is given in the words of an onlooker, and is too long for un to insert. ED] I do not give this through egotism to the readers of the Gardeners' Chronicle as being anything wonderful, but venture to angent that colour in flowern may bave something to do with perfume. In Rosep, for inatance, the rich crimson are always the richent in odour. [How about Marechal Niel? ED]; and I think Rosegrowern may, blindfolded, be abie to do with Rosen what I did with Sweet Peas. Certainly the one called Cardinal, in scarlet, is to my mind, slmost the finet in perfurne, excepting Princes Beatrice, a rich pink. The variety Emily Henderson is the weakest. but the best of whites. What say your readers? Wm. Baylor Hartland, Ard Cairn, Cork.


terminal bud being taken out, otherwise it may become a blooming thoot. A bed for the reception of the cutting ahould be prepared uader a wall, or better atill, in a small frams; and a compost for them to be inserted in, made up by mixing threeparts of goud mellow loam with one of sharp esand, taking care the latter is in quantity near the aurface. The cuttiage shoald be iaserted with two eyes or buds below the surface; a good uprinkling is then given, the light placed on the frame, and the cuttings shaded from the gnn, water being afforded as may be required. When treated in this way, cutting rarely fail to roat. An old gardener, who was very accossful with the culture of the double Rocket, staten:- "Where it is wished to grow this plant in a high state of perfection, care should be taken that no manure whatever forms a part of the soil in which they are planted, an it will cause a strong exaberant growth, and materially diminish the chances of propagation, either by cattings or divivion." The doable Rocket does well in a good fresh loam, with which a little leaf-ioil may be mixed if thought to be too heavy; in anch the plants will grow atocky, they will throw up many otems, and bloom in thick dense spiken 1 foot or mo in length. Soms of the old growers who made a pet of thit plant would allow their plante to bloom bat twics only, considering they had reached their higheat stage of perfection when they flowered the second time. A few cuttings whould therefore be atruck every year, so that a axccemion of plante may be assured. $A$. D.
araucaria imbaicata at bournemouth Mr. H. W. Ward'e remarks sboat the fine Chili Pines at B-ankeme Daan Park. Alderbury Vicarage, in the Gardeners' Chronicle for Jaly 20, reminds me of
probsbly more to do with ite verdure and health than any particalar moil. At Catile Keanedy in Scotland, as well as in other genial places throughout the Uaited Kingdom, fine Arancarias may be met with. Bat in Eat Anglia, the climate seems too dry for it, I had, however, a fine specimen under my care for tome years at Glevering Hall near Woodbridge: this was said to be one of the earliest imported. Fur many yearn it continued a picture of health and beanty. No surface care, however, nor top-dressing could stop the bottom branches from rasting off. This fine apecimen, however, was on heavy losm. Other on lighter oils, however, followed ita example after a time, and the majority of the Chili Piaes in many moist localitien. Even at Bicton in Devon, under the skilfal cultare and planting of the late Mo. Jamea Burnen, so distinguished for hir cultivation of this and other hardy and semi-hardy treen and shrubr, and where the Araucaria grew so freely, and coned so well, that not a few began to see in it a future source of food grown in the ine inde, not a few of the fine atately, trees became more or leas ragged. And Mr. Barnes' bold venture of growing and ripening Pine-apples in the open air is about as likely to be realised as the saccesaful cultare of the Chili Pine to the higheat perfection of aymmetry and verdure. D. T. F.
colour and perfume in sweet pear.-Have any of gour reader obsprved how different are the perfomes of Sweet Paas? Some of them have that of the Rone, all more or less quite distinct from each other. The white varintie are particularly weal in odour, while the scarlets and pinki are very strong. To-day I ventared to maggent to a few friends, and my warehoune assistante, that I could blind-folded tell the names and coloure of three very distinct varieties

## Law Notes.

THE NATIVE GUANO CO. $v$. HIBBERD.
Is the City of London Court, before Mr. Commisaioner Kerr, the cane of the Native Ganno Co. Lid. $v$. Hibberd was heard, in which the plaintiff company, of 29 , New Bridge Street, E.C., nought to recover from the defendant, Mr. Henry Hibberd, gardener, Grange View, Batley, Hants, the anm of £3 for guano aupplied. Mr. Jame Welfare appeared for the plaintiff company. The defendant said the reason he declined to pay for the gano was because the material which wan sant to him tarned out to be different to what it was represented he should have. He had to give it a trial before he knew what it wae like, and so he had broken into it. $A$ soon at he found out what it was really like he wrote to the plaintiff company and diapzted bis liability. Mr. Commisnioner Kerr mid it might be useful to the defendant and other to know that when be received good which were not according to the reprenentation he ahould at once return them, and on no account keep them on his premiset. He had been telling people for a long time, but they did not seem to pay attention to what he told them. The defendant might bring an action for damagea if he liked, but in future he must see that he received the right suff. For thirty yeara he had been warning people againot the advertised ataff which were continually sold. Tone only thing be could do was to find for the plaintiff for the amount claimed, and give them the costs of the litiggtion.

A Question in the Seed Trade.
Mesmra. Toogood \& Sons, reedımen, were sum moned before the Southampton magistrates on Tues day for selling weeds improperly described. Mr. E.J Trustram proeccated, and Mr. Page defended. The question raised was whether the seed trade generally was allowed to sell a particalar kind of seed which hat been named after the original prodacer, or whether the inference should be gathered that in consequence of that seed having a particalar producer's name, it must necessarily have been produced by him. Mr. Shephard, seedaman, of Stockbridge stated that after many yeara' trial he had produced Shephard's Kale, which was registered as a trade-mark, and which he aupplied to farmers only, and not wholeale. He had never applied any to Mencra. Toogood, and the seed sold by them was inferior to his. He claimed that there had been an infringement of his trade-mark, and that when a personal name was put to a seed it was supposed to be grown by that perion. He would not owear as to the cautom of the trade, bat only as to Kale. After formal evidence of purchase, it was agreed to adjourn the cave until September 11, counsel stating that the case was so important that it might go to the Hoase of Lords. It was intimated there was a perfect defence, and that the defendanta had only followed the cuitom of the trade. Times.

## LOW'S GROUND-COMPASSES.

As the ground season will soon be apon as, when many will be basy renovating old and laying out new gardena, permit me to direct the attention of your readers to thic usefal patent of Mr. Low, for many yeara the gardener to the Dake of Grafton at Eanton Park. In this position Mr. Low has had much experience, not only in the farnishing of the flower-gardeas, but has likewise had mach practice in remodelling and making the major portion of them on new and more gracefal linen. The character of the garden, at well ac of the manaion, almont necesuitated formal or geometrical treatment, and all who have had any experience in anch work know what material help may be derived in the laying-out of flower-beds and borders from reliable compasses 4 feet long with a radius of 6 feet to 6 inches or less. Than necessity as uenal became the mother of this most usefal invention, which I have found to do readily and well all the work promised for it, and more than in promised in Mr. Low's prospectus. They are saperior to any others I have used for landecape-work, in their neatness, fixity, certainty, and durability. As seen at a glance by the woodeat (6g. 45, p. 219), the staff shows the patent compases at rest, posing or reposing. A sight-staff for the forming of perpendicalara, b, shows them at work with the left leg reating on a solid base, and the right fixed to any given radian by the slender connectiograil, secared in position through the small thambcerew on the opposite or dencribing leg; the compasees aloo secure fixity of depth and certainty of rudiuf. The square block, pushed into the ground, with its brass-furnished hole, for the atable leg, secariag the first, and the connecting-ppline and thamb-acrew the necond. What these two conditions are, and how much they mean, can only be thoroughly underatood by thoue who have had to lay out difficult and delicate denigue with common companses.

As to darability, both lege are shod with branf, and the wood is of the beat, and thoroughly seamoned. For setting out small holdings, allotments of frait, flower, or vegetable gardens, walkp, measuring the distances between frait trees and bushes, or other crops, setting out amalle, thene compasses form the handiest of all measuring-rod. D. T. F.

## SOCIETIES.

## ROFAL HORTICULTURAL.

 Scientific Committee.Avgost 13 -Present: Dr, M. T. Msuters, in the chair; with M-. MeLechlan, Mr. Bayber, in tha
Weathere, and Kat. G. H-ailow, Hon. Sec.

Black Currant $\times$ Gooseberry, $-A$ fruiting specimen of this hybrid was sent by Mr. CuLFERWELL. It was previously received and described in the minnutes of the Scientifc a very
mittee for Jone, 1890 . The fruits are emall, and have a very mittee for Jone, 1890. The fruits are email, and have a very slight tate of the Black Currant, The bark reveals thlancular
more distinctly, while the skin of the fruit has the glandula more distinctly, while the skin of the fruit has the glandular
hairs of the latter mixed with the ordinary hairs of the Gooseberry.
Lilies Diseased.-Specimens of the foliage of L. Lowi and L. nepalense were received from Messrs. W LlLace, of Col cheoter, attac ked by apparently the too common "Lily disease"
fungus. Bordeaur Mixture is suggested as the best remody fungus. Bordeaux Mixture is suggested as the best remody. He observed that the disease in his garden only attacks the
Lilies received from Burmab. It was formerly thought that burning was the only means of extermination; but experience bas shown that the bulbs may not be at all injured, and that as the disease may be very prevalent one year and very scarce the next, it will be better in future to
destroying the aerial portions attacked.
Lime and Bees.-A spray of a Lime tree was received from Mr. F. EMock of 21, Manor Gardens, Hollovay, to be named. It proved to be Tilia petiolaris, D.C. He also observed that numerous dead bees were found under the tree, suggesting that the honey might be of a poisonous nature. In a com munication from Kew, whither the specimen had been sent, it is observed:- "We have long noticed at Kew that bees are lilled after visiting the flowers, and quite a circle of dead bodies are found under the branches every summer." Mr. McLacslan remarked that this occurrence has been long Knowa to entomologists, and by the watching of the trees by Mr. E. Saunders he found that the death of the bees was caused by the
Lettuces attacked by Aphides.-Plants received from the Chiswick Gardens showed the roots to be badly infested by these insects. They were
for further eramination.

Potatos Diseased.-A communication was received from Mr. Ashley, Elmeroft, Staines, stating that "the leaves appear to be spotted with brown, where holes appear; the leaves subsequently curl up. The disease occurs in patches, and gradually epreads. It is not confined to one sort of Potato alone. I noticed the same disease on some early Potatios about two months ago, and washed the leaves with very weak paraffin and water. TThis seemed to stop it."
Having been forwarded to Kew for examination, the report is as follows:-"The young leaves are in the first instance punctured by an insect; the wounds made are the points afterwarde attacked by a microscopic faugus-Macrosporium Solani-which completely destroys the tissue, hence the holes in the leaves. Spraying with Bordeeux Mixture will destroy both insect and fungus; but if a solution of very weak paraffin has proved effectual it woull be wise to continue its use The great point in spraying, whatever solution is used, is to thoroughly wet toe lesves., A little soft-soap mixed with the liquid assists in doing this.
Weataers exhibited Deodara Struck by Lightning. - Mr August 12. It represented a Deodara which was shattered by lightning on the night of August 10. The main trunk is cleft in twain almost to the base, while large splinters and branches are scattered abjut. The wood is perfectly sound, and shows no signs of charring. The tree was abjut 30 feet tn height.
Custanea vescx, Female replacing Male Flowers. - Me. HENSLOW exhibited specimens of this exchange of sex, as
being particularly abundant on a Cnestaut-tree this season; a probable result of the climate, as it is well known that external conditions often decide which sex shall pedominate when a plant is naturally bi-semual. He alluded to experiments by Mr. Meehan, Hoffama, and his Own, in which seeds of bi-sexual plants gave rise to various proportions of males and femkles, according as they are sown very thickly or thinly.

## Fruit Committee.

Adgust 16-Present, at Chiawick, were H. Bisderaon, Eiq., in the chair; and Menart. J. Willard, G. Wythen, J. Hadson, Mr. Fife, A. Dean, W. Farr, J. Chenl, and J. Sxith. The committee's attention was first drawn to the Tomatos in pote, of which there is in various houses a very large and well-grown collection; very few, however, are really new, and none seemed to show anything apecislly meritorious beyond what can be aeen on eatablished varieties. The following had pravious awarde of three marks or of certificates, granted at the Drill Hall, confirmed:-
Golden Princess, fine deep galden fruits, very handsome and prolific; Temis Bul, fruits freely produced in grod clustera, medium-size, round, rich colour, and pretty; Comet, large, handsome, smooth, rouad red iruits; Sutton's Dessert, smallish fruite, borne in clustera, scaclat; and sutton' Golden Nuggat. a counterpart of the previous one, fruite rich yellow, buth abuadant fruiters as dessert variesies; Fragmore selected, a large hindsome free-fruiting variety, searlet colour; Duke of York, recentily certifi ated at the Drill Hall, also having fine scarlet fruits; Chemin, a will-mowa scarlet-fruitel variety, and the bstter known Conference. Two sorts not previounly noted, were Sutton's Early Jaly, an improved open-air, and the cherry-bhaped, a very old sort, fruit sca sh, round, scarlot, and borne in raserses, specially mentioned for its high flavour a deseert variety. Each had three marka awarded.
Rumner Beans next came under notice, those of British stock boing generally excellent; whilst Continental varie-
ties seem to have suffered from the cold rains. of the Scarlet or rough Ranner types, Sutton's Prize-winner, splendid long green Bean; Sutton's A.l, also good; Leviathan Capp's White Runner, a fine and very prolific white flowered variety, had each three marks awarded. Of smooth rumens the only ones regarded as worthy of special notice were Sutton's Tender-end-True, and Veitch's Climbing French Beans, previous awards being confirmed; the committee, however, seeing these two Beans growing here together under precisely aimilar conditions, came to the important conclusion that they are absolutely identical, they all the same leave to others to determine under which of the above names the rariety shall henceforth be recognised.
The adjoining trial of Cabbages was then inspected, there being a first-rate growth on all. Of the dwarf early varieties, the best stocks were Improved Nonpareil, from Messps,
Nutting \& Sons, and Messrs. J. Veitce \& Sons, both of which received three mark3. A better dwarf Cabbage could hardly be found anywhere. Of succession varieties, the best were Sutton's Earliest, Barr's B sat of All, Vilmorin's Express, and Les Etampes, all of which the committee reparded as of the same stock, and a first-rate one. This is probably the best mid-season Cabbage in cultivation.

Red Cabbages were also noted, the stocks of Benary, Vilmorin, and Sutton's Dwarf being the best, also very dwat, early, and compact. A final deoision as to the merits of these
will be given at a later meeting, when the Potatos will have to be examined. Of these there is a large trial, but, like Potatos everywhere, the growth is excessively strong. $A$ few early Turnips ware also examined, but were regarded as of no special merit

## CHARLWOOD AND DISTRICT Horticultural

Augus 7.-Charlwood in a village lying near to Crawley, on the vergy of the boundary of Sarrey and Sussex, and near to the frait nurseries of Mesmr. Cheal \& Sonn. For several years past a mall cottagers' show has been held, this year it took the form of a district show, extending its operations over a wider range, and prize were offered for the firt time for gentlemen's gardeners' competition. So good was the exhibition that it promises well for the future, and with Mr. Joseph Cheal as general director, there is a aseful futare opraing betore the Society. A large number of counary people came to see it, despite the threatening weather.
Tables of plante, occupying a space of 12 feet superficiala faature obviously copied from the Brighton shows-were an excellent feature. Mr. Thos. Spapkes, gro to A. A. Dorotr, Esq.. taking the 18t prize; the and going to Mr. Daney, gr. to means of education for young gardeners. Some useful table planto were shown. Mr. Davis, gr. to J. Covelle Esqu, talking the 1st prize, though all shown were rather too large; he also had the leading prize for six quarter-spocimen Ferns, well-grown, and very healthy. One often sees in country districts something of exceptional quality, and it was the case in the class for aix Coleus in which spacial prizes were offered by the grown and coloured bushes of distinct varieties, that were a great deal better than anything we saw at Leicester on the previous day ; some rather larger plants, also well grown, cook the 2 nd prize, but the exbibitor's name did not transpire. Mr. N. Tanner, ge. to Mrs. Brougetur Stirling. Lovall Heath Lodge, had six very good double fiswered Begoniser which took the lit prize. Plants were also shown by amateuri. Cut flowers formed a stronk point. With twelve varieties, Mr. K. Brown, gr. to M. W. Morris, Esq a young gardenef who promises well as an exhibitor, had African Marigidds, Chrysanthemums, Coreopsis coroasta, Picotees, Bugonias, \&c.. all in good character; Mr. Davis was placed 2ad.
The special prizes offered by C. G. Sloane, Ext , for twelre bunches of Cactus and decorative Dahlias bevught a good competition, and MP. E. Brows, who has already made hit mast at the Orystal Pdace Dablia show, was placsd lot with escol lent blooms of Delicata, Gloriosa, Mrs. Peart, Lady Penzace: R. Cannell, Mistchless, Borth 3 Mswley, Juarezii, \&ef, ; Mr. 6 Dasce came ind, haviag rather more of the decorativa varieties. With sis buaches Me. Brown was agaia 18t, haviak in good charactar Mrs. Douglas, Matchles3, R. Cannell, Lsd Penzanco, Delicata, and Besuty of Wilts; Mp. Dancy wim 2nd, his best bunches being R. Cannell, Bertha Mawley, Min Peart, and Keynerith.
Asters were ssoce what sparingly rapresentsd, the westbet having told upon the blooms.
Fruit was invitod by apecial prizes from Mra. Bhot gitor Stirking: for sir dishes, Mr. Davis taking the 1st prize with Blact Grapes, Peaches, Pluns, Melons, \&c. Mr. DAv hat the bast two buaches of Black Gripes; Mr. Sparis 2ad. Me, Daxcy had a very fine lot of twalve Tountoen Davis was p'aced 2nd.
That vegetables are well gro wa bereaboate was conclusivil ehown in the high quality of not a few which were stagein Mr. Browir took the lst in Measro. CeEeal \& Sor's sped he prizes for six dishes of vegetables of their own stock, and and had very fine Cauliflowers, Carrots, Potat
Scarlet Runners ; Mr. Sp4Rks was 2nd.
carlet Runners: Mr. Spaliks was 2ad.
G. O. M. Herrox, Req. also offored special pries Mor dishos, sho wa by amateues. Mr. PETERS was 1st, and Mo Greenfield 2nd.
In the amateurs division, Mr. W. Greevfieco walst with a plate of Potatos, and also with aix varieties of fruit.

In the way of miscellaneous exhibits, Messrs. J. Cheal \& Sos pat up a large collection of hardy cut flowers, pretty Violas in bunches, Cactuz, Pompon and single Dahlias, Gladioli, \&:, with Begonias in pots, Palma and Ferns at the Gladioli, $\mathbb{\prime}$,', with Begonias in pots, Palma and Ferns at the
back, a very fine feature. Mr. F. Frank Hudson, Gunback, a very fine feature. Mr. F. FRaNk HuDSOX, Gun-
nersbury House, set up three charming Epergues, arranged nersbury House, set up three charming Epergues, arranged
with fine good taste, some of the new hardy water Lilies with fine good taste, some of the new hardy water Lilias
from America being specially attractive; and Mr. Spinks, florist, Horley, had a collection of cut blooms of various types of cut Dahlias, all of which were highly commended.

## STOEE POGES FLOWER SHOW

Adgust 7.-This show was beld in the grounde of H. Howard-Vjse, Esq. Stoke Piace, near Slough, on the above date. Tae horticultaral society of this place was started in quite a mall way, but it has now attained considerable importance. On thin occaion the groups of plants arranged for effect were very good, and with a few other exhibits, filled a large tent.
The groups were of semi circular form, to cover 10 feet square, and tre 1st p:ize was well won by Mr. Page, gr. to H. Howard-V yse, Esi. ; he had a centre Palm, a Kentia, with beatifully-coloured Crotons and Eulalias, Francoa ramosa, Oncidiuna flexuosum, and Lilies, with a groundwork of Adiantum and Caladium argerites. Mr. E. Johnson, gro to A. Gililit, Esq., was a gooi 2nd; and he had some very fine White Campanulas, in his group, good Glorinias and Lilies, and Francos ramosa, with a ground worl of Midenhair, edged with Panicum variegatum. 3rd, Mr. Capp, gro to Sir C. Piggott, Wexham Park, whose plants were good, but the arrangement rather heavy.
For six kinds of fruit, Mr. Jounsor was 1st; and in the For six kinds of fruit, Mr. Jounsor was 1st; and in the
vegetable classes this exhibitor held the same position both for vegetable classes this exht and six kinds. with splendid produce.
Mr. Kemp, gr. to W. Bryant, Raq., Stoke Park, arranged a fine group of plants, not for competition, his Pancratiums being especially fine; and Mr. TURNER, Slough, had a good display of cat Roses and herbaceous flowers.

## SEVENOAK8 HORTICULTURAL.

August 7. - The twenty-eighth show of this society was held in favourable weather on the above date in Knole Park, and was of the usaal character, nothing apparently being of especial merit or out of the ordinary ran.
There were plant-groups in which Mr. Gibson, gardener at Halstead Place, was the winner of the 1st prize; a specimenplant class with Mr. Sutton, gardoner at Chevening Park, as the best man; Mr. Hastron took the lead in a miscellaneous collection of plants, and one of Ferns.
Roses, Asters, cut flowers of the stove, greenhouse, and open border were shown. Mr. Snow was the lucky exhibitor of the best six dishes of fuut in as many kinds; and Mr. Tayleen, of Forest Hill, S.E., had the finest Black Grapes; and Mr. Osman, Chertsey, the best white ones.
Vegetables, table decorations, \&c., and special prizes, including Messrs. H. Cannell \& Sows" "Star of Honour" for the cluding Messrs. H. CANNELL SoNs' "Star of Honour" for the
beat twelve distinct dishes of Vegetables, and a box of cut beat twelve distinct dishes of Vegetables, and a flowers, was won by Mr. R. EDWA
complete the more important exhitits.

## WILTS HORTICULTURAL.

Adaust 14 - With fine weather, and in the place for holding the show, the Wilta Horticaltaral Society's annual exhibition was enpecially favoured this year. The site of the show was located in the ground of the Bishop's Palace at Salisbary ; and the Committee and the Hon. Secretary, Mr. C. G. Wyatt, are to be congratalated upon the well-merited maccen attending the thow.
As usual, Mr. OyPEER secured the higher awards, including that for twelve atove and greenhouse plants. His very fine plants consisted of Stephanotis floribunda, Ixora Williamsii, Erica Austiniana, Clerodendron Thomsonianum var. Balfourii, Statice profusa, Phueuocoma prolifera Barnesii, two grandlyflowered plants; Codireums Sunset and angustifolium, beautifully coloured: Kentias Fosteriana and australie, Cycas circinalis, and Latania borbonica. Mr. Thomas Wilkins, gr. to Lady Tezodora Gurst, Inwood House, Henstridge, and Mr. Wilis, Shirley, securing 2nd and 3rd prizes respectively.
The 1st and 2nd prizes for nine stove and greenhouse plants, five to be foliage and four in bloom, went to Mr. W. Peel, gro. to Miss Todd, Shirley, and Mr. Wilhs; Codiwum Queen Victoria and C. Johannis, Kentia Fosteriana, and Izora Williamsii bsing the more noteworthy exhibits.
The competition between Mr. WILKINs and Mr. Hall, gr. to Loursa Lady ashburtur, Melchet Court, Romsey, in the class for six distinct exotic Feras, was severe, the prives, after a considerable amount of time had been spent conबidering the plants and the awards to be made, were at last given in the order in which wa place the names. Divallia fijiensis plumosa, D. Mooreana, and Adiantuma cuseatum were the beat in Mr. Winkins' lot.
Six Tubsrous-rooted Begonias, shown by Mr. A. Bobey, gr. to Captain H. Greevwood. Haraham Clift, Salisbury, wert a long way in adrasce of those ataged in that class, this being the sixth year in suecesmion that Mr. Robey's Begonias have
taken 1st prize at the Wilts Horticultural Society's Show These plants consisted of well-grown and finely-flowered double and single-flowered varieties, the foliage being ample, and the flowers large and fine in every respect. Mr. BEDFORD Harnham Nurseries, Salisbury, came into the 2nd place with Harnham Nurseries, Salisbury, came into the 2nd place wit
fairly gooi plants. The last-mentioned ezhibitor was far in fairly gooi plants. The last-mentioner exhibitor was far in
advance of other competitors in the class for six Fuchsias, advance of other competitors in the class for six Fuchsias,
staging sized pyramidally-trained plants, fresh-looking, in staging sized pyramidally-trained plan
regard to the foliage, and well-flowered.
Groups of miscellaneous plants, arranged fse effect, form an important feature in most shows of any standing. The groups arranged this year at Salisbury fairly eclipsed all previous endeavours in this direction; they were light, and quite devoid of formality in most cases. Of the groups arranged in the open and gentlemen's gardeners' classes central plants consisted of Palms, backed up with maller ones-Codirams, Dracenns, Tuberoser, Bridal Wreath, Francoa ramosa, Caladium argyrites, Cattleyas, Oncidium incurvum, ec., being advantageously employed in most of the winning groups, on a groundwork of Maidenhair Fern, the whole being. as a rule, edged with Panicum variegatum, and small piants of Maidenhair Ferns; plants of irregular heights arranged with telling effect by Mr. Wills: Mr. Carr, gro to W. A. GIllett, Esq., Bishopstoke; and Mr. A. Rober, in the open class, and by Mr. Cabr, Mr. Peelo and Mr. Rober, in the gentlemen's gardeners' class, and (wh) took the prizes


Fig. 45.-Low's ground COMPASSES. (SEE P. 218.)
in the order in which their names appear in both of the classes. Mr. Bedrond had also creditable groups, which in both classes covered a semicircle of 14 feet radius. A nice flowering plant of Dendrobium formosum giganteuu ahowed off to advantage in Mr. Robey's group.
In the priacipal clase confined to amateurs, Mr. Pearce. High Street, Salinbury, won the Fiveguinea Cup given by the Mayo: of Salisbury, in a fiirly g od competition; the plants arranged in a semicircle of 10 feet radius, had been carefully selected and judiciously arranged. Mr. Scammell, gr. to G. R. Kendal, Eaq, Witton, tool let place in a smaller group class.

## Fbuts.

On the whole, fruit made a good show. Mr. H. W. WABD Longford Castle, Salisbury, secured the let place for a colleo tion of eight kinds, with goal full bunches of Mradresfield Court and Mascat of Alesandris Crapes, good in berry, and of exoellent colour; Hero of Lockingo Melon, Prince of Wales Peach, fine in size and colour; Brunswick Figa, Apricots. Ceapp, Farourto Peap and medium lized Pitmaston Orange Clapp's Favounto Peap, and medium-bized Pitmaston
Nectarine. Mr. Inglefield, gr. to Sir Joikw Kexa, Barto, Tedworth, Marlborounh, 2nd, had very fine Late Admirable Peaches. worth, Mariborough, 2ad, had very fine Lize Adminabie of Black Pine-apple Nectarives, and medium-sized bunches of Black Pine apples were not extensively shown, Messpr. W 1 RD and Hall taking 1st and and prizes in the order of their names. the former showiag a good-sinad fruit of 8mooth-lesved Cayenne, and the lacter s medium-sized fruit of the Queen. Grapes, especially Black Hamburghs, were well represented. Three large solid bunches of Muscat of alexaddria from Longford, fine in berry and colour, easily secured the 1st place. Black Hamburgh Grapes that were grod in buncts, berry, nd finieh, gained lst poaitiou for Mro J. Chall. gr. to G.

READ, Esq., Weatwood, Ealisbury, and he was elowely followed by Mr. Mitchell, Chilwell Manor, Romsey, who had budchen slightly smaller, but more compact, otherwise fin in all M.dre

Mudresfield Court Grapes were excellently shown by Mr. Smith, gro. The Palace, Salisbury; by Mr. Ward, and Mr, Warden, gr. to Sir F. H. Batilt Rist, Bart., Clarendon Park, Salisbuy. Three bunches of Mrs. Pearson, of fine size and
handsome outline, but requiring a month or air weeks to make perfect, secured the lot place for Mr. Gardener, kr. to Col. H. S. Bates, Twford, Winchester, in the chass for any other white Grape than Buckland $\$$ weetwater and Foster's Seedling.
Plums made a good class. A dozen fine fruits of Guthrie's Late Gage, perfectly ripe, ahowa by Mr. W $\angle R D$, took lst prize, while grand fruits of Late Admirable Peach gained a like distinction for Mr. Inglefiekd ; and a dísh of Elruge Neotarines, staged by Mr. Solmar, Pyt House, Lisbury, gained a similar a ward.
Apples were well represented. W. Falford, gr. to Karl Nelsoy, Trafalgar Park, Salisbury, who was lut for thre
dishes of dessert varieties, atagiog grandly coloured fruits of Beauty of Bath. Early Harvest, and Red ABtrachan; while fine fruits of The Queen, Toddington Seedling, and Lord Suffield gained chief honours for Mr. Smity.
Collections of Vegetables, consisting of twelvo linds, made a good show. Mr. Wilkins was list for an admirable collec tion. Mr. R. West, Northlands, Salisbury, was the most successful exhibitor in the cut flower classe8, which for the most part were well filled with generally first-rate exhibits. Non-competitive Exh:bits were contributed by Memrs, Keynes \& Co., who arranged a grand lot of Dahlias, \&ce. Mr. LADEAMs, Shirley, had a collection of herbaceous Howers Mr. Bedford had miccellaueous plants.

## BISHOP'S STORTFORD HORTICOL TURAT

August 14.-The annual exhibition of this Society was held in the grounde of the Grange, Binhop's Siortford, by permiseion of J. Barker, Enq. The schedule is a very comprehensive one, the classe were well filled, and the gronpa of planta here, an elsewhere, formed an interesting feature. Altogether it was an excellent show.
There were five groups, and tha best was from the gardens of Sir Jas. Blytir, Batt., Wood HJuse, Stansted ( $\mathrm{g} \%$, Mr.
J. Richardson); cJntpicuout as a back ground to the group of Adiantums. Group; of siagle and doable-flowered Begonias are always a nice festura at this show, and one tent was set apart for them.
C. Gold, Eaq. Jan. (gro, Mr. D. Patmura), was lat ; and W. Smite, Esq. (gr., Mr. R. W. Kent), 2nd. Other classes were aet apart for Bagoaias in bloom, Mr. D. Patarobe winning mostiof the prizes. Of the four groups of six foliage plants, the best one cams from sir JıMres BLyTE's gurden. The the best one came from sir of six Ferns were from the gardeas of Colozel $\mathbf{G}$. $\mathbb{B}$. ARCEE \& Houblow, J.P. (groo Mr. B. Calvert). The beat ARCHES Houblozizos, fine in size of bloom wape from W. Holland, Esq.o Plantation House (gro, Mr. W. A. Duanage).
The best siogle and doable zoasl Pelargoniums were from U. TAYLor, Esq., and were handsone, well-grown specionens. Mr. D. Pataoge exhibite well.grown Fachsias. The groups of autuma-floweriog Chrysanthemums deserved a specia! notice. Tae wioning collestion consisted of fice dwarf plants, with large and handsocae flowers. Mr. B. Calvert was 2nd, with a ve:y commendab.e lot. Ia the Rev. J. Menet's collection (ge., Mr. T. Lodge), the varieties were Madama Desgranges and its yellow and primeose sport.
Table decorations were of the usual standard of excellence. No fewer than twents-six tables were set out in competition for one set of prizes. Miss Jessie Canying wou the lst prize with an arraugement of Poppies, a few spikes of Gladiolus The Bride, with fmall flowers of a siagle variety of Helianthue; 2 ;d, Miss Bailey, with an arrangement consisting entirely of monthly Roses; 3rd, Mrs. Rourlisder with a table of $S$ weet Peas.

Fruit, etc.
The bast black Grapes ware from the garden of Colonel Arceer Houblow: and the bess white from those of Sir James Blyte, Bart. Colonel Arcier Houbloy's gr. had also the best collection of fruit; and Sir James Blyte's gr. the hest Pesches. Tue best Nectarines were from sir Javes Blytidy garden. Apples, Pears, Plums, Cherries, and small fruits were generally fine fruits in overy point. though some wase not ripe.
Quantities of cut flowers were exhibited, eepscially fine beiog Phox Drummondii, from E. H. Warrs, Euq.'s estrden; sionle and double Zunal Pelargoniam traswes were very creditible, the beat were from C. GoLd. Exq., who also had aplendid French Marigolds, but even these were surpassed by wonderful Africsa Marigolde. Phlozes, Asters, Hollyhocks, Violas, Roses, and other flowers were very attractive.
Collections of vegetables.-Salads, Tomator, \&c., were very fine, showing that the gardens at Bishop's Stortford are not one whit behind their brethrea in the county of Kent.
The cottagers' produce filled a good-sized tent, and was well worth clons inspection, Potatos, Carrots, Peas, Beans, \& \& ., were abuodantly and well exhibited,
Mesars. Vertce of Chelsen exhibited a group of choice plants, in which $\mathrm{D} \pm \mathrm{ad}$ robium Dearei, and the distinct-colarred D. giomeratun were conspicuous; Mr. Rumgey of Waltham Crose had fiae Roses; and Messts. Paul \& Sox of the Old Narseries, choice herbacs, us placts.

## WESTON-SUPER-MARE.

Avgest 15.-The Waton-anper-Mare and Ext Somerset Horticultaral Society held its eighteeath annual thow of plants, fraits, flowers, and vegetables, in the Grove Park and Glebe Field, on the abovementioned date. The exhibition was, on the whote, a good representative one, and redounded to the credit of the Honorary Secretaries, Measra. Thomas \& Webb, and the inhabitants of this pretty sea-side resort.

## Plants.

In this section Mr. J. CTpres's plants formed the chief attrection, and secured for the vetoran cultivator six lat prizes in the reapective clastes for twelve stove and greenhouse
plants, in as many varieties, six flowering plants, and six plants, in as many varieties, six flowering plants, and bix toliage plants, distinct varieties to be shown in each case.
Specimen foliage (etove), and specimen flowering (greenhouse). Specimen foliage (otove), and specimen flowering (greenhouse). and for the best spe imenergrown and finely-coloured plant of Codiseam Roidit. The more or less prominent plants in Mr. Cxpier's exhibits were Kentias Fosteriana and Belmoreana; Intanta bosbonica, Codiseums Queen Victoria and San. ret; Stephanotis floribanda, Bougainvillsa Sanderi, and Izora Pilgrimii (iacluded in the twelve stove and greenhouse exhibit), Erica oblsta purpurea, E. Marnockiana, Rondeletia speciosa, and Clerodendron Thompoonianum var. Balfouri, being the most conspicuous among his six flowering plants; while the most prominent in the half-dozen foliage plants were repressonted by good apecimens of Codiseum Johannis, of fine size and good colour; C. Baron Rothschild. Cycas revoluta, and Latania borboaica. Next to Mr. Crpier came Mr. W. Rewland, gr. to W. Brock. Esq. Parker's Well Hou'e, Exet-r. a succeseful exhibitor in the plant classes, who beat Mr. Cxphes in the class for a sp
plant, whe Stephanotis floribunda.
FRUTT formel an important far'ure in the show, the twenty classes devoted to it ceiog pretty well contested, and the exhibite genemlly were of great merit. Mr. H. W. Ward, gr. to the Eirl of Radnor, Longford Castle, Salisbury, being the most successful exhibitor, he taking six lata (for collection of most uuccessful exhibitor, he kinds, viz., Pineapple. Madresfield Court Grapee, eight kinde, viz., a Pineapple, Madresfield Court Grapeo,
Peaches. Figs, and Pears, Clapp's Favourite), and two 2ads, with excelleat all-round produce. Mr. Lloyd, Langport, and Mr. Crossman. Yeovil, were also succesaful competitors, and bith showed well. The awards wore not quite so satisfactory in the clasees for Black Hemburgh and Muscat o Alewandria Grapes as they were in other eighteen clasees.
Tue cut flowern and vegetables wore fairly woll pepresented, but the individand exbibits call for no apecial notice here, lurther toan to sey, that Mr. GABAWAY, Bath, took two 1sts, including one for a collection of eight hinds, and Mr. CrossMaN, four lats for vegetables. The Onions of the latter were
the finewt in the show, but they were, unfortunately, over the finemt in the sho
looked by the judgee.

## MAIDENHEAD.

Adgust 15.-The snnual exhibition, held on the above date, was in every sense an unqualified anccess. Although in a manner it is a local show, s much larger area is embraced than obtaing in most inatances. The competition throughout wae very keen. no fewer than twelvo competitcrs entering for the Merirs. Sutrusis prizes for collections of vegetables, and nine or ten for the large collection of frait, other clases ${ }^{\text {b }}$ being particularly well filled under these heads ; whilst for groups, there were ten entries in the two clases, and five for Taberous Begonias. This apeaks well for the enthusiasm displayed in horticaltare around Maidenhead, the Society being evidently a popular one with exhibitors. The execative deterve every anpport for the sdmirable manner in which the varied details are earried out.

## Flaxts, *c.

In the lerge group clas the competition was exceedingly keen between Mr. Aitken, gr, to Col. Mrexrme, and
Mr. Phillipe, wr. to H. Gown, Foq.. realting in an equal Mr. Phillipe, wr. to H. Gown, Feq-. revulting in an equal cahibita are rarely ever men, this boing largely mosounted for by the fact that the last-named gardener wan for some time ramose, Lulium lancifolium vars, and Campanula pramidal albu were to be seen in each, whilst in the firstwanad there were Pancratiums in addition, and fa the latter Celsia cretica. bth being emplayed to good offect; Well-coloured Crotons were very telling in each eases. Mr. Wood. gr. to Lord Bostox, Hedsor, followed in this clas with a bright group.
In the smaller group-class the competition was also leen,
Mr. Ereswell, gr. to A. Gold, Esq, being placed lat with a light and well-balanced exhibit; Mr. Riehardson, gr. to G. Heramige. Esq, who followed, had also a good group, very nesk to the first, the colours being well blended.
For twelve fine folisge planta in 8 -inch pots (a mont sensible and useful elasg) the competition was again Keen, Mr. AITKBM variety, Acalypha Macafeemeny plants in grod colour and Johennis, Ficus elnatica eemnos told well. as did Codiæum Mr. Gillies, fr, to Sir B wariegata, sed Diefionbachia Bausei. Mr. Gilfes, EF. to Sir B. G. Harvex, whe a mear 2nd, his best being Codireum Prince of Wales, very bright, Dreceens BiapCiati, and Cocon Wedelliams.
For six stove and greenhouse plonts.-M- AITEEX wat
eas Iy lst, his best being Allamanda Hendersoni, Clerodendron Balfouriaoum, and Codieum Queen Victorid. The last-named Was also lst for a specimea-plant in flower, with a beautiful men with Codirum Queen Victorid, an immense bush. Mr J. Smita. Clewer Nurseries, being a good 2nd in the former instance with Stephanotis floribunda, very fresh; and Mr. GILures in the lattor, with an enormous example of Alocasia gigantea.
gigantea.
Mr. Goodman, gro to Misa Hummersfey, was 1st with large, healthy, and well-flowered tuburous Begonias; and Mr. ricelardson 2nd, with plants nearly as gojd. Another good exhibit in this class of the choicest kinds, with large blooms, but the plants much
F. D. Lambert, Eeq. exhbit of gix Fuchaias, and was awarded the 1st prize, Mrs. Rundle and Charming being two of the beat.
From Mr. PHILLIPS came a grand half-dozen zonal Pelargoulums, the plauts quite a connterpart of each other iu bize s ze. The varieties were White Perfection, double; Mrs. Gordon, deep acarlet with white eye; Neila, deep pink; Hermia, deep cerise; Lady Chesterfield, bright salmon; and Uivia, dark cerise. The plants measured fully $4 \frac{1}{2}$ feet through. The best set of table plants were from Mr. AICKEN, dwarf, and in good character ; Mr. J. W. Richardson following.
Cockscombs, froca Mr. Hopkins, were very fresh and fully developed. The Gloxinias showa hy Mr. J. Fulford were well-flowered and fresh, the plants of med.um size. A class was provided for Streptecarpus, the first occasion oo which we have noted this introsuction; one collection only, and these but of medium merit, was sent oy Mr. C. Young.
The class for another favourite one, and some exceedingly bright and well-grown plants were staged, these being chiefly
tall pyramids, the best came from Mr. T. GRESWELL, who had tall pyramids, the best came from Mr. T. Greswell, wha had capital varieties.
Cus Fiowers. - This section is dividel into two distinct diviions, one for the trade only, and the other for private growers. In the former of these the best box of Roses, bright and fresh,
wat sent by Mr. F. J. Fletcerer, Lowbrook, Bray ; Mr. J. Wa, seat by Mr. F. J. Fletceer, Low
WHLEE, Thame, following a good 2nd.
With Dahlias, Mr. WALKER was lst, showing blooms quite up to exhibition standard, fresh and bright; in this instance Mr.J.R. Tranter was 2nd, he, too, showing well.
Zinnias are always showe well at this exhibition. Mr. Walker again winning, with Mr. Tranter 2ad; the positions being reversed for Anters, which were extra good

In the latter or amateur's division, the leset box of Roses came from Mise B. Destor, Winkfield; two other good stands being present from Mr. Paxtor and Mr. Fulford. Dahlias were scarcely enough advanced. Mr. MUNT, of Slough, had the best twelve show hinds, and Mr. H. Diddame, gr. to J. C. Wootron, Euq., the best dozen Cactus varieties. The Asters on the other hand in this division were remarkably good, several stands being put up. Mr. C. YOUNG was lst and Mr.
J. Hanch, gr. to J. B. Weatrer, Esq., 2nd. Zinnias were J. Hanch, gr. to J. B. Wrather, Esq., 2nd. Zinnias were
specially fine here, better than in the trade class, the two best stands being very close in point of merit. Mr. C. Mums, Windsor, wae 1st; and Mr.C. Yourg, 2nd.

## Eruit.

There was an abundant competition in this division, and the standard of excellence ruled very high, Mr. AIIKar was lst for six dishes, showing first rate Muscat Grapes, fine Royal George Peaches, Counteme Melon, and Lord Napier Nectarines. Mr. GOodmax came a close 2ad, but was weaker in Grapes, having, however, very fine Souvenir du Conglès Peare, Brown Turkey Figs, and Dagraar Peaches. Mr. Mowbray, gr. to Hon. H. C. LeGGE, also staged well for the 3rd prize.
For four dishes, there was also an abundant competition, Mr. D. Paxton being lat, Peaches, Nectarinea, and a good Melon being the best divhes. Mr. Y. Cole, gr, to Bir G. RUsselin, was well up for 2nd place.

With four dishes grown in the open air, Mr. D. Pixtor again won, showing fruit well ripened and of high colour, Brown Turkey Figs, Jefferson Plums, Strawberry Pippin Apple, and Moor Park Apricot being his choice. Mr. GoodMast, who followed closely again, had very fine Old Windeor Pears, and Red Astrachan Apples.
Black Hamburgh Grapes were a atrong clase, Mr. F. Core winning with large, well-coloured bunches, carrying a dense bloom: Mr. G. Hopkurs was 2ad, with smaller, but wellfiniehed bunchen.

Mr. F. Cons wou again with any other black, Alicante being his choce, the bunches again of extra size, with a dense blcom (Madresfield Court at this season is a decidedly better Grape in such a olaes) ; Mr. Oeman, ge. to S. J. B^ker, Eeq., was 2nd, he also showing a late Grape.
With Muscat of Alexandria, Mr. Mowseny won handsomely with very fine large tapering bunches, well ripened; Mr. F. COLE in this instance having to be content with ind place.
For any other white, Mr. Mowbray was again to the front with Foster's Seedling; the same kind from Mr, Goodman being 2nd. An exhibit of Mr. Pearsox in this clas was staged too late, otherwise it would have been a formidable one With six Peaches, Mr. Johnston, gr, to A. Griliat, Esq., Was lot. the variety being Bellegnrde, highly coloured; Mr. ATMEN taking 2nd with Royal George.
The best Nectannes were Hambolnt, shown by Mr. $\mathbf{H}_{\text {. }}$ CAWTR, KP, Ot Okley Court, handsome fruit; and the 2nd
best, Lord Napier, from Mr. Arkre best, Lord Napier, from Mr. AITLeM.
A strong competition in the class for one Melon, resulted in Mr. Goodmax being placed lat with Pine-apple; Mr. Jas, Woon was 2 nd , having Beauty of Sion.
The fine at Plums were a dish of Jeffernon, from Mr. Good.
man; whilst one of Kirke's. by Mr. Hopkins, was 2nd; both of these exhibits combined good appearance with quality. Dessert Apples were showu best by Mr. Goodmano who hat Red Astrachan, fully ripened; Mr. JoHNSM, was 2ad, with Culinary Apples were well advanced, the best being Pea good's Nonsuch, from Mr. Davis, gr. to H. ADAMs, E:q.; Iord Suffield, very good, was placed next in point of merit, from Mr. E. Johnstone.
Cherries (Morellos) were well shown, the 1ut prize going to
Mr. OSMAM ; and the 2nd to Mr. CAWTE.

## Vegetables.

Amongst several exhibits of Cucumbers, the best brace wn found in Royal Windsor from Mr. J. Wood; and the beat Onions in Ailsa Craig, from Mr. Goodman, whilst Perfection, as an exhibition variet
having the finest dish.
It was, howe dish.
Cotables where the the special class for a collection of vegotables where the greatest feature in this division was to
be seen, the prizes being offere 1 by Messrs. Sution \& Bors, Mr. G. Goodman won the list place in an highly creditable manner with good produce, staged effoctively, his casica being Autumn Mammoth Cauliflowers, large, but firm; Pe:fection Tomatos, good; new larga Intermediate Carrots, very clean ; Satisfaction Potatos, excellent samples; Lemon Roces Onions, large; and Autocrat Peas, a fine sample. Mr. G. Line, gr. to Miss Ridge, was very close for 2ad place, with similarly good ctoice ; and Mr. G. Worsfold, an excellent ${ }^{3}{ }^{2}$.
For the special prizes for six distinct kinds offered by Messrs. Webs \& Soxs in the next class, Mr. G. Storkit, Onions being his two best dishes; the bad staging of this exhibit detracted in a measure from its good appearance. Mr. D. Paxton was 2nd in this class with good dishes.
Messrs. J. Carter \& Sons also offered special prizes for sis dishes; here Mr. C. Young. gr. to Rev. J. Coney, was lat in another close competition (a few marks only separating the
1st and 2nd exhibits); his best dishes were Perfection lst and 2nd exhibits); his best dishes were Perfection
Tomatos, Ailaa Craig Onions, extra fiae; Autumn Mamaoth Cauliflower, Autocrat Peas, and Satisfaction Potat)s ; Mr. R. Cawte, who came 2nd, had a very even exhibit.
In other special vegetable classes, wherein the prizes were offered respectively by Mr. Broughron and Mr. W. H. Timp the two best lots were shown by Mr. R. HERBERT and Mr. J. Knight.
In a special class for tuberons Begonias, wherein the award was a Medal offered by Mr. R. Owen, the best exhibit cum from Mr. J. W. Richardsor, the plants dwarf and stocky.
Table Decorations, \&c. -The best set of decorations wa pat up by Mry. Herring Dropmore Gardens, very light and artistic; the 2nd best by Mrs. Becketr, in which harily enough material had been employed.
Mrs. BhougTon was 1st with a bonquet, the arrangement ercellent. The beat aingle epergne was that arranged by Mrs. Thompson
Miscellaneous exhibits came from Messrs. J. Laing \& \$ons, Begonias and plants; Mr. Fletcher, fruit and flowers; Mr. Such, cut flowers ; Mr. Fhippen, wreaths, \&c., very tasieful arrangements; Mr. Brovertow, plants and flowers; and Mr. Chas. Turner, Dahlias and Roses, a First-class Cenifo cate being awarded to Cactus Dahlia Beatrice, of very distinet colour, a deep pink. J. $H$.

## TROWBRIDGE HORTICULTURAL AND

 FLORAL.August 21.-This was the forty-nixth annus exhibition of what is probably the oldeet hortical. tural society in the west of England-one which for nearly hall a century has held an annual extibition at Trowbridge. It was, as unal, held in the townit field adjoining the railway atation. Owing to the season, the show displayed a little falling-off in a few respects ; the Fachaias were neither so numervou nor fine ae posaible, but any deficit in this respeci was compensated for in the clastes for stove and greenhones plants, which were very fine; the Begonias also, the collections of Ferns,
frait and vegetables were very good iadeed.

Plants, \&C.
In the open-to-all division, the best nise store and areere house plants in flower came from Mr. H. Matthew, ${ }^{\text {fo }}$ Sir W. R. Brown, Bart., Trowbridge, who had very examples of Ixopa coccinea and Pilgrimii, Allamandas alegan dersoni and nobilis, Ericas Austinasna, Ewerians, and retorta major: Dipladenia amabilis, and kod W. P. apeciooa major. 2nd, Mr. G. Tucluer, gr. to Major ditcos Chark, Trowbridge, whose best plants were Allszandarial Stephanotia floribunds, and Erica Turnbulli.

In the amateurs' clase for sir specimens, Mr. H. Martirwim was again lot, having very good examples of Diplodenis Brearleyana and amoena, Stephanotia floribunda, and, yrt Go nobilis, Ixora amabiliz, and Erica Turnbulli; 2nd ally Tuceer, his leading plants being B
manda nobilis, and Statice profusa.

With three plants, Mr. Tucker came 1st, having Lappassitis rosea, a the piece of Eucharis amnzonica, and Ronder Bon speciosa major; Mr. Pocock,
Trowbridge, was 2nd.
We have said there was a falling off in Fuchinan with some have said there was a falling off in rucrulind bin
bect six specimens; they were dark varietiee, Doge's Favouite, very fine-a grand old variety. Final, and Charming light, Arabella, Marginata, and Harriet Lye. Mr. H Pocock was 2nd
With four plants, Mr. Tucker was again lst, having Final,
Bountiful, and Charming, durz; and Arabella, light. Mr. 4. Pocock was again 2nd.

The best apocimen plant was a finely-grown and bloomed Allamanda Hendersoni, from Mr. \&. Bishop, gr. to F. APpleatE, Efq., Bradford-on-Avon; Mr. H. MstTREWS coming and, with a piece of Vanda coerulea, having eight or so fine flowers.
The best six Achimenes, nicely grown and bloomed, came from Mr. G. Pgmmo gro, to Mrso Gouldsmith, Trowbridge: Mr. Tuoker was 2nd. With six Gloziniae, Mr. Tucker was
det and Mr, O. Richman, gr. to G. L. Palmer, Ebq., Trowret ; and Mr. O. Richman, gr. to G. L. Palmer, keq., Trow-
bridge, 3 nd . Begonias made a fine feature, with six plants of bridge, $3 \mathrm{nd}$. . Begonias made a fine feature, with sir plants of
singlo, Mf. G. TUCKER was IBt; and MF. G. PYMM, 2nd. With six doubleflo wered varieties, Mr. C. Richman was placed 1st, having really £uperb specimens, finely grown and bloomed.
The best group of plants to fill a space of 50 superficial feet came from Mr. G. PyMM, arranged'with remarkably'good taste; Crotons, Liliee, Orchids, and other flowering plants made up charming arrangement, with a mixture of foliaged subjects; Mr. A. Strugnell,
Ashton, was 2nd.
some excellent specimens of zonsl Pelargoniums werestaged some excellent specimens of zonal Pelargoniums werestaged by Mr . $\boldsymbol{Q}$. TUCRER, and others; they
remarkably well shown by cottagers.
remarkably well shown by cottagers.
Mr. G. PYMM had the best four Orchids; the genus Pha? opsis was well represented.
The best new plant was Cypripe lium Cbamberlainianum, from Mr. H. Matthews; Mr. C. Richans being 2nd with C. Charlesworthii; a nice plant of Browallia speciosa major was also shown.
Of foliaged plants, the best mine came from Mr. H. MaTTHEWs, who had very good specimens of Crotons Weismanni, Reidii, and Baron James de Rothschild, Pandanus Veitohii, Asparagus plumosus, Dracsena Cowperi, and others; Mr. G. PrMM came 2nd, his leading plants being Oroton mirabilis, Acalypha tricolor, and Cissus discolor.
The best fifteen epecimens of Ferns and mones came from Me, Geo. Tucker, who bad excellent examples of Gymnogramma sulphurea and G. peruviana argyrophylla, Adiantums concinnum, peruvianum and gracillimum, Dicksoaia miarctica, Gloichenis rupestris. Davallia Mooreana, and Selagivella Wildenovi, 2nd, Mr. H. Pocock, whose best specimens were Alsophila excelsa, Ggmnogramma chrysophylla, Ad
Coleus are always well grownat Trowbridge, the best six came from Mr. H. Matthews, who had in very fine character, Mra. C. Hart, Lady Dacre, Beckwith's Gem, and Mrs. Sheriff. 2dd, Mr. Jas. Hiscox, Ere $^{2}$ to E. B. Rodway, Rsq., Trowbridge.
Out Flowers were, as usual, a strong point, Roses taking the lead. With twelve trebles Mr. J. Mattock, narseryman, Oxford, was lst, having excellent blooms of Ernest Metz, Souvenir d'Elise Vardon, Mrs. J. Laing, Hon. Eaith Gifford, Catherine Mermet, The Bride, and Charle Lefebvre, with others. 2nd, Messri. Geo. Cooling \& Sons, nurserymen, Bath, also with good blooms.
With twenty-four varietiea, Messrs. J. TOWNSEND \& Ions, nurserymen, Worcester, were lst, having capital examples of Urich Brunner, Fisher Holmes, Devonienais, Mrs. J. Laing, Madame de Watterille, François Krager, Lady Sheffield, and Duke of Edinburgh: Dr. Budd, Bath, was 2nd.
With twelve trebles in the Amateur division Dr. Budd was 1st ; and Mr. A. H. Gray, Bath, 2nd. With twelve blooms the positions were reversed, Mr. Gray was 1st, and Dr. Budd and. Mr. H. MATTHEWs had the best twenty-four bunches of cut flowers, chief among them were Valotta purpurea, Allamands Hendersani, Bougainvillea ghabrn, Foinciana pulcherrims, Aristolochia elegans. \&c.; 2nd, Mr. G. shelton, ET. to W. K. Wait, Eeq., Clifton.

Messrs, Keynes, Wiblians \& Co., Saliebury, had the best twenty-four Dahlias, and Mr. GEo. Humprarze. Chippenham, was ind. both haviag very good blooms indeed; and the same exhibitors were severally lat and 2ad with twelve fancies.
With twelve blooms, Mr. GKO, CooPER, Chippenham, was let, and Messrs. J. Cray o Co.. nurserymen, Frome, 2nd. The only exhibitor of twelve bunches of single Dahlias was Mr. T. smith, gr. to Thos. Carr, Esq., Tiverton, who was placed 1st with excellent varieties well-staged. With twelve Pompons in bunches there was a capital competition; Messrs. J. Cray \& Co. were 1st, and Mesars. Keynes \& Co, 2nd.

With twelve bunches of Cactus varieties, Messrs. Cray \& Co. were a pain lat; thes had Mrs. Peart, Dalicata, and Lady Penzance, very good; Mr. T. Casir was 2nd also with a good selection.
Quilled and fiat-petalled Astern ware very good, the fine Comet varieties taking a prominent position. Gladiolua spiles were shown in twelves; Mf. F. Hoprias, Bath, was 1st, and Mr. J. J. Younc. Wilton, 3nd. Pansies, Carnations, and Plicotees were very creditable for the senson; Hollyboeks better than we have been accustomed to see them.
Bunches of hardy annuals made a fine feature, Salpiglossis, white Sweet Pea, purple Jacoboes, Malope grandifiora, and a few others being very fine. Mr. Geo. Garratuy took the Ist prize. Epergnes. Bouquets, those of wild flowers, especially wreaths, Ace., were a very pleasing feature.

## Frut.

The best twelve dishes came from Mr. G. PYMM, who had Black Hamburgh and Muscat of Alezandria Grapes Roysl George and Exquisite Peaches; Lord Napier and Humboldt Nectarines; Apricots, Bon Chrétlen; Pears and "Telons, all very goed; Mricots, Bon Chrétion; Peare and

Black and White Grapes, Dinmond and Bellegarde Peachea, Humboldt and Downton Nectarines, Fige, \&e.
With six diehes, Mr. H. W. WARD, The Gardens, Longford Caetle, Salisbury, was 1st, having Black Hamburghand Foster's Seedling Grapee, Sea Eagle Peach, Moor Park Apricot, Figs, and Melons: 2nd, Mr. T. Erry, gr. to Captain Spex, Chippenham.
The best two bunches of Black Grapes were Eamburghs, from Mr. J. Gibson, gr. to Earl Cowley, Chippenham; Mr. J. Wright. gr. to H.O. Wills, Esq., Bath, Was 2nd.

The best two bunches of white Grapes other than Muscats were Buckland Sweetwater, from Mr. ATwELL; and Mr. WARD was 2nd with the same. The best two bunches of black Muscats were well-finished Madresfield Court, from Mr. black Muscats were well-finished Madresferme.
Mr. W. Carponter, gr. to A. R. Bailey, Eeq.. Frome, had the best two bunches of white Muscats; Mr. T. Bodges, Gr. to J. Forth, Eeq., Bath, was 2nd. There were plenty of Melons. Apricots were represented by fine Moor Park. Plums, green and red, were very good. The best two dirhes of dessert App!eg were Beauty of Bath and one unnamed, from
Mr. G. Garraway ; Mr. R. O. Hall was 2nd, with Beauty of Bath and Kerry Pippin.
The best two dishes of culinary Apples were Peasgood's Nonsuch and Warners King, from Mr. Strugnell; Mr. A. H. Suffield. There was a very largood's Nonsuch, and Lord bearing testimony to the fact that there are some very fine fruit in this district.
Messry. Geo. Buny $\triangle$ RD \& Co., Maidetone, had a large collection of culinary and dessert Apples, chief among them Pott's Seedling, Frogmore Prolific, New Hawthornden,
Warner's King, The Queen, Northern Dumpling, Yortshir Warner's King, The Queen, Northern Dumpling, Yorlishire Beauty, Transparent, Stirling Oastle, Domino, Lady Sudeley, Red Quarrenden, Cardinal, Irish Peach, Williama' Favourite Duchess of Gloucester, Worcester Pearmain, Beanty of Bath Early Julien, Kerry Pippin; a special Certificate boing given in recognition of their high quality.
Mr. W. New MaN, Bath, had the best oentre piece of flowers and fruit ; Mr. J. Atwell, gr, to J. B. Braiv, Eaq., Clifton, was 2nd.

## SHROPSHIRE HORTICULTURAL.

Augost 21.-This Society held its annual great show in the Qaarry, on the above date, in semitropical weather, and once more it is our pleasing duty to congratulate the committee and the able Hon. Secm, Memara, Adnitt and Naanton, upon the result of their combined efforts to make the twenty-firt annual show aperior to all shows of the kind hitherto held by the Society. The show was one of such magnitude and the individual exhibite so uniformly good, that with the apace at our command we cannot do more than mention the more important exhibits, with the renult that many deverving exhibits cannot herein be referred to.

## Plamts.

We may here remark that the twenty-eight scentod-leaved Pelargoniams exhibited by our clever correspondent, Mr James Hudson, gr. to Mr. Leopold de Rotischild, Gunnerabury House, Acton, London, excited a good deal of attention from visitors, all the more so owing to the fact that the plants were stagod with admirable effect in the open, having one of the largest tents for a background. Bearing in mind the attention the exhibit com mander, it may be of intorest to the readors flat-trained, and about O feet in width; filicifolium odoratum, a fine plant; Quercifoliam Mrs. Douglas, Q. minor, Lady Plymouth, FumsQuercifoliam Mrs. Dougtas mariety not often mith; Pheasant's foot, a fine plant; Mrs. Kingobury, Rollison's Unique, extre-fine; crisplant; Mrs. Kingebury, Rolizon's Unique, extredine; criso
pum, Fair Ellen, Aurora, Preety Polly, extra good; Lothario, pum, Fair Ellen, Aurora, Pretty Polly, extra good; Couterio, Devon, denticulatum minor, a variety that deserves to be more extentively grown; denticulatum, a fine plant: Blandfordiense, Lady Mary, Little Gem, a good plant, Fragrance, of fine size: Scarlet Unique, extra large; Major Ularke, Shottesham Pet, and tomentooum, a really fine lot, which richly merited the Gold Medal which was awarded to the cillection.
Prizes amounting to $\mathfrak{e 2 5}$ and $\mathfrak{L 3 0}$ were offered for twenty stove and greenhouse plants in bloom or foliage. Mr. Cypier Cheltenham, was lat for a good all-round lot of large, well grown plants, the most prominent being Statice protusa, Izora
Williamsii, Rondeletia apeciosa major, Rrion obbita purpurea, Williamsii, Rondeletia apeciosa major, Rrich obbita purpurea, Bongaiavillea ganderi, Crotons Sunset and Qieen Victoria,
Ec.; Mr. Fiach, gr. to Jas. MAnriotr, Eeq., Coventry, was ac. : Mr. Finch.
Mr. CYPHER was also lot for four Crotons, showing fite plants of Thompsoni, Sunset, Queen Victoria, and Chelsoni Mr. Frwce boing 2nd. The lant-mentioned exhibitor was 1 s for six flowering plants, showing good plants of Erics MarMr. CypRER was 2nd.
Menars. James Vgitcr \& Sons, Cheloen, showed a grand lot of Caladiums and Pftcher-plants, and a Gold Medal was awarded to them.

## Groups.

As urual, these formed a feature in this show. severnl good arrangements being put up for the liberal prives nfered, E20, e16. S14, and 212. Mr. OYpHers was a decided lat, his exhibit consisted of aseries of mounds having otnhal planto of
brightly-coloured Crotons, Calndiumes, and Orchide, iecluding several nice piecer of Deadrobinms. Phalenopais schroderians. and Cattleyas; the central middle arrengement partakian of an effectively-construoted arch. Mr. EDWARDS. Bestwood Lodge, Notts, was 2ad; and Mr, Finci was a creditible srd.
Mr. JOHM Cowfe, Liverpool, hed a fine proup of dwarf Roses in pots, mostly Teas, which attracted a good deal of attention, and well deserved the Bilver Medal which wis a warded to it. Mears. Pritceard \& Bors had an eztoasive a Gold Medal was properly enough awarded.
Mr. Edwin Murrell. Portiand Nursery, Shrewobury, was awarded a Silver Medal for Bogonias ; as also was Mr. Davis, of Yeovil, who as usual had a fine array of cut bloome of the newer donble and single flowered tuberons-rooted Begonias.
 sive collection of Ferns of decorative size and height: Mewrs. Smith. Worcester, obtained a Silver Medal in recognition of their exhibit, as alno did Messes. Myrrs, Shrewabury: Mesrm. Brinnife \& Co. receiving a aimilar award; an alwo did Mestre. Hewitt, Solihull, Edgbeton. Mr. Eckforn. Wom, rained a like distinction for a grand collection of Sweet Peac, of varied and beautiful shades of colours.
Mesars. Cutbush \& Sons. Hiphgate, had a grand and varies Sows, of Altrincham, had a good asoortment of herbacoous flowers, and an extensive display of Cactuses, including good Gasteria Crouchri and Echinocactus Leeandi; the Mesers. Dicksons also contributed good collections of decorative plant and cut blooms, and herbaceous flowers. Mr. JaMis CxpHer secured premier position for six Orchids in flower, distinct, secured premier position-flowered species.

## Cut Flowers

Theee made a grand display in themelves. Mr. EDWIN Murrell, Portland Nursery, Shrewsbury, bad a grand exhib tion of Roses arranged in various ways-stawdards, arches, \&c. to which a 2nd prize was awarded; Mr. Baly Cnosshing taking lat for a good arrangement in this claes.
Dahlias were etaged in large quantities, the quality being also of a high order. Memis. Kernes, Williams a Co. Salisbury, were easily lat for a grand lot of blooms, including all the leading varieties.
Ball bouquets and bridal bouquets, Messrs. Jones \& Sons, Shrewsbury, were lst for grand exhibits, composed mostly of Orchide, and well arranged; Messrs. Perkins, Coventry taking 2nd in a good class. The last-mentioned firm secured premier position in the class for a display of floral arrange ment on a space 12 feet by 5 feet. This exhibit contained variety of good designs, and choice Orchids were employed the several arrangements. Mesars, Jowes \& \&on and Mr J. R. Cenard taking 2nd and 3rd.

## Fruit.

The Society having attained ita mojority this year, opecial prizes were offared in the sehedule for a collection of twentyLycopodiuens, and other trailing plants; Terns and foliege being permitted to be ured for effect: 1et prize, e20; 2nd, £15; 3nd, el0; 4th, 25. Your good ints were staged, each exhibitortaking a prize. Mr. GOODACRE, gr, to tho Earl of harregton, E/vaton Castro, Darby, was a good 1st, etaging good full bunches of Gros Maroc, Muscat of Alexandria, wolid. well-coloured bunches; Barbarossa, good in aize, and benutifully coloured; and Foster's Seedling Grapes, Royal George, Princess of Wales, and Barrington Peaches, large, even, well coloured fruits of each variety being shown; Moorpart and Hemskirk Apricole, Victoria Pine-apple and Klruge Nectarines, of grand size and colour: Washington and Kirk Plums, Jargonelle Pears, Lady Budeley Apples, two fine fruits of Hero of Lockinge and Countess Melone, medium-sized Queen and Cajenne Pines, and Eon Chrétien Peart, all boing arranged to the best advantage in a groundwork of mone backed up with small Palms, Ferms, variegated stasses, and fringed with variogated Euooymus and Sarilax. Mr. Mcindoe was a creditable 2ad, his collection including fice dishes of Clapp's Favoarite, and Souvenir du Congres Pears, Magnum Boanu Plums, Brunswick and Negro Largo Figs, Stirling Cantle (highly coloured), and Violette Hative Peacher, and graudly-coloure S Spenser Nectarines. W Edwards, gr. to the Duke of 8 T . ALbans, Bestwood Lodge was a good 3rd; and Mr. H. PITT, Abergavenny, was a fans 4th. It is to be hoped that the society moy see its way to offer these liberal prizes annually, and to insist upon fewer planta being employed in the arrangement, 80 as no. to detract from the appearance of good fruit.
In the class for eight dishes, Mr. McIndot secured promier position with a good all-round lot of fruit. Hi lot ineluded pood Cros Maroc and Muscat of Alexandris Grapon sud a grand fruit of Mulon, Mammoth EMrugo Nectarima, and Stirling Osutle Fach, Ernad Negro Largo Migs, and souveair
da Congres Pears ; and Mr. Goopacas whe a good 2nd-wever lots were staged.
In the clan confined to Salop, five food lotn were staged, ine dishes, Sir C. H. Hovx, Boughtoo, Ludlow, taking lit, bis callection containing suod Black Hamburgh and Buckland avetwater Grapes, and Pine-applo Nectarines.
Grapes.-Three huodred and mineteen bunches of bigh quality were staged in the various classes. In the class for six buncher of black Grapen, in three varieties, seven good lote were put up. Mr. Craven, rr. to I Grant Morris. Rs j.. Liverpool, was placed lat for Madresfleld Court, Black Hamburgh, and Black Alicante; Mr. J. W. Raines, Rock Ferry, was 2ad, his half-dozen brucbes including fine specimens of Mrs. Pince, large ia bunch and berry, and fine in colour for the variety; Mr. Lambert, Ef. to Lord Hamiect, wan pleced 3rd for really fine exhibitt.

Mr．MoImpor secured Mearb．Pearson＇s prize，oftered for the mont meritorions exhibit grown with the aid of their manure，showing sood examples of Gros Maroc．
Eight lots of Black Eamburgh，three bunches of each，were hown，chief honours going to Mr．F．M．Prankliw，Cam bridge，with large full bunches，fine in berry and finish．Thi was a fine clase，all the exhibits being of $a$ high order．
In the clase for any other black，six good standa were staged the lat going to Mr．Ranwes．for good specimens of Madres field Court．Right boards of four bunchas，two varieties，of white Grapes，were ataged．Mr．Craven taking 1st，with good bunches of Muscat of Alexandria and Buckladd 8 weet good bine in rery reapect，the last－named exhibitor also had Whe be 1 O the best three buncher of Muscat ol Alozand aia．in a good clase ahowing good solid bunches，large in berry，and well－coloured In the any other white Grape claes，Mr
good lot，with fine banches of Mrs．Pearso
In the classes confined to the county of Salop，Mr．Alderrion Oswestry，was a good 1st，for two fine bunches of Black Hamburgh．Several good lota were shown in this class，
Mr．Lambert was a capital 1st in the any other black Grape class，with grand bunches of Madresfield．The same exbibitor was also well ahead for two bunches of Museats．
Melons were well shown．Carter＇s Blenhoim Orange，shown by Mr．Craver，was the bent scarlet－fleshed variety；and the Countess，shown by Mr．Goorsore，was lat in the class for green－fleshed．
Peaches made a good show，Mr．Harris，gr．to Lady Henry Somerset，Eastaor Castle，Ledbury，was a good lot with Barrington．
Eighteen dishes of Nectarines were put up．Mr．Ingwood gr．to T．F．Kinerley，Esq．，Tronbridge，was a capital 1st， with grand fruits of Pineapple，beautifully coloured

## Vegetables

The classes devoted to prodace from the kitchen garden， though of the usual character and possessing no novel charac－ teristics，were very repreeentative，and the exhibite usually were of the highest quality．Judging from the produce on the tables，little injury has resulted to garden crops froma the drought experienced during the early part of the season．

## Collections．

There were five competitors for the principal collection，in which twelve linds were to be included．A capital exhibit from Lady Theodora Gudst，Henstridge（gr．，Mr．T．Wilkins） won，and was closely followed by one from the Earl of Carnarvon，Highclere，Newbury（gr．，Mr．W．Pope）
In the first collection the Carrota，Cauliflowers，Onions， neans，Peas，Celery，Potatos，Leelks，and Beans，were of the highest quality；and the various dishes from the Karl of Cakialin can only be described in similari terms；Mis Tılbot，Panrice Castle，Swansea（gr．，Mr．Milner），was 3 rd．

A similar class，open only to the county of Salop，was won by Mrs．Watking，Shotton Hall（gr．，J．Birch），and this exhibit，together with several others，was evidence that vegetable growing in Salop is not in the least neglected．
Potatos were good in quality and clean．In the class for six dishes，there were a very great number of exhibitors，and the winner of the lst prize was the Earl of Carkarvon，Highclere Castle（gr，Mr．W．Pope）．His varieties were Supreme， Readiag Russet，Prizetaker，Windsor Castle，Satisfaction， White Kidney；2ad，Earl Lathom，Ormekirk（gro，Mr． Hathaway）；and 3rd，Mr．F．Dobsor，Keele，Staffordshire， exhibits were again very numerons．In the claes for three dishes，the Earl of Carvarvoragain being 1st；and the Earl of Lathom， 2 nd ．
Lady Theodors Guest was lst for one dish，with Gold－ finder；and the Rarl of Latroy was 2nd
Tomatos．－The besh dish of Tomatos whe one of six medinm－ izod good fruits of Webb＇s Senaation，exhibited by J． Grant Morris，Req．，Liverpool（gr．，Mr，J．J．Craven）；Lady Theodora Guest was 2nd．
Pods were not specially good，many of the pods being badly filled．There were，many dishes shown，however，and G．F．C． Byortist，Eoq．．Broseley（gr．，J．Jones），was 1st；and Bears，The Esq．，Tanybwich（gr．，Mr．J．Robertson），2nd． Waite，gr．to the Hon．W．P．TALBot，Reher，Surrey；and quility，the extibits ware was 2nd．Though not of extra henne ware oxhribit ware satisfactory．Excellent Runner Mr．F．Walter）；Lord Trevoin，Chirk（gr，Mr．F．Bible），（gr．， Cucumbers．
Lamley），had two Rery Darley，Haschurch（gr．，Mr．R Lawley），had two very pretty Cucumbers；and Col．B．T Lloyd，Oswestry（gr．，Mr．R．C．Townsend），was 2nd．
Cauliflowers were well shown，and the three heads from Mr， （ill Hr．，Mr．J．Birch）， and good quality，1st ；A．M．Biddulph，Eeq．，Chirs Castle Celery W．F．Roderick），was and
Celery，on the whole，was not of exceptional quality，but there were three very cood sticks of a white variety from Mr． ．Guxse，Hadaall（gro．，Mr．J．Abbott）
Parmipz，Carrots，Turnips，je．－The best Parsaips，among a very good collection，were some from Sr．J．Hazellding， Ksq，Woodlands，Shrewabury（gr．，M（f．Edwards）；and Mrs．Warkiss，Shottoa Hall，was 3nd．Mre．Watrivs had capital Clarrots，and won among many good exhibitu；the The beat six bunind
Owwetry；and Lady Treoporis Guser Cai．R，T，Lioyd， oown Onions，amon Treopoli Gurest was ht for untume GREATOBEX，Req．，Mytton very antiafictory exhibith，J．R Greatonex，fuccesul，Mytton Hall（gr．，Mr．W．Leith），was the wore several olay in the class for apring－sown Onions．There and Pess，aporaseny to amateurs．

## specint Prizes．

Numerous exhibits were staged in competition for prizes offered by Messrs．Webr \＆Soss，Stourbridge；Suttor \＆ Sons，Beading ；Pbitchard \＆Sons，8hrewsbury ；Mr．Crews， Banbury；Mr．H．Deverill，Banbuty；Mesers．W．Clibran Banbury；Mr．H．Devercle．BYDENHAM，Birmingham ；and Mr．E．Murrecle．Shrewsbury．
Is Messrs．Whebr＇s class for a collection of vegetables，inclu－ ding eight kinds，the lat prize was taken by Lady Theodora Guest，and the Earl of Carnarton was zud，whilst Messrs Sutror \＆Sox＇s principal class was won by the Earl of Lathom，who was followed by the Earl of Carnarvom
Messrs．Carter＇s class for four dishes of saladings was well contested，the 1st prize going to Mr．W．J．Empson，gr，to Mrs．Wingrield．Ampthill．The other seedsmon＇s classes Mrought together some satisfactory exhibits，including ex celleat Onions．
Cottagers had a considerable number of classes devoted to themselves，and the produce from these lesser exhibitors was by no means of inferior merit or quality．

## A CHILDREN＇S FLOWER SHOW AT ST．MARY＇S，WHITECHAPEL．

Floriculturn is reprementative of several useful societies of the kind now in operation in the east of London．They are formed in connection with the Day and Sunday Schools，the object being to interest the children in the calture of flowers in their homes．
St．Mary＇s is a red－brick built church on the right hand side of the Mile End Road，a half mile or so east of Aldgate，and early in the year a number of plants are bought－a selection being made of those which it is thought probable the children can cultivato with something like sucoess，and they are sold to the children at a merely nominal cost；a record is lept of each plant so supplied，and two or three months afterwards the children are required to exhibit them at a flower show held in the evening，when the parents of the children can attend．Some small money prizes are aw arded，the disused churchyard in which the show is held is dressed out with flags， a band composed of some of the young men connected with the church performs，and quite a tête is thus held．But this is not all the hon，sec．，Mr．F．A．Pasty，who is a post－offioe official，and an indefatigable worker，as well as an enthusiastic amateu gardener in Stepney，provides soil，leaf－mould，sand，cocoa－ fibre，\＆c．，and gives the children object lessons as to how to pot plants，and also elementary addresses dealing with the managersent of plants in windows and homes，all the more necessary，because many of the childran reside in courts and alleys，where the atmospheric conditions are by no means favourable to satisfactory culture．The ohildren are sncou－ raged to cultivate bulbous plants，such as the Hyacinth，Tulip， raged to cultivate bubbus，plants，such as the Hyacinth，Tulip，
Crocue，Snowdrop，Scilla，Narcissue．\＆co，and these are sup－ plied at a rate that may be said to place bulbs in the reach of all．On the occasion of the summer show on July 19，some 132 children entered for competition，and out of 345 plants supplied，more than 201 were brought to the show．The best－ managed plants are Zonal Pelargoniums，Fuchsias，Creeping Jennies，Lobelias，Calceolaria，Aspidistra，Campanula，\＆c and not a few of them show that gr ＇at attention has been and not a few of them show that Rr at attention has been derived from the sale of plants and flowers to visitors，by gate money，and it is satisfactory to know the sum of $\mathcal{E l} 1 \mathrm{~s} .6 \mathrm{~d}$ was taken in the form of admissions；the sale of refreshmenta brings in something，and a few donations，make up an income of between six and seven pounds，and the expenditure being something less．A satisfactory balance is carried forward Surely much good is gained by interesting the children in the culture of plants．

## MARKET8

## COVENT GARDEN，August 22．

［We cannot acoept any responsibility for the subjoined reporta．They are farnished to us regularly every caleemen，who revise the list，end al of the principal for the quotations．It munt be remembered that these quotations do not represent the prices on any particular day，bat only the general averages for the weel preceding the date of our report．The prices depend upon the quality of the samples，the supply in the market，and the demand；and they may fluctuate，not only from day to day，but often sereral timem in one dar．ED． 1


Out Flowers．－Aperagil Wholesale Pbioss．
Arums，p． 12 blooms $\begin{array}{ccc}\text { s．} & d_{0} & 8 . d_{0} \\ 2 & 0-4 & \text { Mignonette，per } 12\end{array}$

Asters，English，pe 12 bunches．． French po bn． Bouvardias，per bun． Carnations，per 12 blooms
Chrysanthemums per 12 blooms Carysanthemum per 12 bunches Gucharis，per dozen Glardenias，per doz Gladioli，P． 12 sprys Lapageria， 12 bumg dozen blooms Lilium lancifolium per dozen bloom Maidenhair Fern， per 12 bunches． Marguerite
12 bunches

Orchids：－
Cattleys， 12 bims．
odon to glossum
crispum， 12 blm．
elargoniums，scar－ let，per 12 bunch
$\qquad$ Pyrethrums， 12 bun． Roses，Tea，per doz．
－coloured $\mathrm{p} . \mathrm{dz}$ ． －yellow（Maré chals），per doz． red，per dozen －mixed，p．doz． bunches Stephanotis，dozen sprays
Sunflower＂（small）， doz bunches Wreet Peas， 12 bun． $20-4$ Tuberoses， 12 blms． 02 － 0
 Fbuit－Avirage Whulesalie Pbioes．


Vegetablig．－－Average Wholigale Prioks， Beans，Runners，per a．d．s．d． $\mid$ Mushrooms，per lb． 0 6．6－ 0 ．
bushel
Caulitlowers，p．doz．
Cucumbers，per doz
Marrows．veg．，
tally of 5 doz．
Tomatos，Home

Trade very dull．Supplies heavy．Prices lower， 82 to ill being fair average prices．J．B．Thomas．

## SEEDS

Lordon：Aug．21．－Mesers．John Shaw \＆Sons，Seet Merchants，of Great Maze Pond，Borough，London，s． 1 write that，as the present favourable weuther allows the lad to be rapidly cleared，there is，in consequence，a daily incress ing demand for Trifolium，choice samples of which are no obtainable on very tempting terms．Mustard and Rape see obtainain ore also continue exceedingly cheap．Wi value of Rye seed．Fo slowly．There is no change in the value of Rye seed． Canary，Hemp，and Millet seeds，as is usual during the hoilias season，the sale is now small．New blue Peas have ari
market．Linseed and Buckwheat show no alteration．

FRUITS AND VEGETABLES Borover：Aug．20．－Quotations：－Carrots，1s．Bd．to 23．
 s．per bushel
Spitalfielids：August 20．—Quotations ；Beets，18．6d．th 2s．per dozen；Turoips，28．per dozen bunches；Carrots， 28.64 do．；Scarlet Runners，1s．per bushel ；Onions，Egyptian， per bag．Apples，Keswick Codlins，1s，to 1s． $9 d$ ．per bushol Quarrendens， $3 s$ s．to $3 s .3 \mathrm{c}_{0}$ 。 do．；Marrows， 28 。 por tally．
STRATFORD，August 21．－The supply to above markot durim The past weet has been and，with plenty of bayem brisk trade was done as under：－Cabbages，18．to 38 ．por tally ；Cauliflowers，1s．6d．to 2s．6d．per dozen；do．， 2 m to 10 s ．per tally；Turnips，1s． 9 d ．to 2s． 6 d ．per dame bunches ：Carrots，household， 23 s ．to 308. per ton； 48.04 22s．to 25s．per ton；Onions，Porteaur，4s．9d．to 3.4 ，3s．th case ；Filberte，Kent，4s．to 5s．per haif－sieve，Greengrab 5 s ．per sieve ；do．，1s．bd．to 3s．per hall－sieve；Greengiglem
 3s． $5 d$ ．to 4s．6d．do．；do．，7s．to bs．to 6s．do．；Oncull

 English Tomatoo，38，to 4s．per dozen lb．；Scarlet Beass， 1 ，
 to 1s．6d．per bushel ；Peas，2s．3d．to 3s．per bashal；Y Vegel Marrows， $6 d$ ．to ls． $3 d$ ．per dozen．
Farringanon：Aug．22．－Quotations：－Apples，Quarme den，5s．6d．per bushel；Yellow Ingestre．6s．0d， 1 s．par Ib． 2s．6d．per basket（bushel）；Grapes，Eiogisb，1s．pea hell Melons，7s．per case of 24 ；Plums，Orleans，48．per in lis： bushel：Green Gages，4s 9d．do．：Tomstos，38．Gd．per burliel Cucumbers，2s．per dozen；Beans，Scarlet，3s．pos＇Tarriph Marrows，1s．bd．per dozen；Mint，Parsley，Carrour，od 3．per bunch：Cabbagea．1s．per dozen；Ho

## POTATOS

Bonoual：Aug．20．－Quotations ranged from eon to the per ton．
 to 60s．：do．，uplavid，35s．to 60s．；Snowdrope，6iss per boe Jeannie Deans，70s，to 80 s ；Imperators， 56 s．to

Farringdon: August 22.-Quotations: White Hebrons, 758. to 85 s ; Red Hebrons, 75s. to 85s.; Puritans, 70s. to 80 s. Bruces, 60 s . to 70 s .; Magnums, 55 s , to 65s. per ton.
London AVERAGEs: August 21.-Snowdrope, 70s. to 80s.; Hebrons. 65s, to 75s.; Early Regents, 55s. to 65s.: Puritans,
 per ton.

## HAY.

Averages.-The following are the svarages of the prices at the principal metropolitan markets during the past week:Clover, prime, 90 s. to 115 s . : do., inferior, 50 s . to 80 s : hay, best, 80 s . to 95 s. ; do., inferior, 86 s . to 60 s .; mixture, 70 s , to 228. $6 d_{0}$; and atraw, 20s. to 38s. per load.

## CORN.

Averages. - Official statement of the average price of British Corn, imperial measure (qr.), for the weel ending August 17, and for the corresponding weel last year 1895: Wheat, 24s. 61.; Barley, 10s. 3d.; Oats, 16s. 189: Wheat, 24s. 5d.; Barley, 16s. 5d.; Oato, 18s. 9d.


The term "accumulated temperature" indicates the aggre gate amount, as well as the duration, of degrees of namperature and this combined result is bexp for the poriod degrees-a "D Day-degree" resuit is expressod in Day-degrees-fa "Day-degree" signifying on continued for an inversely proportional inumber of houra. 1

| TEMPERATURE. |  |  |  |  | BSIETALIL. |  |  | Bhight 8Ux. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{2}{4} y$ | AOCUKULATED. |  |  |  |  |  |  |  |  |
|  |  | $\begin{aligned} & \text { Helow } 49^{\circ} \text {, for the } \\ & \text { Weel. } \end{aligned}$ |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | Day- deg. | Day- deg. | 10ths Inoh. |  |  |  |  |
| 0. 3 | 112 | 0 | $+170$ | + 263 | 1 + | 141 | $25 \cdot$ | 16 | 30 |
| 12 | 114 | 0 | - 21 | + 415 | $3+$ | 117 | 17.5 | 23 | 35 |
| $2+$ | 130 | 0 | + 73 | + 277 | 2 | 120 | 18.1 | 23 | 33 |
| 0 aver | 131 | 0 | + 23 | + 283 | 7 + | 105 |  | 39 | 38 |
| + | 128 | 0 | $+45$ | + | 1 - | 98 | 14.9 | 36 | 36 |
| ave | 135 | 0 | - 21 | + | $1+$ | 84 | 13 | 55 | 39 |
| 2 | 117 | 0 | + 41 | + 301 | $3+$ | 122 | 197 | 26 | 33 |
| 1 | 128 | 0 | + 51 | $+303$ | 2 | 107 | 17 | 28 | 36 |
| oaver | 122 | 0 | + | + 337 | 2 | 100 | 19 | 58 | 43 |
| 2 | 119 | 0 |  | + 288 | $2+$ | 135 | 19 | 18 | 32 |
|  | 121 | 0 | 70 | $+105$ | 4 | 113 | 21*4 | 24 | 3 |
| 0 aver | 140 | 0 | + 17 | +248 | 2 | 114 | 139 | 69 | 49 |

The districte indicated by number in the first column are he following:-

0, Sootland, N. Principal Wheat-producing Districts1, Sootland, K.: 3, England, N.E.; 3, England, R.i
4, Midland Countios; 5 , Rngland, including London, S. Princspal Grasing, \&e., Districts-6, gootland, W.; 7 Kngland, N.W.:8, England, S.W.; 9, Iroland. I. 10, Ireland. S.: FOhannel Itlands.

## THEPA\&T WEEK

THe following summary record of the weather throughout the British Islands for the week ending August 1\%, is furnished from the Meteorological Office:-

The wather continued unsettled and rainy in all parts of the Kingdom during the earlier half of the period, with occasional thunderstorms over England. Towards the middle of the period, however, \& gradual improvemont set in, and et its close the weather was fine and bright in nearly all places.
"The temperature was sllghtis above the menn in most dietricts, but only just equalled it in ' England, E., S., and S.W., as well as in the "Channel Islands.' Daring the greater part of the weak the daily maxima were considerably below the normal for the time of year, but on the 17 th the thermometer pose to between $77^{\circ}$ and $79^{\circ}$ over ' England,' $73^{\circ}$ and $78^{\circ}$ in Scotland,' and $71^{\circ}$ and $74^{\circ}$ over 'Ingland,' $73^{\circ}$ and $78^{\circ}$ in scotiand," and $71^{\circ}$ and $74^{\circ}$ in "Ireland.' The lowest of the anged from $36^{\circ}$ in "Scothand, E.' and $38^{\circ}$ in the "Midland Anged from $30^{\circ}$ in 'gcotland, E.' and $38^{\circ}$ in the 'Midland
Conatien' to $50^{\circ}$ in ' Bingland, N.W." and $53^{\circ}$ in the 'Ohannel
lan ds.'
"The raiafoll waried a good deal in ditferent parts of the Kinglom, the amounta owceeding the mean $2 n$ "Bcotisnd

England, E. and S., and Ireland, $\mathrm{N}_{\text {, }}$ and being somewhat below it in the other diatricte.
'The bright sunshine was deficient over the Kingdom as a whole, but exceeded the mean in 'England, S. and S.W. and in the Channel tslands." The percentage of the possible duration ranged from 69 in the "Channel Islands.' and 38 in England, S.W.,' to between 18 and 24 in "Ireland,' and to between 16 and 26 in 'Scotland.

** Owing to the large increase in our circulation, toe are reluctantly under the necessity of going to prus some hours carlier. Out contributors, who well know what this impliss, with dindly aid us by sending their communioations as carly, in the wednesday.

* Plants, Fruits, etc., to be Named.-Correspondents sending plante or fruits to be named, or asking questions dsmanding time and research for their solution, musi not expect o obtain an answer to their enquiries in the current wsek Specimens should be good ones, carsfully packed and numbered, and not more than six should be sent at one time
A Month's Warning: G. S. Domestic and Menial Servants, with regard to these, there is a wellknown rule, founded on custom, that their contract of envice may be determined at any time by giving a month's warning, or paying a month' wages, and this, although they be hired at moch a jear. A head gardener at $£ 100$ a year wagen, who renided in a detached house belonging to his master, has been held to be a menial eervant, and entitled to a month' warning only. Nolan $v$. Ablett, 1835. 'This case was argued before four judgen in Banco, and is reported as a leading case. They decided that as the gardener remided in a detached house intra menia he was a menial or domentic.
A New Vink-Border: Gardener. The chief constituent is good turfy loam freshly cat, and any of the ingredients you name in moderate proportions may be mixed with it. The bones should be broken finely - say, half-inch, and may be employed at the rate of one-ninth of the whole of the loam, that is, 3 cubic feet out of the 27 cubic feet constituting a cubic yard (one-horme cartload). Charcoal and lime-rubbish hould be used in smaller proportions. The border should be afforded ample drainage, and the outlet drains given a rapid fall, $s 0$ an to clear themselven rapidly. The border ahould not be more than 2 feet deep, and at the first not more that 6 feet wide.
Bulbs Left in the Ground: $D, T$. $H$. They ought to have been liffed when ripe, eny Jane and July. They have now made growth, and would be injared, but not killed, by removal.
Carnations: J. Cobban go Son. The coloura are an good and clear an any that we have noticed this year, bat in size the blooms have often been exceeded by others sent for our inspection.
Cori for Catrimyas, Lerlias, and Dendrobiums Amateur. Not so aitable as pots or pans for the firt or second; but they would grow fairly well if you can secure some lampa of a proper kind of Orchid peat and Sphagnam-mosa about them, 10 that their roots do not suffer from rapid fluctuations of mointure and aridity. The Dendrobiams if properly aecured with Sphagaum-mose bould grow satiffactorily.
Correction.- Northampton Horticultural Show Report, August 10. Inatead of par. beginnirg "Some well-grown Ferna," p. 164, read "The bett six Ferns were taged by Mr. W. Pearce, gr, to Sydney Loder, Esq., Floore House, Weedon, who was awarded 1; Mr. Copann, gr. to Mri. Phippis, Colliagtree Grange, 2; Mr. J. B. Palmer, gr. to R. Tarner, Eiq.. Cliftonville, Northampton, 3."Re "Eruit at Glewaton," p. 180, fifth and aixth lines from bottom, it should read "The trees are 9 to 10 feet high, and being the ame in diameter, they occupy the whole of the ground."
Cepripedium Ueruality: A Subscriber. It is diffcult to ay what carses the brown and unhealthy appearance seen on the leaf of Cypripedium tent. It appears to be of atunted growth, and it may probably have been kept in a too dry and unny fituation. To better itt condition you mast arrange for a freer growth in futare. Plants in uch condition may often be brought round by being turned out of their pois, wathed top and root, the
latter free from all the old potting material. Then re-pot in amall pote, using equal parts of lommfibre, peat, and aphagnum. Place in a healthy growing house, and water reasonably with rainwater.
Dredrobiuk Lear Turning Brown: Amatour. The effect of too mach heat and moisture and a close sirless house. Under these conditions mont Orchid grow weak and delicate, and fall a prey to both animal and vegetable parasites. Afford more air, lew whade, and let the house get dry at least once a day for a few hourn.
Gas Lime: Constant Reader. Use about an much at will cover the land from night. You may use more of it if the land is going to remain uncropped till the spring.
Hardy Annoals: D. T. H. Sow now seede of all those you mention excepting the Canary Creeper, the hardiness of which, even in your county, is doubtful, and Sweet William, which is best sown in early mommer to fower the next year. Sweet Williams raised from seed sown at this date would flower in the height of summer, and would lant but a short time.
Horticultural Examination Syllabus: J. W. W. Apply to the Secretary of the Royal Horticultural Society, 117, Victoria Street, Weatminster.
Insects on Rosm-bush: T. A. The caterpillar is that of Amphidacys betularia, commonly known at the "Pepper-moth." It feed on a variety of trees and hrubs, bat is seldom so abandant as to be considered an "injurious inaect."Jones, The mase consinta of the cocoons of a minute Hymenopteroun insect, the larva of which to the number of several handreds, had fed in the interior of the body of a caterpillar of 10 me Lind. which it is impossible now to recognise. $R, M c L$.
Ivy Cotrinas: Constant Reader. The cuttinga, half ripened hoote, may now and later, be pat into moiat, andy, manured toil, in partial shade. The variegated varieties strike bent ander hand-glasses. Kew Bolletin": J.M.T. Any bookseller, or from Eyre \& Spottiswoode, Esst Harding Street, Fleet Street, at $4 d$. a part. Tha post-office nearent the main entrance is that on Kow Green ; but there are others!
Lilies : L. C. L, Hamboldtii, L. Parryi, and in warm situations, L. longiflornm, are hardy with slight protection. L. Harrivi is greenhouse plant reverting to L. longiforum, L. Krameri is rarely kept long uader any nytem, $H, J, E$.
Lobila rbinua Cuftingas: D. T. $H$. They will strike at this seman in a clone frame, sither planted in pots or on a bed of loamy soil covered with a lajer of aand. If a alight bottom-heat can be afforded, the triking woald be quick. The length of a cutting 2 to 3 inchea.
Mignonette: $D . T . B$. Gather any of the capaules when the seed is seen to be either dark brown or black. Do not pluck the entire risp of aeedvesaels, as there are aure to be many unripe seeds therein. Look over the planter every third day for ripe seed. Dry in the shade.
Names of Fruits: W.J. Holmes. Peat: Rousselet de Stattgart.-R. Hughes. 1 and 5, Dachens of Oldenburgh; 3 and 6, Red Aatrachan; 2 and 4, not recognised.-R. McDougall. Specimen sent not yet developed, $s 0$ cannot determine with afety. No. 1 and 2 may be Cellini ; others not recognised.-G. Albert James. 20, not nufficiently developed; 21, Cox's Orange Pippin; 22, Lord Gronvenor.-Carlton. 1 and 3. not recoqaieed; 2, Waitham Abbey Seedling; 4 and 5, Dachees of Oldenbargh; 6, Rosemary Runet.-Biddles. Small Ponr, not recognined; worthlens.
Names of Plasts: Correppondente not answerdil in this isme are requested to comoult the next mumber.C. Pyrut foribunda, Nicholeon (Malu* floribunde, Sieb.), Japan.-G. G, S 1, Alstromeria pititaciaa, 2, Lythrum malicaria; 3, Lysimachia valgaris ; 4, Asclepias sp.;5. Linaria purpurea; 6, Hyoscjamus niger; 7. Calcoolaria.-R.T. $\boldsymbol{H}, 1$, Stuartia pentagyna; 2. Larus Sassafras; 3 Acer creticam.Alpha. 1, Catalpa syringzfolia; 2, Oncidium Ciurdneri, Lindl., Gardeners ' Chronicle, xvi., p. $86^{\circ}$; 3, Eupatoriam (Conoclinium) ianthinum. $-R$. . I, Zebrias pendals, greenhouse; 2, 3, Zobrina pendula var, tricolor, tove; 4, Panicum variegatom; 5, leaf only; 7, Centaurea monchata. bardy annual; 8, Scabione atroparpuren, hardy, Why and wretched crape, badly packed and nam-
bered? - H. May. We should refer both to Inula Hookeri.-H. M. E. Mentha aquatica. The Secretary to the Garde ner''Orphan Fund is Mr, Archibald F. Barron, Royal Horticaltaral Society's Garden. Chiswick, W.-J. C. Linaria reticulata var. aureo-purpurea.-G. S. R chea falcata.-A. Brothers. Statice latifolia.-A. L. Amorphophallos bulbitry. -W. K. L. 1, Radbeckia laciniata, L.; 2 Radbeckia californica, A. Grayo - Fo. P. Dendrobium chrysanthum. - Constant Reader. 1 and 2, Not found; 3, Dandrobium chryannthum; 4, Dendrobium formosam, very good; 5, Dendrobiam Findlayanam; 6, Pholidota imbricata; 7. Polypodinm valgare var. cam-
 L. B. G. Stanhopea tricornin, Maxillaria Mackayi var.
Oncerids: S. H. 1. The cause of black spots on the Leaves of Epidendrum vitellinum is probably owing to its being grown in a too airy and zanoy boane. Although not wanting a high temperatare, it likes a genial warmth, tolerable shade, and plenty of water when growing. Afterwards, any greenbouse will do until the next growths begin. 2, The Peristeria asperaa (fresh imported) may bloom at any time. We zaw it in flower about five wetks ago. 3. The appearance you mention in Dendrobium thyraiforam reems to indicate weak growth not grown rapidly enough at the proper time, and then rested. Hence the new growth pushes forth before the previons one is fully made.
Pest: Amateur. It in not the right kind for Orchid culture, but would suit Heaths. Get Peat for your Orchids that has a ailky pleasant feel, and little or no wand in it, but which has plenty of decaying roote of Ferns, \&c. It should be in a partially decajed state when uned.
Ratise: Montanc. Glasehouses in which frait. flowers, and vegetables are grown for sale, are to be rated at only one-fourth value. See Parser $v$. The Worthing Local Board, in Gardeners' Chronicle, vol. i., 1887, p. 422.
Raubarb: H. L. Certainiy Rhabarb in not a cultivated torm of the common Dock.
To Drive awat Ants: G.T.C. and G. A. Find their neste, and pour carbolic acid diluted with swelve times ite balk of water into them. Petroleum, aulphur, goano, gas-tar, lime-water, are all effectan in driving them out of their haunts. More than one application may bs necessary.
Thopmolus Sred : D. T. H. The fleshy covering is always fresh aud green when the seed falls, bat it soon dries ap, and may then be rabbed off and the seed stored in paper-bags in a cool, dry place.
Tonatos Diges sed: W.W. The aporea of the fungua were floating in the air, and conditions of warmth and moiature being favoarable, they attached themselves to your plants. These sorts of enemies of plant-life aboand everywhere, and the gardener cannot do better than apply preventive remedies before an attack occura. See our inaue for Auguat 10, and many others this year.
Wiek Berry: W. T. T. Rabus phcenicolaniue.
Commumeations Received. - Adnitt a Naunton.-A. J. N. W. Lroomhall, -K. B. G. (next week) -A. W. - W. (next weel). W. Broonhall.-1. B. G. (nozt weok),-A. A. (next weel). C.E. F. (next Weok), -A. L. (next week), J. S, \& Son.-
 Grimaby. - F. R., Bertin.- - .T., British Guians - Johnson, lington. - F. B. W. H. H. J. (next week). - M. (next weoky.
 T. W.-W. Guthrie.-J. R., Menabilly (We will endeavour to accede to your request),-C. W. D. (We will examioe and report).-W. M.-Ubique, and others (next week).
Protoeraphs, Spectmens, \&C., Becerved With Thanks. A. Lo, Amorphophallus bulbiter, -E, B.

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CATASETUMS-ALL Unflowered
from the same Importation, out of which we have flowered
 Lindeni, C. Luciani, C. O'Srienianum, C. quadricolor, C.
splendens, and its magrificent varieties, C. aplendenas aureum, splendens, and its magzificent varieties, C . splendens sareuma,
 exhibited at the Royal Horticultural Society on November 17 last, when several of them received an Award of Merit. The Fariation seams endlass, other quite New and Magaificent

$\mathrm{M}^{\mathrm{E}}$ESSRS. PROTHEROE AND MORRIS a their Central Aale Rooms 67 and 88, Cheapside, London, On view morning of Sale, and Catalogues had.

## Enfield Highway, N.

TWENTY-SEVENTH ANNUAL TRADE SALE ot sToVE

NESSRS. PROTHEROE and MORRIS are natracted by Mr. John Maller to sRLL by AUCTYON

 About 00,000 Eemarkably Well-grown
STOVE and GREENHOUSE PLANTS, mootly in No. 48 pote, and fit for imm
Consioting of 20,000
 2,000 TRRE and other carnations,
ineluding Winter Cheer, Mrb, Moare, Jolithe. ILa Neige, \&o.
Also a fine lot of Mdlle. Thertese Franco, Uriah Pike, \&c. 2500 TEA ROSES IN POTS.
inaluding 150 Paul's new Climbers, Alister, Stella Gray, and
Carruine Pillar; Orimson Rambler, Brideemaid, Bride,
Niphetoe, C., Mermet, Maréchal Niel, Olimbing Niphetos,
Gloire de Dijon, Madame de Watterille, Perlo deed Jardina,
 1,000 Ferns, Adiantums, Poly- 1,000 Ampelopsia Veitchii and 3,000 Botraramias, , sead.
3,000 Bouvardias, leading sorts 1,000 Genista fragrans
1.000 Zonal Graraniums, new 1,000 Grevilles robusta
8,000 Solanums, exceptionally
300 Aspidistras
1,000 Pawifloras, large quantities of Fiens, Bogoniss, PoinEybrid Crnavalas, Tavonias, Stophanotis, Allamasndas, Dipladenis Eolivienaie, and othern.
May be viewrd any day prior to Sali. Catalogues may be and 68, Chemplide, Tondon, H.O. Tricu ave pollenums are unquestionably the fiapst lot Well sat for flower, and the Solanams anuanally well berried.

## Avenue Nursery, Bezley, Kent.

FIRST ANNUAL TRADE SALE Of bevtifully-grown PLANTG. By order of Mesars. P. H. and J. Cooper. Without reserve. M ESSRS. PROTHEROE AND MORRIS are instrueted to SELL by AUCTION, on the Premises, as above, on WEDNESDAY. September 18.
Ghoire de Dijon, L'ldéaly Sunet, Niphetoa, Maráchal Niel, Mormat, Bride, Chathant, Climbing Devoniensis, Satrano, C. 9000 C\&RAATIONA, ineladid, Turner'sCrimaon Rambler, \&e. Hole, Malmaisom, Germanis, Doroth Moore, Mrs. Roynolds Pio, Urimh Pike, Germanis, Dorothy, Alice Ayorn, Duke of 10,000 Fier Majeaty Pin

| 10,000 Efur Mujeaty Pink 1,500 shrian hyematio, in 487 |  |  | 8000 Iriaa Wilmorsana, 80\% |  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1,000 \\ & 1,000 \end{aligned}$ | Isial | hyomatie, in 48.a tracilis, in 60" |  |  |
|  | $\cdots$ | Wilmertas, | 1000 Atrupe | Opuil Veitahii |
|  |  | 4, | 1000 | is, in 48'3 |
|  |  | Ficus, |  |  |

## E VER $\mathbf{F}$ <br> DAY.

## DUTCH BULBS.

## GREAT UNRESERVED SALES.

MESSRS. PROTHEROE and MORRIS will SELL by AUCTION at their Central Sale Rooms. 67 and 88, Cheapside, London, E.C. EVERY DAY, at 12 o'clock,
large consignments of NAMED HYACINTHS, TULIPS, large consignments of NAMED HYACINTHS, TULIPS, to suit the Trade and Private Buyers.
to ailto the Trade and Private Buyers. CANDDOUM, sNOWDROPS, sc.

On view morning of Sale and Catalogues had.

IESSRS. Priday, soptember 13. instracted SELL by AUCTION at their Central Sale Rooms. 67 and 88 , Cheapside, London, E.C., on FRIDAY, September 13, at half. past 12 o'Clock, 100 lots of choice, clean, well-grown Orehide Amongat them will be found:
Odontoglossum hy brid Dicran-
Dendroblum opternm, bery rare
Wardianum Louri
Wardanum Louri $\times$ aplendithe original plant
Dendrobium hybrid Aspasia
Roeblingianum, very
rare
" chrysadiscus
nobile, with pure white
sepala and petals albuma
Caittleya eldorado crocata, true

- roseun

Mosaise
Bowring
Lélia Bowringiana
Leslia purpurata Brysiana autumnalis alba
Gelogyne cristata alba
Coelogyne cristata alba Lycaste fica
Miltonia festiva
Cypripedium insigne Lutwycheanum, a yellow C. i. Erneatii, the original plant
Brownii
orphanum
Druryii
Eyerman
Yermannianum Diana
media

On view morning of Sale, and Catalogues had.

## Upper Holloway.-Unresorved Salo.

MMPOBTANT SALE of Valuable STOVE and GREENHOUSE EXHIBCIION and DECORATIVE PLANTS,
Br Ordier of Mrssrs. B. B. Williams \&e Son,
Who, with a view to romoving their Nurseries to more concmodious premises in the country, are about to dispose of a portion of their Ereehold Land for building parposes.
The following will be found in the Catalogue:-Splendid SPECTMEN and HALF-SPECTMEN PLANTS, and also a Large eelection of GENRRAL NURSERY STOCK, including Greenhouse Rhododendrons, Azaleas, Cliveias, Oameliias, Crotons, Tree Farne, Palms, Kentias, Ac. : also fine specimen Lapageris albe and roves, Allamandes, Bougainvilleas, Clerodendrons, Pandanus, \&c., and a large assortment of Cannas, Dracanas, Crotons, Araucarias, Amaryllis, Pancratiums, AnChuriums, Marankes, Orchids, do.. Which will be SOLD by opper Holloway, Mremises, Victoria and Paradise Nurseries, MESSRS. PROT
LESN. PROTHEROE AND MORRIS, on
MONDAY and TUESDAY, Soptamber 16 and 17 , at o'Clock each day.
May be viewed any day prior to the Sale. Catalogues may be had at the Nurseries, and of the Auctionears, 67 and
68, Chespaide, London, E.C.

## AUDENSHAW, NEAB MANCHESTER.

HIGHLY IMPORTANT SALE

## OF THE

## CELEBRATED BEECH LAWN COLLECTION

## ESTABLISHED ORCHIDS,

WIThout tae alightrat rejegve, by order of W. R. LEE, Eqq,

Who To relinquithing thair ealtivetion, in consequence of

MESSRS. PROTHEROE AND MORRIS are powned Collection on the Promiteo, on TURSDAY Te
 120'Olosk precisaly each day.
contains of plants of exceptional merit the rarity number it contains of plante of excoptional merit and rarity, the whole Alvo the GBreviOin
Arsctions of Six Groenhoues, SLANTS of Sorts, FRENS, the arections of siz Greenhounes, Saddle Boiler, 1400 foet of HotGarden follor, Flower Pots, Gherden Jeat, Garden Mower, Gardea Rolue, Flower Pots, Gwrden Ieat, Garden Roller,
May be viewed by appointouent
Catalogues may be had of Mr. Thomay Bilior to the Sales. Gardener, on the premises, and of the Billington, tha Head Gardeaer, on the pramises, and of the iuctioneers, Valuerw, N.B.-The Orchide have, Cheapnide, London, E.C.
ohestar, and have abtained many Fint Lrizes, and ManMarit, F.C.C.O. Goll Medale, and satea prixes wherever
chown.

Dyson's Lane Nurgeries, Opper Edmonton
TENTH GREAT ANNUAL UNRESERVED TRADE SALE
of POT PLANTB. MESSRS. PROTHEROE AND MORRIS are the Premises as above, on MONDNAY. September 9, 1805,
 TEA-ROSES, Climbing and Bush Varieties, also Grand Lot of TURNER'S CRIMSON RAMBLER, with growths 18 in 15 feet long, and well ripened. BOUVARDIAS

| newest and best sorts | CROTONS |
| :--- | :--- |
| FERNS, thousands in various |  |
| PALMy |  |


| sizes | GENISTAS |
| :--- | :--- |
| SOLANUMS | HYDRANGEA |

ERICA HYEMALSS DRACAENAS, ARALIAS FICUS ELASTICA
CZALEAS, CAMELLIAS DOUBLE PRIMULA8, POIN CLEMATIS, IVIES LAPAGERIAS [SETHAS
MMPELOPSIS GARDENIAS
Plant a Great Varioty of other useful Flowering and Foling May be viewed ; catalogues had on the premises, and of the Auctioneers, 67 and 68, Cheapside, London, K.C.

## Lee, Kent. S,E.

GREAT ANNUAL TRADE SALE to commence punetually at 11 o'Clock, there being upwards of 1400 lots to sell in on
 1 instructod by Messrs. B. Maller \& Sons to SRLL by Lee, Kønt, S.E., adjoining Leo Railway Station, S.E. Railmy, on TUESDAY, Septomber 10, at 11 o'Clock precisely, withont reserve, a remarkably well-
ING HRATHS and other-

STOVE and GREENHOUSE PLANTS,
15,000 Erica hyemalis $\quad 5,000$ Solanum espsicastrum


4,000 Genistas
abutilons, choice sorts to name, Dipladenias of sorta, \&om with a large quantity of young Ericas, Hyemalis, gracilia, and othor varietios: also Genistas and Ferns of sorta, all in 60 -poth ter growing on.
The stock may now be riewed. Catalogues may bo had on the Premises, at the Sced Warehouge, 61, High Streti, Lewisham, and of the Auctioneers and Valuers, 67 and 68, Cheapaide, London, E.C.
N.B.-Intending purchasers are invited to inopoot tho took, which is cunuaully well-grown, the Heaths being par ticularly well set for flower
South Woodford, George Lane Station, G. E. By UNRESERVED ANNUAL SALE.
The Plants offered in this sale are of superior qualits. They have been grown in New Greenhouseg, in the pure air Epping Forest, and cannot fail to give purchavens atir
satistaction. satistaction.

$\mathbf{M}^{1}$ESSRS. PROTHEROE AND MORRIS, are inntrncted by Mr. John Fraser, to SELLL by AUCIION on the premises, The Nurseries, South Woadford, Essex, on
WRDNESDAY, September 11th, at 10 for 11 oclock precisels, in consequence of the number of lots.
Many thousands of
WINTER-FLOWERING \& OTHER PLANIS 15,000 Erica hyemalis including6,000 Variegated and other 8,000 Erica hyemalis albs
1,000 Erice caffra.
4,000 Erica gracilí
8,000 Geniste Iragrans
10,000 Ampelopsig Veitchii,
1.000 Lepageria rose suparbe

3,000 Cyolamen peraicum
2,000 Pamifiora, (Fraper's anstance
Elliott and Coerulea
6,000 Clematis Jackroanii and other best named orts.
Together with considerabl 200 Maréchal Niel Boses 10 to 12 feet 1,000 Tes Scented Hores, ill
1,000 Climbing Rocos, in pots 1,000 Deutzia gracilis, evito lished in po
earliest forcing 10,000 Eourardias, iiadidias Cleveland bantifally 5,000 Solanume
barried, in rariety quantities of ARA HONE. UCKLES, Hardy FUCRSIAS, in hite JASMINR of sort" Turner's new sensational ROSR, "CRTMSON BAM on: and Also a large number of small REICAS for growing FIRLDII, and other fine verieti es for cutting
MRLDII, and other fine varieti zs for cutting Catalag may Cheapaide, E.C. and Leytonstone, E.

Extract from the Graat Eastarn Tim Table.



## sidcup, Kent, s.E

about Ten Minuter walk from the New Eltham (late Pope GREAT ANNUAK TRADE SALE Of WINTER-BLOOMING HEATHS, particularly well-grown and beautifully set ESSRS. PROTHEROE AND MORRIS will VI SELL by AUCTION on the Premises, the Longlands Nursery, Sidcup, S.E., on FBIDAY, Sept. 13, at Eleven o'Clock, vy order of Messrs. Gregory \& Evana, an enormous quantity of unusually well-grown Plants, comprising in excellent condition, and particularly well set with Flower| 2000 Erica gracili $\left\lvert\, \begin{aligned} & 2000 \text { Erica gracilis } \\ & 1000 \\ & 100\end{aligned}\right.$ " Wilmoreana 1000 magnifica

1000 , coccine mino
50,000 Heath in $60^{\prime \prime}$ for growing on, 5000 Genistas in $60^{\circ}$
10, An anusually Grand Lot of
10,000 Climbing and other ROSES in 24" 9,12 to 15 feet Also about 5000 Extra Good Plants in $48^{\prime}$, exoeptionally well consisting of the following Climbing Perle des Jardino
Niphetos

Queen of Queens
Crimson Rambler
Devonienais
Climbing Cheohunt Hybrid
Bouquet dor
L'Idéal
Madame Berand
Maréchal Niel
W. A. Bichardoon

Also Niphetos, White La France, and many other good parieties of Teas.

1000 Araucaris excelse
5000 Bouvardias, best varieties.
5000 Solanums
together with a Splend

## May now be viewed.

of the Auctioneers, 67 and 680 gues had on the premises and N.B.-The Stock of plants this season will be found well up to their usual standard, special attention being invited to the Heaths and Genistas, also the Solanums and Boses, which are probably the best ever offered at this Nursery.

Isleworth-Spectal Trade Sale.
ANUAL SALE of thousands of beautifully-grown young CONIFRRS and GOLDEN RUONYMUS, for immediate Potting, Window-boxes, or for Growing-on. By order of Mesars. Chas. Lee \& Son.

Mwill ser PROTHEROE AND MORRIS the Wood Inane Nurneries, Isleworth, 5 minutes' wall from the Isleworth Station, L. \& S.W.R., and 20 minutes' walk from Osterley Park Station, District Railway, on THURSDAY, September 19.

Fuller particulars will appear.
SALE of ORCHIDS and BULBS, on FRIDAY NEXT, September 6.
By order of Meesers F. Sander \& Co., St. Albans. M ESSRS. PROTHEROE AND MORRIS have 8FLL by AUCTION, at their Central Auction Rooms, 67 and 68, Cheapside, London, E.C., on FRIDAY NEXT, September 6, at half-past 12 o'Clock

A VARIETY Of IMPORTED ORCHIDS and BULBS. A fine Consigament of
CYPRIPEDIUM INSIGNE MONTANUM,
from the same locality which jielded C. i. Sandere, kc., will be offered. The plants are in fine order; many fine masees are rackied.
dendrobium nobile, Lang Tayg Type,
from the Lang Tang Mountains, which have yielded all the most beautiful varieties. The plante are in fine condition and new rarieties may be looked for.

DENDROBIUM DAKEOUSIEANUM.
LELIA PLAVA, a beautiful, compact-growing Orchid. CATTLEYA CITBINA.
LJELIA LUCASIANA, a dwarf, bright-flowered Loelia. DENDROBIUM CUCULLATUM.
DENDROBIUM \&TATTERIANUM, gem among Denarobes, easiy srown,

CIPRIPEDIUM BELLATULUM, t fine conugament, many fine cla

Obysis tpecie
LELIA AUTUMNALIS ATBO-RUBKNS (true), the finent ad darkest form DENDROBTHM MOOREANA, bozes of Miscellaneous OBCEIDS, \&c.
Also EURYCLES CUNNINGHAMII (the Brisbane Lily), White flowers, easily grown. BESSERA ELRGANS, ecarlet, KALBR SYERTI many URCHIDS in Flower or Bud.

On view morning of Sale, and Catalogues had.

## SALES by AUCTION.

MONDAY, WEDNESDAY, and THURSDAY NEXT. DUTCH BULBS - DUTCH BULBS.

MR. J. C. STEVENS will SELL by AUC TION, at his Great Rooms, 38, King Street, Covent Garden, on MONDAY, WEDNESDAY, and THURS September 2, 4 , and 5, at half-past 12 precisel
GRAND IMPORTATIONS Of BULBS fr GRAND IMPORTATIONS Of BULBS from HOLLAND FOR WINTER AND SPRING FLOWERING,
IN THE FINEST POSSIBLR CONDITION for present planting, comprising .A splendid selection of HYACINTHS, including many of the newest and beat sorts, g great variety of TULIPs, new and COLCHICUMS, \&c. Aleo

> Forcing Buibs from France, COANIDUM and L HARRISI

LILIUM CANDIDUM and L.HARRISI, IRIS, \&c... Bayera.

On view morning of sale, and Catalogues had
Important sale of High-class Orchids and other
EXOTIC PLANTS, at East Fergus Place, Kirkcaldy, N.B.
on FRIDAY, September 13. MR. CHARLES S. NEILSON, Auctioneer, by PUBLIC ROUP, at East Fergus Place, Kirkcaldy, on and collection of OBCHIDS, \&c., formed by the late James Jamieson, Kac
The ORCHIDS comprise the following genera in many fine apecies and varieties deservedly worthy the attention of Ploriculturists :- Oattleya, Ccelogyne, Cypripadium, Den drobium, Leelia, Lycaste, Odontoglossum, Oncidium, Phaius Thunia. Vanda, and Zygopetalum.
The Greenhouss contains excellent assortments of well qrown Plants, embracing Agapanthus, Agaves, Araliae, Epacris, Ferns, Fuchsias, Geraniums, Hydrangeas, Lapagerias Primulas, \&c.
Sale to begin at $120^{\circ}$ Clock.
Catalogues to be bad from the Auctioneer, or GIBSON AND SPEARS. Solicitors, Kirkcaldy.

Southwick, Sussex
Near Brighton. Close to Railway Station
Several very valuable Plots of FREEHOLD LAND, wel adapted for Market Garden and Horticultural Purposes

M ESSRS. WM. WOOD, SON, AND GARDNER, in a Marquee on the Estate, on WEDNES DAY, September 11, 1895 , at half-past 2 o'Clock precisely
(after the Luncheon). Particulars, Plans, and Conditions of Sale, may be had of W. F, VRRBALL, Esq., Solicitor, Worthiag; or of Meears veyors, Ifield Court, Crawley, Suscex.

## W

ANTED, to Rent, SMALL NURSERY. North of England preforred.

FLORIS'T"S BUSINESS, City of London ; established three years; first-class trade ; rent 2120 ; price 2700.-Mesars. KNOPP \& CO.. 3, Lawrence Lane, Cheapside. CO BE SOLD, a good GARDEN, situated in a very healthy spot. Good esale for produce. Within stance of three towns. For particulara apply to
TUDOR, 41, Wellington Street, Strand, W.C.
HIRST-CLASS FLORIST, SEED, BULB, and PLANT BUSINESS FOR SALA: sam
W., 17, Albion street, Hyde Park, W

To Nurserymen and Floriats commoncing buatnese. F AMPTON-ON-THAMES, on THi Marling 1 PARE EsTATE, free from London fogs, a deep r'ch LAND for SALE, on easy system of payment. Excellent site for residences,- For fill
©OUTH PORT.-Gentleman's 13-roomed Detached HOUSE, all modern conveniences, with Vine ries, 120 by 18 , containing about 200 youna Canes in full heat; Gardens, and Stables. Sold cheap. Left owing to heat; Gardens, aply, HATCH, Southport; or BATEMAN Woodlands, st. Mary Church.

## EXHIBITIONS.

GECOND INTERNATIONAL HORTICULTURAL EXBIBITION, DRESDEN

From Xay 2 to 10,1896
Under the high protection of His Majesty the King of Sazony. For particulars, Schedulen, do. write to the seereteriat de Zweiten Internationalen Gartan bau-Ausatellugg zu Drosden. O. LAMMERHIRT, T. Glaciestraes. Dreeden. N,

Royal Horticultural society, 117, Victorla street. GREAT SHOW OF VEGETABLES AT TUESDAY, September 10, 1895. Schedules of Prizes masy be obtained from the Secretary. R.H.S.o 117, Victoria Street, 8.W. There will be A VEGETARIAN LUNCHEON at 1.80 P.M. Tickets (not including wine, \&c.), 2s. od . , to be obtained from the Secretary of the Society
A Lecture on "Garden Manures," by W.'. W. Watson, Eaio, will be given at $30^{\circ} \mathrm{Clock}$.

FOR DISPOSAL, established NURSERY. In same hande twenty years; age the cause of parting With it. ind Boilers complete. shrube, Fruit, and Forest Tree in Stock. Any reasonable offer accepted. - J. BENT, Fo
Lane Nursery, near Maryland Point Station, Stratford, E.
( UERNSEY. - Gentleman's RESIDENCE U with Fruit-growing eatablishment; efficiently watered, and pleaaantly situated. Also FRUTC-GR, returns.

COWPER, Gibauderie, Quernsey.

## To Market Gardeners.

FOR SALE, 12 miles from London, TWO FREEHOLD MARKET GARDENS, consieting of 750 and 800 foet run of Glass, both in full crop of Tomatos and Cuoumbers, to be sold together or Beparately victoria Street, Bekedere, Kent.

H
OR ORCHIDS and GARDENERS Grow thoan, apply to 84NDER'S, St. Albans. The inest Orehid in the World.- 80 minater from at. Painae.
N ARCISSUS. - Emperor, $7 \frac{1}{\text { A inches circum- }}$ POPE AND SONS, Nurserymen, Birmingham.

## DENDROBIUM PHALÆNOPSIS SCHRODERIANA

MESSRS. HEATH AND SON'S Colleotion are now in full flower. specimen blooms on applioation. plants from 42s. per dozen.

## Royal Exotic Nurseries, Cheltonham.

POETICUS ORNATUS.-10,000 first size for forcing, true to name, dirset from the grower at 16 s per 1,000; and 10,000 Double Yollow Daffodils at 27s, par 1,000, arge sire,-THOLM,
Mary, Lincolnehire.
BULBS,-If you want the finest procurable B sorts that won at the Great Hasilem Quinquennial Show, and grown by the actual exhibitors, wend for PORE AND
SONS CATALOGUE, Numerymen, Birmingham.
CPECIAE BARGAIN in BULBS, for one week only.-Amaryllis Johnsoni, 7 inch, 60 . per 100,
 Freesia r.a, $18 .$. .
Cash with order.
W. H. HRNDRRSON, Threefield Lane, Southampton.

## IAXTON'S "ROYAL SOVEREIGN STRAWBRRRY,-Large well-rooted Runners, warranted GEORGE PYNE, Denvar Nurs with order.

EESSRS. KVEES AND LARCHE, PINOS TORDMANMIANA, per pud ( 16 kiloo.), 22 Rble LILIUM OOLCHICUM (Soovite) per 1000 balbe 50 Rble. 100 for 51 Bble.
IRIS RUMICULATA. per 1000 bulbe, 18 Rble., 100 for 2 Rble. FRITILLARTA tulipifolia 1000 , 28 Rble., 100 for 3 Rble. PAONTACORLLLINA $1000 \quad 200$ Rble., 100 for 25 Rble Wholenie Trade CATALOGUR of Cencavian Plante and Wholeanlo Trade CATALOGUR of Cence
Seeda gratil and poat-Iree.

# sㅇN SEW SPINELESS G00SEBERRIES 

 spineesess, robust crowth, laree red fruit, extremely fertile, best quality.See "Gardeners' Chronicle" of July 27, 1895 (No. 448), pages 100 and 101.

COLOURED PLATE, COMPLETE HISTORY, PRICES, and every information, from WM. RUSHFORTH, HUNSLET, LEEDS AKD FROM THE ONLI PROPRIETORE,

LETELLIER \& SON, CAEN, FRANCE.

BOLD, BRIGHT; BEDDING BEGONIAS

BLOOMING BEAUTIFULLY AT BEXLEY HEATH. Avarded Three Gold Medals and upvards of Fifty other Highest Honours.


CALL and SEE this magnificent sight

Trains run from London Bridge and Cannon Street Stations to Bexley Heath (New Line). Or Omnibus from Woolwich.

## THOMAS S. WARE, <br> HALE FARM NURSERIES,

 TOTTENHAM, LONDON.
## "KENT, THE CARDEN OF ENGLAND.

CEORCE BUNYARD \& CO.
Beg to ask Bayers to consult their 1895
STRAWBERRY LIST
Before Ordering their Sapplies。 Now Ready.
Their Plant will be grand, both for Forctigg, in little pots, and as Runners.

Semd Orders and Einquiriks direct to-

## DUTCH FLOWER ROOTS  <br> JAMES VEITCH \& SONS <br> beg to announce they hate beckived their annuall supply of <br> HYACINTHS, NARCISSUS, TULIPS

 AND OTHER BULBS,And are pleased to say that they are in EXCEPTIONALLY FINE CONDITION.

## BULB CATALOGUE FOR 1895

Has been Posted to all their Customers; anyone not having received the same, a Duplicate Copy will be forwarded Post Free on application.

ROYAL EXOTIC NURSERY, KING'S ROAD, CHELSEA, S.W.

## A POPULAR ILLUSION DISPELLED!

Bayers have habitually paid 6d., 9d., and 1s. each for HYACINTHS, whereas our only price for BEST - NAMED VARIETIES, of equal quality, is $2 \frac{1}{2} d, \underset{\text { root. }}{\text { per }}$ Why is this? Beoause we are ourselves GROWERS, supplying CUSTOMERS at WHOLESALE PRICES, thereby saving them all MIDDLEMEN'S PROFITS. The Only House sapplying at these terms. all OUR bulbs ARE

## reliable.

 Michael RAINS \& CO, 34, MANSELL ST., ALDGATE, CITY, LONDON. And The Kurseries, Haarlem, Holland. Established 1856. GT CATALOGUES FREE UPON APPLICATION WRITE AT ONOR

## THE OLD NURSERIES, MAIDSTONE.

## BOULTON \& PAUL, NORWICH. CONSERVATORTES, VINERTES. PEACH PLANT. ORCHID, TOMATO, and CUCUMBER HOUSES.

GARDEN FRAMES in Every Variety. No. 73. SPAN-TOOF GARDEN FRAME


## GREENHOUSES FOR AMATEURS.

 No. $47 \mathrm{~A} .-10 \mathrm{ft}$, by 7 ft . ... ... \{ Painted \} 1010 No. 49A.-10 ft. by 8 ft . ....... and Glazed. BOILERS, TANL, VALVES, PTPES, and FITTINGS No. 75. MELON \& CUCUMBER FBAME.

NO. 77.-VIOLET FRAME, 6 feet by 4 feet. $\}$ OS. Similar to No. 75, with two lights.

# Milen's Bulbs 

ARE THE LARGEST,
BEST MATURED,
SPECIALLY HAND-PICKED BULBS, From the Finest Stocks grown in Holland.

## F.MILLER \& CO., <br> 267, Fulham Rd. London, S.W.

MILLER'S BULBS GIVE THE LARGEST LOR BULBS of FINEST QUALITY, at
F. MILLER AND CO., 267, Fulham Koad, London, s.W.

MILLER'S BULBS are in largely inoreased
MILLER'S CUSTOMERS send larger orders, Priends. confidently recommend MILLER'S BULB3 to their rend
DEFORE PURCHASING BULBS see 1 Miller's bulb Cataloguk, sent poet-free on
F. MILLER And CO., 207, Fulham Boad, London, 8.W.

GARDENERS WILL OBTAIN THE BEST and GIVE their RMPLOYERS GREATEST SATISFACTION by BUYING MILLEB'S BULBS.

## MILLER'S BULBS For FORCING.

EARLY WHITE ROMAN EYAOINTES. Strong flowering bulbs, 10s. 8 d . per 100; 18. 6d. per doz. Extra large bulbe, 14s. per $100 ; 28$. per dozo

EXHIBITION HYACINTHS.
Millers aselection of the grandest varieties.
Specially picked bulbe, Ss. 6d. par doz.

## LILIUM HARRISII.

We import only the true early-flowering Bermada Kaster Lily. Extra atrong buibe bs, 3 s. $6 d$. por doz

## LILIUM CANDIDUM.

Gigantic, solid, heary bulbs, for forcing ; twice the 15s. per $100: 2 \mathrm{~s} .3 \mathrm{~d}$. per doz.

FREESIA REFRACTA ALBA. Our bulbe always flower most freely. Strong cultivated bulbe , 3s, od. per 100 .
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Very large bulbs, $2 s$. 8 . per $100 ; 21 s$, per 1000 . Very large bulbs, 28. 6d. per 100 ; 21s. per 1000 .
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The three following are the best:-
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# ORCHIDS, 

AN IMPORTATION OF THE BEST EAST INDIAN SPECIES

Has just reached me in Fine Condition, anongst which are the following fine Orchids-

## AERIDES LAWRENCEE.

This epecie and A. Sanderianum rank ao the two most lovely of the family, the long drooping racemes are noted for their brightners of colour, ine size of flowers and delicious odour. Roceived First-clase Certificate, September 9, 1884.

## AERIDES SANDERIANUM.

"T. L." in the Gardeners' Chronicle (August 24, 1895), mays: prove, were it needed, that this genus is well worth taking pains with.

## The plants offered are in grand conditioa.

## VANDA SANDERIANA.

A very limited importation of this NOBLR ORCBID, which is admitted to be one of the finest in cultivation. Nearly all the plants were established before being shipped; Consequently,
there will be minimam of uncertain plante. Many of the plants are in pots, and root-action is evident in many cases. All the plante are well furnished with foliage.
A GIGANTIC SPECIMEN,
THE LARGEST IN EUROPE,
is among the importation of this Vanda. It is in fine health, and WILL BE ON BHOW st the Nureery during the ooming weok.

## VANDA LOWII. <br> A fow plants of this lovely Vande.

PHALENOPSIS SCHILLERIANA.
Some fice sound plants, practically established, and sure to

## CYPRIPEDIUM STONEII.

Collected by an experienced man, who saw many fine forms in flower.

## GRAMMATOPHYLLUM MEASURESIANUM.

In fine masses. This handsome Orchid should be extensively grown. It received : First-clasa Certificate in May, 1801.

## DENDROBIUM DEAREII.

A fine in
Dendrobe.
DENDROBIUM BICIBBUM.
Many of these plants were sesn in flower by the Olliector, who writes that there are exceptionally good varieties.

## AERIDES QUINQUEVOLNERUM. <br> DENDROBIUM UNDULATUM.

With tremendous peeudobulbs.
A FINE NEW PALM,
CYRTOSTACHYS LAGCA.
A. Plant of graceful hatit, with stems and leat potioles of bright red colotu; it fa known by the natives as
"THE SEALING-WAX PALM."
Six of these Pinnte have arrived, and are, of course, wall eatablished healthy Plants.

This is entirely NEW TO COMMERCE, and is RARE.

Fuller particulars and quotations from-

## P. WEATHERS,

 giverraill yugesz\},ISLEWORTH.
(35 minutes from Waterloo.)


SATURDAF. AUGUST 31. 189\%.

## CHISWICK

A VISIT to the Garden after the recent storms enabled as to jadge of its condi-tion-and what did we find? Cleanliness in every part, walks firm and well rolled, although the marks of the storm of Tharsday evening, Aug. 22, showed themselves in a saturated soil, and a little silt acoumulated at the margin of the turf; the lawns vividly green, showing plainly that if the mown grass was taken away, something was added in winter or spring to maintain the fertility of the soil. That was quite as it should be. In the glasshouses also were found capital orops of Grapes, and Fig-trees whioh had borne good orops, but were now going ont of fruit for the sesson.
But perhaps it will be better to take the glasshonses seriatim, beginning with the more modern one near the entrance to what may be oalled the reserve-garden. Last year, and for several previous years, we believe, this house, originally planted with Vines, ohiefly Musoat of Alexandria, has aocommodated during the summer months trisls of Tomatos, and enormous orops have been gathered enoh year, and sold to defray in part the expense of up-keep. Now, the Vines demand the whole of the space, and no more Tomatos are grown therein. This is the first year in which the Vines have carried s full crop. The number of the bunches is about 600 , and the weight 900 lb . ; and those who know the market prices for fine Muscats, can calculate their value when fally ripe, say in about a fortnight from the present time. The Vines, from reasons of economy, were trained on wires under the central part of the vinery, and a oane is being oarried from each Vine down the two slopes of the roof, so that every part of the roof will be atilized. Nothing could be better devised in oulture than the Vines in this house. The older corridor vinery held equally well-oropped Vines, but owing to the Vines being trained against the back wall, and upright glass front, one could not take in the whole crop at a glanoe. The colour and finish of the Grapes in this oase will be oapital.

In what some consider the white elephant of the Society-the big vinery-there is a welldistributed crop on the forty-four-year-old Vinen, not in any point differing in appearance from former years. To soocunt for the good oondition of these Vines, the border must have beon made with great judgment and a oareful seleotion of materials, or else the roots must have wandered into the adjeoent well-manured ground. Some of the gardeners, it being a showery day with dull skies, were employed in searohing for decnying berries, and easing the berries where orowded. It was all right here, bat it is a matter for regret that the resouroes of an experimental garden should be devoted to the oultivation of Grapes to be sold as in a commercial undertaking; but having the vinery, perhaps no
better ase oan be found for it than to produce Grapes. At any rate, it is money-prodacing, and that may be a suffioient exouse, although experimentally it has now little value.
Having inspected the state of the Vineries, always considered the oruoial point in a gardener's management, and a test of his abilities, we found everything looking as well if not better than in some former years; other houses were visited, viz, the Peaoh-house in the inner quadrangle. Here the trees had furnished an early crop of fruit, and we saw nothing bat healthy vigorous plants whioh were being gradually matured by sun and air. Standing outside was a lot of young Peaches, Neotarines, Plams, \&o., whioh having done their work for the season, were being ripened off, the house they had stood in being furnished with Tomato plants with fruit approaohing ripeness. Most accommodating plant this-if you do not know what to do to fill the house, put some Tomato plants in it; and if you cannot consume the fruits, you can always find purchasers for them. There is no waste of gard ${ }^{\circ}$ n appliances and oonveniences at Chiswick, but every house is put to some kind of aseful parpose.
In one house only American varieties of the Tomato are growing, and but few differences were noted between these and those nanally grown in English gardens. The house in which these varietien are placed is a Memrn. Skinner, Board \& Co.' patent, with a curvilinear roof of amall apan, galvanised iron ribs fixed at very wide distances apart, the glass panes resting on strained wiren, and secured by metal clips. It reemed to need faller ventilation when the doors were cloued; but it suits the Tomato, which is a heat and run-loving plant.
The houses net apart for flowering planta wers the Canns-house-well furnished with thene beactifal, combined flower-foliage subjects. They were quite amall stuff when received in the apring, and bave had to apend their energiea in making leaver and roota, and, a a conaequence, there is not quite so much flower on them as older roots would have thrown. The selection is a choice one, and well worth an inapection. The side bencher are furnithed with varieties of Pelargonium peltatum (Ivyleaf), now past their beat, but which have been particularly beautiful this meason.
In another house was found a collection of pro-fusely-bloomed Fachsias, including good new varietien and old favourites. Another honee containa Balame, Celosias, Cockucombs, and Bouvardias; some pits are filled with zonal Pelargoniams for flowering in the winter, benides a quantity of miscellaneous plants of small value, for diatribution amongut the fellows -much of it dear as a gift. Its propagation and culture seems to take up a good deal of time and labour which might be more unefally employed. It is the fly in the amber.
Let ne now turn to the fruit treen on the walls. To ne, thene have always neemed to be the weak point at Chiswick, and eepecially wat this the caes daring the years of mivery, when the resourcos of the Society were expended in that children's playground at Kenuington Gore. The trees were then starved of the needfal manure and loam, althoagh the superintendent was too good a gardener to neglect the cuatomary vinter and ammer pruning. Since better times have set in, in the Society's affairs, the trees have improved, and excellent crops of Plums, Peaches, and Nectarines; a fair one in the majority of casen of Pearn, and some very heary crope on certain varietios that uanally can be depended upon to crop well, viz,, Williams' Bon Chrósien, Souvenir du Congrèt, Loaise Bonne, Madame Treyve, and Bellimime d'Hiver.

The Apple crop generally in a henvy one, especially on the lemeer praved standard and half-atandard trees, and on the restricted bushes on Donein and Paradius atocka. It is needleas to opecify varieties where nearly all have cropped well -atill, mention
must be made of a row of treen of Blenheim Orange Pippia, planted twenty yeare ago, and worked on every known kind of atock, which have a fall crop for the firat time. There is a fact worth knowing in regard to this variety, viz., that no kind of atock will hasten its coming into bearing. The other grand crop is that of Cox's Orange Pippin, which was never finer thas this year. The aged pyramidal Peara are, in numerous instancea, bearing very well ; and of Plame, capital crops of Pond's Seedling were remarked on standard trees. In fact, it is a record year for hardy frait at Chinwick.

There are extensive trials of Cabbagen, Lettaces, Tarnips, Runner and dwarf Kidney Beans, Potator, Endiven, Spinachen, Sweet Peas, Aster: Phloxes, bedding Begonias, inclading the mallflowered effective elegans type; of Dahlian of the no-called "Cactus" forms supplied by the larger growera.
To give the reader an idea of the extensive character of these trials, it may be mentioned that about 500 varieties of Phlox were planted from Eaglish, French, and German growers, the height, colours, time of beginning to bloom, being duly noted. Of Tarnips there are 37 varieties ; Spinach, 20; Cabbage, 76 ; Lettucen, 39; Beana, 74 ; Peas, new and old, 59; Potatoy, 70. The amount of clerical labour entailed in recording all the more essential points in connection with these trials is very great, especially as every report has to be written out three times. One rabs one's ejes on hearing this, and amk whether copying-presses have been invented. The writing of label for seed-beds and plantingu takes up a great amount of time. Thene trials, so far as they go, benefit the purchaser, or at least they are instituted with that intent; but inatead of being published in a form eacily accensible to the owners or cultivators of gardens, they are published long after date in the Societry's Journal, which appeara at ancertain intervale; hence they loae the merit of opportuneness, and become, as a consequence, of relatively mall value.
The out-of-doors floral decoration are well worthy of notice at the present time. They consist chiefly of a serien of bedn, circlen, and parallelograma, of various dimensions, arranged on each side of the long walk which leade to the great vinery. There were beds planted with old stock-plants of Fachsias, flowering abundantly; beds of Fuchsia fulgen, an old inhabitant of our greenhouse, but seldom employed out of doors, although in the warmer parts of the country it grows well and flowerw charmingly.
Begonias, both taberous and other, are planted in numbers, wometimes one variety being aned in a bed, and in other caven several of them are grown together for the make of readily estimating their effecte as bedders, tenting the comparative height of the plants, and various other points which it may be desirable to ancertain. There are bede of the glowing reds, crimsons, sec., of the large-flowered tuberous-rooted rection obtained from the best sources. Beds of Begonia semperforens in red, pink, and white, and very clearly these varieties showed their value as bedders; the varietien, Dacheus of Edinbargh, pink, and Reading Snowflake, white, were admirable. In the care of thene remperforens varieties, the blowsoms are manll, very numerous, and obtained from all parts of the plant, and being of a aniform colour there is no dall aide of the petaln to be seen in dull weather, at is the cane with the large-flowered Begonias. Old planty of Boavardia in variety are turned to good account, being planted ont in mixtures of other plants. They were manees of
flower. Cassia corymbos planted in circulsr beds has a pretty effect, the amoant of bloom on them being considerable. The asme may be said of Plambago capensia, the plents of which are covered with their light blue flowern, wo different in tint from the
other occupante of flower-beds.
It was remarked what a pretty edging plant in Sedum Eweraii, when covered with its namerous dull pink-coloured flowera, Canna indica, in the newer tarieties, was noted in flower; bat, like thone
well this reason. A bed or two of Zinnia eleprots pumila, consisting of a few distinct-coloured varitinn about $\frac{1}{3}$ foot in height were noted. This strain in decidedly better than the usual lanky one neen in
gardena, yet not so dwarf as Zinnia Hagema gardens, yet not so dwarf as Zinnia Haagome
Other beds consisted of Asters in variety, vinglos flowered Petunias, and yellow Margaeritea,
The beds of Tea and Noisette Roses were afiote ing a quantity of bloom, although these were bi very mall plants when put out at a late part of the spring. It was eany to see what the planter were liu before the storm of Thuraday had dashed the Alowern, for a time at least.
It is said, we beliere, that the cost of keeping n Chiswick is out of proportion to the resalta obtion, but that is a point very difficult to gauge, weim the multitude of plants dealt with, and the fe reaching natare of the results of the triale and methods of culture, when at length these have been dribbled out to the horticaltaral pablic.
No comparison institated with a private gurim is possible, except perhaps in such elementery matter: as digging, mowing, tree-nailing, and pruning, and the like mattera, which are the nmein all gardens. At Chiswick, the cost, time and hobour involved in the distribation of plants to the Fellom is very considerable, all manare muat be parchued, coals and coke bought at town prices, water apecillly paid for, raten and taxea are heavy, and labour mon highly paid than in country placen.
In making comparison between the cost of cine ducting Chiswick and a country entablinhmeth, thene are points which ought to receive due consideration. Who but the Saperintendent himulf nud his coadjatore have any notion of the laboar of recond ing the trials above-mentioned? moreover, there in the lons of labour from the garden which every mestigy at the Drill Hall entails; the gathering and patiung up of fruit, flowere, and plantu, for which thers if
nothing to ahow. The Saperiatendent has aloo to y as cicerone to visitorn, foreign and native, and eversone is courteously received, as should be the am, and shown round. Every time an individat il taken away from gardening operations proper, then is a distinct lons to the garden in money and tim, and this cannot but add to the expenves at th present junctare.

## New or Noteworthy Plants,

## CHLOROCODON WHITEI.*

To M. Naudin of Antibes we are indebted for pelo mens of this greenhoase climber (see fig. 48, p. 2 24s), It is an Asclepiad with olender, twining, cylindrimel branches. Leaves petiolate, opposite at diatant interp vals. Petiolen about 3 cent. ( 1 inch) long, alighty puberulous, channelled on the upper anfface. Nindala forming a band connecting the base of the tw petioles, and dividing into several anequal linas blunt lobes. Laaf-blades about 15 to 18 ceattoby 10 to 12 cent. (eny $6+7+3-4$ inches), neratly glabrous, rounded at the bace, oblong entire, startly and abruptly accminate, venation arcaate retien labe areole broadish, irregular, quarish, or oblank Upper surface of the mid-rib provided ness the base with a few linear, lanceolate, memornt deciduoun scales. Inflorencence axillary, shortaf find the leaver, cymosely branched, many-ilom fith pedicels spresding dichotomously, branched lill low minute bracteoles, ultimate pedicele fo milu cals rather horter than the expanded fower. of five apreading, ovate acate, shortiy actis 2 D green segments aboat 5 mill. long. Coroma ${ }^{2}$ im. 25 mill. diameter of five orate oblong, eleby bricate segments free nearly to the becoming buld externally rich violet within, becoming ith the
Corona of five fleshy acalen alternatiog mith Corona of five fleshy acalen alternating arn ablaty
petale, each three-lobed, Iateral lobes abort patale, each three-lobed, lateral lobess ar long sh the
obtuase, median lobe prolonged, nearly ac * Chlorocodon Whitei, J. D. Hook., Botaniall Moythe t. 5898.
petals, deltoid acuminate. Filaments broad, waite, membranoun, infolded over the ovary, and adhering to the pentagonal diac-like tigma. Pollen-mases linear, club-ahaped, glandular at the end. Pollen granular. Ovary two-lobed, with a short atyle and large disc-shaped tigma.

We append a translation of Mr. Naudin's letter:"It is now some yeara ago that you sent me nome need of Chlorocodon Whitei. I duly raised them, one plant, growing on a wall, has become very tall, is many feet in height, and at the present time is covered with flowern and will probably prodace need. The heat just now in torrid, and the annahine of Antibes rivala that of Natal or the Cape of Good Hope. I thought that you would be interested in meeing a apecimen of my plant, and send you a piece of it, which I hope will arrive in a fresh condition. In the Botanical Magazine, t. 5898, Chlorocodon in flgared. The flower there are rather different in coloration to those on oar plant, which in atroparpareons, but without the yellow at the tip of the petals. Calorocodon Whitei is a fine decorative plant, is worth cultivating an a climber in any Orange-growing district auch an France and North Africa. Thas, it growe perfectly at Oran, whither I some time ago ment some seed to a plant-lover fond of acclimatising plants. Ch. Naudin."

## Polfpoditm (Phegopteris) Teinidadensis, Jenm.n sp

Stipiten, 6 to 9 inches long, void of vesture, alightly channelled, brownish-green; rachis similar; fronda pinnate, chartaceous, pale green, naked, 1 to 2 feet long, I foot or over wide, not reduced at the base and very alightly at the apex, terminating in a aimple linear-ligulate unlobed pinna, conform to the lateral ones; pinnw apreading horizontally, almost mensile linear-ligulate, 5 to 6 lines, width 9 inches long, finely serrato-acuminate, the base truncate, not widened, alightly contracted in the lower onem, the marging uniformly throughout sharply dentate (or bi-tridentate) ; veins copions, simple, clone, grouped, running to the margin, terminating in the serrations; nori copious, medial on the veing, forming two or three rown, no involucre observable.-Trinidad; communicated by Mr. Hart.
At first sight this might be mistaken for Polypodium flavo-punctatum, Kaulf. (Aapidiam rotandatum, Willd.), a plant very common in Trinidad, but which on comparison is seen to be very distinct. The pinnm are narrower in this, they are uniformly free at the base, alightly narrowed there, with a terminal one to the frond, aimple, only serrated, just like the lateral ones, and the translucent spots are quite absent ; whereas $P$. flavo-punctatum has pinnse twice or thrice as broad, with copious translacent spots, the upper pinna roundly lobed along the margins, freely translucently apotted, the apper twothirds broadly adnate and decurrent on the rachis, pasing gradually into the lobed aper of the frond, there bsing no distinct terminal pinna. Plumier's figure, Fil. $\mathbf{t} .38$, is a very good figure of P. flavopunctatam, and show clearly how diatinct thene two species are. G. ©. Jenman, Demerana, July 30.

## FOOD REQUIREMENTS OH THE TOMAT( CROP.

The Tomatos of present caltivation are all referred to two epecien-Lycopersicum enculentum, ambracing the great mase of varieties; and L. pimpinellifolium, the Currant Tomato. The former has two main typer, var. cerasiformis, the Cherry Tomato, and var, vulgare, embracing the ordinary market Tomato.
A moderate eatimate of the yield of ripe market Tomato per acre when grown out-of-doors in the Uaited States is 10 ton ; with proper management, 15 tons per acre are often secured. If planted 4 feet apart each way, there will be about 2700 vines to the acre, weighing, after the lat picking, somewhere about 8700 lb .
The roote, according to a single obwervation, will weigh about 1350 lb . Taking 10 tonas an average
yield, and "calculating on the basia of the figurea just given, a Tomato crop takee from the woil, in pound per acre:-

|  | In Fruit. | In Vines. | In Roots. | Total. |
| :---: | :---: | :---: | :---: | :---: |
| Nitrogen | ${ }_{28}^{2 b}$ | ${ }_{28}^{1 b_{0}}$ | $\mathrm{Ib}_{3}$ | $\mathrm{lb}$ |
| Phoophoric acid | 11 | 6 | 1 | 18 |
| Potash ... ... | 53 | 4 | 4 | 101 |

Dr. E. H. Jenkins, of the Connecticat Experimental Station in the American Agriculturist of May last, reckona that one-half of what is taken up by the plante from the soil is returned to it again in the vines and roots. That is, taking it for granted that these are returned to the land an manare. These fact furnish a general guide to the proper fertilisation of Tomatos. On the one hand, the aoil mast be expected to sapply a part of the crop's requiremente from it inherent fertility; on the other hand, by no means all of the coluble fertilizers applied will be available to the crop for which it in directly used. It is quite doubtful if more than a half or two-third of the applied fertiliser is taken up by the crop for which it is immediately employed. Lawes and Gilbert in their experiments at Rothamsted, reckon only about 40 per cent. of the manure applied as being recovered in the increase of crop the firnt year of ite application.

Owing to the immense demand during recent years for the Tomato an a market vegetable, the chemical composition of the plant has been thoroughly investigated. It appears that the Tomato is not an exhauating erop an compared with aeveral other garden products, always provided the haulm or it equivalent in manure is returned to the soil.

The percentage composition of ripe Tomato and of the vine after picking, calculated from all American analynev, according to Dr. E. H. Jenkinn, is given below:-

|  |  |  | Ripe Tomatos | Tomato Vines. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Per cent. |  |
| Water... ... | ** | $\ldots$ | 94.75 | 836 |
| Organic matter | ..0 | .-. | 480 | 13.40 |
| Mineral matter | .. | ..0 | $0 \cdot 45$ | 3.00 |
| Nitrogen ... | "00 | ... | 0.139 | 0.321 |
| Phosphoric acid | .0 | $\ldots$ | $0-057$ | 0.066 |
| Potash ... | ... | .. | 0.283 | $0 \cdot 69$ |

A asfe rule is in the firat plece to make sare of an excean of available potash in the soil by applying a potash manure liberally, and thil for two reasons. Firat, because the crop requires almost twice as much potash as any other ingredient; and, secondly, because nitrogen, the most expensive element of plant-food, can only have its full effect when available potah and phosphate are present in excess in the soil. Moreover, any excens of potash over the crop requirement will not waste from the soil by drainage, but will be retained in combination by the soil for use in future crops. The Rothameted experiment show that when potash is deficient in the woil, the growing plant, of whatever deacription it may be, becomes mach more senaitive to adverse conditions of aoil or reason, and is more readily attacked by dineane, enpecially mildew and other fangoid growth.

Wood-ashes contain a large percentage of potash, and where obtainable will be found an excellent manure for Tomatos, becanse not only do they correct any acidity in the soil, but they favour nitrification, and they apply carbonate of lime, of which a Tomato crop require at leant 50 lb . per acre. A small amount of available phoaphate will in most case be sufficient for a succensful Tomato crop.

Having made aure of an excean of lime, phosphater, and potash salts in the soil, nitrogen should be used freely, but economically ; a manll quantity given Irequently is mach better than a large dose applied sll at once. Whether Tomato are grown for retail market or otherwiee, it in very desirable to get as
early maturity at posable. Applications of aoluble formn of nitrogen, and particularly of nitrates, weem to increase the gield of frait without retarding maturation, and even hasten it provided there is sufficient heat at command. In various trials it has been found that the are of some quickly acting form of organic nitrogen with the more voluble ammonia or nitrate is anfest.
The New Jerwey Horticultural Station, as the reault of five years' exact experimenta, proposes the following general method of manuring for the Tomato. 1. Where land has been heavily fertilised or manured for the previous crop, apply evenly over the soil from 200 to 300 lb . of nitrate of soda per acre, one-half at time of eetting the plants, and the remainder from three to four week later. 2. Where the land is light and aandy, and has not been heavily manared, apply broadcaut, and harrow into the soil before etting the plants 500 lb . per acre of a mixture made up of two parta of auperphosphate, and one part of mariate of potash, and 150 lb . of nitrate of soda.
It mat be remombered that the foregoing suggestions are for Tomato crope grown out-of-doors, in a much warmer and more annny clime than our own ; they are given, therefore, not by any means as rules for Eaglish gardeners to follow, but as a possible help to the grower who ought to know better than any one elee what his noil needs, and in what it is relatively deficient. J.J. Willis, Harpenden.

## The Herbaceous Border.

## PENTSTEMON BARBATUS.

In point of besuty this plant and its varieties are some of the beat hardy perennials. The tall apiken of flowers of a rich ahade of acarlet are very effective when the planta are grouped together in a bed or border, and they continue flowering profusely for a long time. Indeed, it not infrequently blooms in early summer and in the autumn, and is therefore a good anbject for the flower garden. This remark applies to the beat forme of the plant, and not to the variously dingy-coloured varieties nometimes aeen in gardens. One of the handsomest form is P. barbatus Torreyi, a North American plant, with spikes of acarlet flowers, 4 feet high. Another fine form is $P$. b. antwerpensis, nomewhat taller than the former, also possensing acarlet-coloured bloswoms. A charming bed can be made of these plants and the white-flowered Tigridia grandifora, with a band of golden Viola for an edging, planting the latter amongat the Pentstemons in February or March. Theme Pentetemons are readily increased by divicion early in the year, or by cuttinga in the autumn; the former will generally be afficient for all ordinary uses, and the division aoon make atrong plants. Where large number of plant is needed, the young thoots at the base may be partly covered with soil, into which roote will quickly push. By doing this in the early autumn the plant will be well rooted for dirision the ensaing February; these would flower in the ummer following.

Spiret filifendula, fi-pla
In thia plant we have a perennial of eary culture, dwarf habit, combined with freedom in flowering, and neatness of growth. From a compact cuthion of Fern-like foliage isue a number of pure white flowers, arranged in corymbs, and they continue to push up for aeveral week in succeanion. The plant is well maited for growing in masees where an early summer dieplay is the aim. Though not usually emplojed as a pot-plant, it is neverthelese a very suitable subject, and it may be partly forced into bloom if necessary. Plants required for the latter purpose should, however, be potted-up in Augut or September of the preceding year. In common with other species of Spirea, it should be planted in a moisture-holding soil, and though succeeding fairly well in light soils in sunny spote, it is never quite satisfactory in them. The plant is increased by division performed in the autuma or apring

Plant it firmly in not over-large pieces, and unlest in a moist apot, divide every two years, to maintsin the atock of plante in full vigour.

## Spirifa venusta.

This is a beatifal plant for a moist moil, in which it alone will grow atisfactorily. If the soil of the garden is not naturally moist, this Spires should be planted in rather heavg aoil in a sbady apot. In a bogey situation it growa from 4 to 5 feet higb, and produces very large cymes of bright-coloured flowern, bat is of slower growth than most Spireas. Propagation is by division and seed, but for the former a large specimen is required, and by the latter method lame of the seedlings may be of little value, atill some bright forme may perchance be obtained. These seedlings should be planted, if posible, at the side of a stream or lake, where they woald make quick progrese, and at the same time economise laboar. In anch a position even the inferior varietiea would be denirable planta. J.

The Rosary.
TWO MODES OF MULCHING ROSES.
ThBRE are thone who would object to apply the term" mulch" to any wet anbatance, anch an sewage, manare-water, pond-mud, \&c.; the word uaually carrying the meaning of a coat of some loose, light, porous material placed on the aurface to arrest lose of moiture by evaporation, and heat by radiation a well. Bat in a larger wence we may malch with manare-water as well as litter. Even the residuum of the liquid manares or sewage may form in themnelves, or be made to acquire, mont of the physical properties of mulches through allowing them to accamalate on the surface, or much better still, loomening them up and mixing them with the earth benesth through frequent hoeing. In ite modent meaning, anything applied or done to the aurface with a view of adding to or holding more fast the moisture and food in, and keeping the heat or drought out, is a mulch, the more porous the more potent the mulch. And the efficacy of the liquid mulehes is doubled by atirring the surface with the hoe or acarifier, as soon as the aurface is sufficiently dry to allow treading upon it. I have been so fortunate as to have seen both these methods of mulching in active operation in this centre of the Rose induatry in the coarse of the past few weeks. If asked to asy which was best, I should prefer to answer, both. Few have uaced manare-water of all sorts-house and yard alops sewage-more for Rosep, than I have done, for many years in different counties with various soils, and such prompt-acting surface-mulches have been my chief mimulant for Ronen. There hes been, I trust, not a little mound science, asauredly mach useful nentiment, as well an auccess in thus converting and transferring sach dangerous anbatances into lovely Roses. Hence, on looking in at Mearr. Prior \& Sons' fow week ago, and finding them at the sewage again, I felt something like an old hunter on which I was mounted by the stud-groom in my younger daya by mintike, and which compelled me to follow the hounde for my first and lant ride almost at the head of the hounds, I sniffed the sewage from afar, and have seen and felt-mmelt-its results in the quality -odourr, and prizes received for thene sewaged Roues aiace I maw them get their last feast of savouries for the season a few weeks aince.
The cheapest and perhaps the best of all dry mulches is also in fall swing at Colchester, gangu of men are employed to maintain it in full efficiency. Rosarians have no faith in the robber malches of weeds, so popular among distressed cultivators of various worts. Such mulches live for themeelven alone, making poor sorts poorer, dry soils drier, reredacing the diet which should go to feed aeefal crops into amaller and yet maller returns. Whereas hy keeping the hoe and the searifier in active motion rsber-weede diamppear. The mtrength, mointare and food in the will are huebanded, the aurface proteeted
from cracking andirending, and fresh supplies of food and moistare brought up from lower deptha through uustaining the potent force of capillary attraction. At Colchester and other places the practical result of keeping a loose surface may be seen in ten of thousands of Rones that have withstood the drought without any other help from the cultivator, which look so vigorous and beantiful, as if they had all that the most ambitious Rose could desire.
Strawberries in many districts where the prodace is a record one this year teach the zame lesson. Not a few of the very finest cropn have had no water. But as a penny saved is a penny got-or more, so is every drop saved, conserved throagh surface mulchen, a drop or more saved. Fortunately for the Strawberry crops and plants it is not at all hard to maleh to keep the frait clean, and auch mulches, whether of litter, fibre, mose, atraw, chaff, tell later, and keep the roots cool and moist as well as the fruits clean-thas paying the caltivator compound interest on the labour and money expended on mulches. D. T. Fish.

## ALEXANDRA PARK, MANCHESTER.

This park is situated on the south side of Manchester, and is much freer from amoke and the noxious vapours which the moke canses, than any of the other parks sarrounded by the city. It is much more extensive, too, covering an area of 60 acres, which opens up scope for landecape gardening denign. In this reapect it seems to vie with mont othera in having apacions promenades and drives, cricket, football, and lawn-tennis compartments, surrounded on the margins with plantations of trees and ahrabu, which, when clothed with foliage, completely shat out the rather handsome villa tenements to be neen on two sides of the square. There are, in addition, avenues of trees, with alternate green Hollies between, to brighten up a little the winter aopect; and then the crowds of flowering shrabs, commingled with, and confronting the deciduous trees, together with the patches of annaals that give forth their flowers in summer and autumn, make altogether a very pretty picture.
A apaciour entrance gate, with auitable lodgen, has been erected, and to the right you face an avenue of Limes, something sbout 700 yards long, verging upon a apacions artificial lake, and right in front of you is a raised terrace in which there is ample acope to practice in no end of designs of aummer and carpet bedding. The promenade between this is a apacioas one, asphalted, dressed and arfaced to please the eye, and is of considerable breadtb, to that treading on the grass is teldom, if ever, resorted to. What struck me particularly was the capital order maintained, showing no stint of want of keeping, and the eje liner, whether straight or on the terrace promenade, or of sweeping carvature, as alongside the walke and driven, were anexceptionally pleasing.
The principal trees doing bent here were the Limes, 2 tree which you will hardly see in 2 decent atate of bealth in any of the other parke; the Aoh, of which there is $\approx$ fine avenue here, but being planted too near the Limes, they are andly encroaching one on the other, and thum apoiling both. The Syeamore in doing fairly well, but is subject to rast in its early stages of growth. Other trees, such as the Thorns of sorts, particularly the plain-leaved Thorn, is as good as can be. The Rowana make capital companion low-growing trees, and are now covered with multitudes of their scarlet berries-a great temptation to youngsters, as well as blackbirds and thrushes ; meantime they are loaded, and give a brilliancy mont desirable indeed to the mixed border,
Another capital fellow-tree to the two previouslynamed families is the Service-tree, only in summer its leaves get blackened with moke; in apring, there is no better wind tree, in respect of showing its hoary underneath warface. Young's Weeping Silver Lime is in quantity, and a most beautifal tree it is for individualising in a park; ite great leaven, twice the dimentions of thote of the type, are alno white underneath, and look nicely in the distance
ander the influence of a breeze. Weeping A Ah alto do aplendidly-indeed, all thene pinnated-leaved treen and shrabs help to cast a dash in a sombre landecape
Foremost among trees of a suffruticone character, not often seen aboat towne, is the Samach (Rhu Coriaria). It grand pinnated leaves, like grou Fern fronds, atand out in relief, and how aplendidly it does here planted out among ash-gray rocks! If shoots out in all directions, coming up from the running roots as they meander among the atones, If is much ased, commercially-apeaking, in the dyoing industry; its leaves are collected when growing, then dried and ground. The Sicilian Samach is the bett for dyeing, containing about 20 per cent. of tanner's mation, It nhoots far freer even than Berberis aquifolium, xel a most beautiful patch it makes allowed to take it nataral courae from the main stem. The S apprintendent deposits lots of plants, and nets them dom throughout the mixed tree borders. Robinia pund. Acacia is also doing well in standard. Rhama Frangula, although it requires support, makes a good sabject, becaune of the yellowish-green of ita lesm contrasting well with other decidnoas treen. The Cstalps is doing in sheltered positions, and wo is the Salisbaria adiantifolia, with ite deeply-cut, irrealiaroutlined leaves. Those purple-leaved treef, nechu the Beech and the Plum, do not stand out oner mental throughout the year, and have in early autamn a sombre, dying aspect.
The shrubs that do best are the Rhododendron, firat and foremost among them for border work in Canningham's White. It is as hardy as Couch, and in bristling with buds. All the Ponticama, and may of the earlier pushing hybride have anffered from tho sharp frosts of mid June. The leaves are as if bronnd in the middle, green round the margin-it in jut possible many of them may die off as the vewon ripens growthe up. Wherever they have been planted in exposed positions, the wind and the fork together have played and havoc, always barring Curningham's White. Andromeda floribanda it als indiapenasble town plant, and so is Skimmis oblas Really these two plante seem to defy amoke and frow down towards zero-the lowest reading here was 20 and $3^{\circ}$ of frost; of course, those Azaless which brighten borders with their flowers in apring wad their leaves in autamn, are largely grown, and mall they do. Berberis japonica is worth making ' special note of, it is good looking to begin with and is much hardier than the common Aquifolium.
These mixed borders are composed largely with unch ornamental plants as Snapdragons, Centarres, Sweet Sultan, the Summer-flowering Caryanithemum, the Shirley and Iceland Poppies. The latur are by far the most useful, as they are not al lagbcione as the Shirley, and they keep longer when aith The Helianthun in meveral varieties are usefal, tall wart plants, the aewer forms of them barting outh and flowering freely, although their flowers are ant so large. The largeat one is a capital fellow for tio Japanese Auratum Lily. Tobacco-plante, too, unthe aplendid farnishing for mixed borders, becaute of their elegant habit, and large light-green leaver. 0 ow of the most atriking beds in a dotached ponition os the grasay parterre was one of seedling Antirntio nume. Nothing wes more captivating in the parkin becanse of the great variety of coloure, challengime the rainbow in fact, and the dwarfness and come. pactness of the strain. Pentatemons, too, dealt in this way were effective. Carnations, singular to say, were nearly all killed of last winter; frell relays have been planted. Clematio Jackmanin too, in very prolific of flowers, and makes fine con trasting plante to others; it is always beantifal whin the green grass, and it is green and lovely in wimgo park, too, wo clonely is it clipped with the mom thin machine. The Rosary has been an access then season; the plante do well in the preerm enclosare.
The summer bedding is one blaze. Ose mild condemn it as too formal, but when you nee an variety which we have deacribed sbove, there is ill at for this class of ornamental gardening. If will do to abandon it altogether; the people sboun the
delight in a maes of gandy colours, and then
informed of them look apon gardenere who do not make a thow of this kind in the parka for which they are practically paying the up-keep, at unfit for their work. The great breadth of beautifal greenery as a groundwork here show: up the deaigns to great advantage. It might be aa well to give the names of a few plante and varieties that were doing waperbly -Cryetal Palace Gem Pelargonium was particularly effective and free in habit; Venuvius atill ranke high among bedding carlets; Mre. Fenn is of a fine
is telling among other subjects. Lobelise in wet malest seacont, are apt to run to growth without producing flowers. The velected one here, named Royal Blue, is a gem for ita indigo tinta and for its pro fasion of flowers, this mixed with and surrounded by Centaurea ragusina, Kept the eye on it-the ioftness of the grey and the brilliancy of the blue being quite eye-pleasing. A most effective combination here is the usual Calceolaria and Pelargonium, then a great broad band in front of Gageana splenden variegata
planted out. This abow what a labour proper flowergardening require.

Bat carpet bedding, to do it well, requiren ten times more work, although the material may not generally require the mame winter "coddling." There are some pretty bite, chielly ranged along the promeande, of this sort of work, and the weaving of it together involven akill to begin with, and time to finish. It does not do to make it too quat. The prettiest bit of bedding was where the thistle-looking Chamxpence diacantha was dotted down on a groundwork of golden Lyaimachia, and varied Sedume, with dot plant of Echeveria Peacockii. The Gnaphaliam lanatum, the deep olive-green Herniaria glabra, various Meembryanthemume, Stachys lanata, and the Golden Thyme, were all in use in more or lest designs, and these thing arreat the atiention of the viaitors. If anything, the bed were tso quat; some relief would have been desirable, particularly in the centre of the various designs, with Agaris, Aralias, Centaureas, or sach-like individuals. As it was, it was one sheet of colour from end to end of a parterre quite 500 yard long, bat fortanately the bed were broken in their outline, relieving geometrical outline formality.

Tae bowling-green is largely taken advantage of, and is nicely adorned with sloping banks, their tipa filled with miacellaneous flowering plants, and there are naitable band-atands and abelters, and gymaaticgrounds for boys and girls apart, the whole ander the auperintendence of Mr. Henry Crosm, and in firatrate order of keep. Viator.

## PANDANUS VANDERMEERSCHII.

The accompanying illustration (fig. 46) represent. a plant of the Screw Pine, Pandanus Vandermeerachii, in frait, growing in the lalm stove bere. It in 13 feet high, with two side-branchen each extending to about 8 feet from the main stem. The frait are borne on the side-branchen, and are of a trigono-globone shape, 0 iachen long and 8 inches in diameter at the base. The fruit firat made ita appearance in July, 1894, and as yet shows no signs of ripening. $A s I$ am led to believe that the fruiting of the Pandanus in this country is very rare, perhap this note may prove of interent to your readert. Thos. Wilson, Glamis Cautle Gardens.

## WISTARIAS.

The genua Wintaria is one of a great number showing the close relationship that exista between the flora of North America and that of Northern Ania. Of the species known, one come from the United States, and the rest from China and Japan. The generic name (sometimes erroneously pelt Winteria) wa given in honour of Cappar Wistar, an American acientint, who flourimed about one hundred years ago. The specie vary in habit, from shubs of comparatively dwarf atatare, to atrong-growing climbers large enough to envelop big tree. climber ever introduced has served its purpose better than the common Wistaria, the flower being unsurpansed either in beauty or abundance, and the plant itself being of exceptionally vigorous growth, and quite bardy. It is undoubtedly the fineat of all the Wistarias; bat the other species Hower at a different seamon, and they have afficient merit to make it worth while to pase the genus in review, eopecially as they are but little known in gardena. Botaniat differ in their estimaten of the number of species in the geaur, but there are at least threechinensis, maltijuga, and fratescens-whose idertity is well entablished, although Mr. Hemsley places multijaga ander chinensis. Two othern-brachybotrys and japonica-are figured by Siebold in hie Fhora of Japam, but they are scarcely known in garden, and the latter is now looked opon an a Milletia.
W. chinensis.-This fine pecies was introduced from China abou: the year 1816. There is no hardg climber in English gardena that attain to olarge a wizo at this, specimen being mot ancommon whote
roseate bue; and Henri Jacoby is a large brilliantruis; Master Cariatinp, a telling pint; Violet Hill, aleo, is a fine nosegay Giranium. Among Golden Bronz, there was nothing more-if, indeed, so effective as Mra. Quilter; the habit is dense, and the leaf is the perfection of form, whilst the coloaring beat mont of the older ones. Marshal MacMahon is aneffective bronze. There were many other, but these were the cream of the group.

Among Violap, the bet atanding of the violet colour is undoubtedly Blue Perfection. Moat Violas in dry weather curl up their flowers; thim one in leate affected in that way, and ite colcu:
mixed with the prolific-flowered blue Lobelia and edged with Echeveria. The orange flowers in day time reating in the green and white leaves of the plant, and the blue and the other primary colour told exceedingly well withont being out of colcur and in bad taste. Yellow is an everpleasing coloar, and should be sparingly uaed in all flower garden combinations, the denigner here had evidently his eye apon that point in planniag his arrangements. A few beds of Harrison's Musk atet among parple leafage was highly effective-it would have been more so but the Irealne whe not up in colour, neither were the Alternanthera*, which are lean even than when
branchen have a spread of 200 feet to 300 feet. Its rigour is equalled by it floriferonanem, and a fine specimen in flower is one of the most beatiful fioral picturea an Englinh garden can show in early summer. The leaves are of a pale green colour, and conaist of nine or more leafletm, which have a few flattened hairs scattered over the upper arface, but confined on the lower aide to the veinn. The flowers are borne in racemen, sometimes conniderably over 1 foot long; they are large, papilionaceous, and of a pale bluish-purple, fading off to almont white in parts of the flower. Grown in tubs as a standard, this Wiataria may be ased for spring-forcing in the greenhouse, praning back each year after flowering. Oat-of-doors it may be used in a variety of ways. It is admirably adapted for covering walls, pergolas, arbours, \&c., and may aleo be planted so at to climb over treen that can be spared for the purpone. There are now neveral varietien of thir plant in cultivation. Var. flore-pleno has double flowers; alba is white, and is also represented by a doableflowered form; var. macrobotrya has flowert of a paler shade than the typical form, but its chief dintinction in in the long racemen. There in also a form with variegated leaves; bat, with the exception of the doable-flowered variety, which remains longer in bloom, the typical old plant is the beat. The white-flowered varietie are beautiful, but do not flower so freely.
W. multijuga. - In the Index Kewensis, this plant is referred to an W. ninensis, but from the point of view of horticulture, there can be no doubt as to the desirability of keeping ap the present name-indeed, this is done in the recently-publizhed List of Hardy Trees and Shrubs at Kew. It is not of the same value as $W$. einensis, but it does not come into competition with that apecies, an it flowers two or three weekn later. It was introdaced from Japan about twenty years ago, and being frequently met with there in a cultivated atate, was for long considered indigenoul to that country. It in now thought to be moat probably a native of China or Corea. The character which, besides it later flowering, distinguishes it from W. sinensis, is the extreme length of its racemes. Ordinarily, these are at least 2 feetlong, and the Hon. W. F. D. Smith, at the Temple Show of 1894 ahowed racemen a yard in length, grown in his garden at Henley-on-Thamea. The fower differ also in being more aparsely arranged, in having aborter pedicels, and in being maller. In colour they are most frequently a blend of blae and white, the proportion of each colour varying in different plants; there is one variety, lnown as albs, with flower wholly white. The leave are more nomerously divided than in W. chinensis, and the leafete, which are smaller, are bright green, and glabrons on both surfaces. Ia thi country, at any rate, it doe not fower 0 freely an the better-known speciet, and where apace can only be afforded for one of them, it ahould not have the preference.
W. brachybotrys.-It is doubtful whether this plant can be admitted an a distinct epecies. I have not seen it under cultivation, but judging from the various figures that have been published, it is, mout probably, a form of W. ehinenis, which is now Lnown to be aative of Japan an well as China. Siebold discovered it in Nagasaki, and figured it in the Flora of Japan, t. 45 Is wen introdaced by him to the continent about 1830, and fowning subsequently in the Botanic Garden of the Uaiveraity of Gnent, was figured in the Flore des Serres, t. 880. Although met with occasionally under cultivation in Japan, Siebold observe that he saw it once only in a wild atate, and then in a sot where it covered the whole nide of a hill. The fuwers are produced in April in racemes that are much ahorter than thowe of W. chinensia; they are of a deep purplishblue, and mingled with the tender green of the folinge, are very effective. The folisge is like that of W. chinemais, but the plant in dwarfer.
W. japonicu, yy. Nilletia. - This apecie is scarcely known in this country outwide botanic gardeur. It wan found by the Kew collector, Richard Oidham, in
Nagnenki, Japan, in 1862 , but, had previouly Nagaraki, Japan, in 1862 , bus had previously beon
known to Siebold, who figured it in the Flora of Japan, t. 43. In the accompanying text, he aya "the clustern of white flowerk hanging from the tops of the buahes and trees form a magnificent aight, giving to the vegetation an aapect of wild beauty." In apite of this, however, it can only be described as one of the least ornamental of Wistarias. The racemes are amall, as are also the individual flower compared with those of W. chineasis. It flowera in July and August.
W. frutescens.-This, as before stated, in the one species found out of Asia, being a native of Florida and other sonthern United States. It is a climber like W. chinensis, but is not so strong a grower. The leave are of a rich bright green, with the leaflets not so numerous as in W. multijuga. The under-nurface and the midrib of the leaf, an well as the joung branches, are covered with down. The racemes vary in size from 3 inches to 6 or 8 inches in length, the flowere being a pale bluish-parple. There in, however, a white-flowered vaiiety, and also one named magnifica. The latter has racemes sometimes more than 1 foot long, and an deacribed by American horticalturists, is a mach aperior plant to the typical form. It flowers later, and is, on the whole, well worth cultivation as an ornamental c'imber. In the racemes of $W$. fruteacens the flowern are much more closely packed than in the Asiatic species.

Little need be aid in regard to cultivation. Wiataria are amongat the most amenable of hardy plants, thriving in any soil that is of fairly good sabatance, and moist. In the early stages they may be helped by top-dresning of manure applied in apring. When planted near trees over which they are intended to climb, a large pocket of good loam ahould be provided, and they mould be planted in auch position that light and rain can reach them. Some fine effects are prodaced in Mr. Anthony Waterer't nurwery at Knap Hill, where Wistaria chinensis hae been allowed to clamber over Pine-trees and Laburnums. In the latter case especially, the aimultaneous flowering of the two things, and the intermingling of the yellow and purple racemen, make a beartiful pictare. All the apecie may most readily be propagated by layering-seeds being only produced in years of exceptional brightnem. In 1893, for inatance, W. chinennia ripened a fair quantity of aeed. W. J.B.
BOOK NOTICE.

## Manures and their Appligation.

In no department is the average gardener more deficient than in the knowledge of manare and their proper application; we, therefore, welcome a ureful and cheap little treatise apon thia important subject by Mr. W. Dyke,* which is, in fact, the abatance of a lecture delivered to the Cheshant, Wormley, and Diatrict Horticultural Suciety, May 9, 1895, but revised and given in fuller detail.

Tae suthor does not claik that there in anything new in hin little work, his idea being to give to those whome duty or pleature it is to cultivate the coil tome idem of the different kind of manare in ase, then action when applied to the soil, and the quantity likely to produce the best reaulti generally.

It is wonderfal and inatructive to see to what nice shadinge of adaptation this preparation of food for plants has during recent years been carried. Here is a soil, rich in organic matter, on which we winh to raise a crop of flowers or frait, but because of the very abandance of organic matter, there will be an overgrowth of wond and foliage-a splendid thow of greenery, but little blowom or frait. We ask, throagh the agricaltural chemist, what the trouble is? He thow un that potanh enter largely into the fabric of the wood, and phonphoric acid largely into the formation of the fruit, and it is matnration 10 ware after. S, we give the plant a food containing 10 or 12 per cent. of moluble phomphate, with a

[^15]liberal amount of potash, and the tree or flowering plant gratefully responds to our thoughtful kindnen in asking it what food it needed or preferred.
The pamphlet before us will anaist the practical gardener in his study of manures, as to what they are and what they do. It is divided into two lee tions, ander the heading of "General Manures," thone which contain all the ingredient required by plants for their nutrition; and "Special Manares," thone containing one or more (but not all) of tha necessary constituents of plant-food.
A few corrections in the work are neceasary, to which we should like to call attention. The poisonous element in malphate ammonia is nulpho. cyanate.
The quantity of nitrate of soda recommended to be applied is from $1 \frac{1}{2}$ to 3 cWt . per acre. This wo consider is too mach for most garden producti. From $\frac{1}{2}$ to $\frac{3}{4} \mathrm{Cwt}$. per acre is as mach as the majority of garden planta can take; otherwise quality is acrificed for quantity. The keeping quality of Onion is greatly deteriorated by large dresaings of nitrute soda. Soot in a very variable manure ; it contain bat little nitrogen, and from 1 to 4 per cent, of ammonia.
Blood, after being dried, in a valuable manure ; it contain from 78 to 79 per cent. of organic matter; 7 to 9 per cent. of ash ingredients ; about 12 per cent. of nitrogen; from 1 to $1 \frac{1}{2}$ per cent. of phor phoric acid; and about $\frac{3}{4}$ or 1 per cent. each of potash and lime. From some carefully-condactad experiments in Bulgium by Professor Petermann, it was found that the fertilising power of nitrate of mods war greater than that of dried blood, and expecially so on light land. According to Petermann's resula, by far the best remult with dried blood were obtained on clayey soil., whether the manure wal aned alone or in combination with phoaphater and potanh.
The quantity of nitrate of oda recommended for lawas, 25 per cent. of the mixture, is certainly all excess; if more than 5 to 10 per cent. of nitrate soda is uned in a lawn mixture, the coarter quality of herbage will be found to come too prominently forward; and as the lawn will require under stimu. lating dressings of manare more frequent catting, deterioration and exbastion will the more quickly follow.

OUR POULTRY.
By Harrison Weir.
(Copyright,)
(Continusd trom p. 40)
In my last I note an omission. Speaking of the Langshan, three words have in nome way bees omitted. The sentence ahould read "they are excellent layers, the egge being of fair siz'," \& As stated, the black variety is the most common, though there is no reason whatever why other coloura abould not be produced, though the Langatal Club has, I think, very anwisely given its opinios that any other colour is not desirable, nor can anch be of the true breed. I remember yeart sgo seeing among a lock of Rooks two pure white birds; would the committee of the Langehan Clab have the hardihood to say that these were not true bred Rooke or white Biackbirds, which are not very uli common, were not trae bred ousels. In breediot snimaln or birds, enpecially thone entirely domestic, white or blue ia by no means an unnatural subutitute for black, and therefore to my thinking, it betrigis very narrow-minded conception of the breed of variety of fowls called the "Langehan," when it is asterted that only the black variety are the tree, while the white or blue are decided by the clab to be cront-bred. In this matter, I entirely differ wim the committee of the Langahan Clab, of which I II an honorary member.

Again, I most eriously differ with them when ther atate in their "points of excellence," chat the plamise should be "tight." I have paid great attention to the peculiar style of thene birds ever since they were first imported by Major Croad in 1872, and by otress afterwarde, and I am bound to may that I have seve
seen an imported bird "tight-feathered." So ne have been what is termed close-feathered, which ia a very different thing. The Laggshan Clab also insist on 1 og legu; this is also contrary to my experience of the imported birds, as is also that of being long in the back. Ia fact, the Club hat materially altered the ahape of the Langahan for the worse, both in appearance and atility, the longlegged birds being moch later in coming to maturity than the short, mare, compact, or even medinm-legged breed, of wich I have kept many, bred direct from imported birds; therefore, if any of my reader feel any inclination to keep Langsbana, I would most mbongly advise them not by any means to purchase any of the atork-built sort; melect the short,

They are mont excellent forager when they have the opportunity, and range far and wide, "keeping about" until long after andown. The principal fault is, I think, their being feather-legged, which in rather prejudicial when the grase in long and wet, though they are leas injured in this way than nome of oar Eaglish breed. I am most decidediy of opinion that this breed would have taken a very mach higher position and hold on the pablic eatimation if it had not been for the course taken by the Langaban Clab insisting on the long leg, the long back, and the tight feathering worn, of which points the best imported birds ponsessed; nor can the majority of poultry-keepers be pertuaded that very long-legged bird are either proficable, uneful, beau-


Fig 47 -lelto-cattleya fowlbri: rost-lilac; lip rict cbimson perple.
(sEE P. 192.)
square-built forme, which not only are better table fowls, being finer in the fibre of the breast-meat, but they are also better layers, and the eggs are generally more fertile. I have taken much pains for many years in inupecting the atock of imported and imported-bred bird bolonging to Misis Croad, of Poling, near Arundel, and have found these the mont detirable, in comparison to those recommended as the proper size and form by the Langehan Club. I have noted also those Langahan imported by Mr. Thompson, and of late have ween the stock of Mr. Lambert, also bred from imported birds.
The Langahan, coming as it does from a someWhat cold country, is naturally very hardy, and is a mont excellent winter layer, ${ }^{3}$ o that the chick with proper attention can bo eavily raised in the early part of the year; or, if necesaary, in the latter part, wo as to have carly or apring chickenn of good ize and quality.
tiful, or elegant. As I have aid before, do not have the long-legged, stork-like "election."

There is another Asiatic breed, erroneonsly called the Cochin, inatead of Shanghae, which is it proper name, the breed being unknown in Cochin-China. This is a large, coarse bird, and now far too much bred for feathering, without any reference to usefulnew; snd though such is the care, it must be admired as almost " work of art," so wondrous is the fluffinem, length and lightnean of the plumage, the beautiful baff colour that have been obtained by carefal matching, and for their beanty unsurpassed, while the leg feathering is produced in ach quantity as to almout hide the shape of the lower part of the body; but thi has not been obtained without macrificing some of the mont valuable qualities it previously posseased, not the least of which is its excellence at a winter layer of highly-coloared eggs in quantity, it having been not infrequently alleged
that some of the hens would lay two eqge in one day, or rather three egge in two days. Now after b-ing made a bird of "mostly feathers," the production of egge is by no means equal to that of many other fowl.

Though so beantiful in colour as the "pupas fawn" now is, the fleah is bat of poor quality, and loag in fibre, bat juicy; the akin coarse, thick, and yellow, the fat of a golden yellow and somewhat oily, which is generally found in abundance in the abdomen, tometimes to the weight of three to four pound in very large fowls; the beart is long and thin, and by no means flechy; the wings also are small, while the thigh and lege are of extraordinary eize, and fall of mucle, but by no means dry or sinews; with some the Shanghaes are in favour as large-sized table fowls, while with other they are beld in little or no esteem. Bat this hes not been always the case, for on their firat importation about $184 \%$, column were written in their favour, not only an egg producers, bat as large rich-flavoured juicy table fowls, though the genaine epicare never conld dincover in them anything meritorious in this respect, but predicted that the crossing of these with our Eaglish birds would result in mach deteriorstion, which prophecy hav, unfortunately, proved correct.
(10 be continued.)

## PRESTON MANOR, BRIGHTON.

Witain the memory of the prevent owner, the time was when acsicely a carriage came within Bubt bat which wan bound either for the manor or a neighboaring eatate; now a frequent bus-service passe the gater. At that time, strangers in the neighbourhood were objact of carionity-now the thousand of visitor and excursionist who flock to the fine ground of Preston Park and gardens (once part of Preston Manor), maks stranger a part of the surrounding, at times perhaps too evident, but the $£ 50, C 00$ or 10 which the owners of the Manor House had for the portion forming the beautifal pablic park should afford, at least, some solace for their invaded privacy.
Approached by a short drive beneath atately old treep, the mansion, standing on rising groand, present ite old-fabioned front, which in not remarkable for architectaral beaty. The other face of the bailding, to which a tower has been added, and which is clad with Iry, is very quaint and pretty, and atanding on the terrace a very charming garden-acene presente itself. The whole of the centre of the view in of verdant green lawn, to the left is a terrace with beds of scarlet Pelargoniam edged with blue Lobelias and of other bright flowers, the background being an IVJ-clad wall above which rears the quaint old tower of Preston Charch, which is also covered with Ivy, and fianked by ornamental trees, a bank of Yewe and Eaonymus forming a base to the tower in harmony with it and the other objecte around. At the end of the green-ward rane beds of flowert, and on the right the pretty walled-in gardens, in which are mingled fruits and hardy flowers, after the manuer of gardens in the olden time, and which it is the delight of Mrn. Macdonald to maintain. Here are Apple, Pear, and other fruit treen, some of them perhapm a good deal behind the timen in quality, bat beautiful neverthelese. Beside the grasy or gravel walke which here and there internect the gardens are numerom clampe of Rowes, "ancient and modern "-aingle and double; masses of perennial Sanflowers, eingle and double; Phloxes which must date from the very earlient crosee of the apecies; long atretchen of Lily of the Valley, beantifal and fragrant in their season; and of Violeta and other fragrant flowers, and among them patches of anuuale, which help to make a brilliant display. Among the shrube, Calycanthus prsecox is in bloom, and the Weigelas, sce., very pretty and effective.
In one of the sheltered gardens a large quantity of grand plante of Richardia athiopica (Arum Lily), some of which have ten or twelve crowns, is planted out, and a fine lot of neat plant of Azalea indica are well set with bud.

The glas-house are in keeping with the rest of the garden, bat of them it may be aid that more modern atructares would be an advantage. As it in, in the hands of Mr. H. Naylor, the gardener at Preston Manor (formerly with Mr. Beckett, at Aldenham, and $\mathrm{Mr}_{\mathrm{o}} \mathrm{H} \cdot \mathrm{ll}$, at Lord R thachild's), the best that is is ponsible to malke of them is assured. In one of the vineries is a good show of taberous Begoniar ; in another house a fine dieplay of zonal Polargoniams, the grest bashes of P. Raspail having b:oomed from lati antumn antil now, and are atill good.

A little house of Maidenhair Forna has the walle covered with Ferns, and is a very pretty object; and in other honges and frames are a fine batch of Taberosea jnst coming into bloom, and varioue other thinge for autunn and winter flowering.

Somehow, there is a charm about thene oldfachioned gardens, and an interest in the plants in them, which is lacking in modern, and what are called well-kept gardena.

## CLIMBING PLANTS AT THE abbey park, LeICester.

The caltivation of a general collection of plants under glass is not an objuct at these fine pablic gardens; bat the winter garden, in which are some oplendid ppecimens of Diacæera australit, has a good selection of greenhouse climbers its roof, some or other of which are in bloom all the year round, and are apecially $u$ afofnl in assisting in makiag an effective display when the houne is arranged with the 2000 or so specimens of Chryanthemums which Mr. Bura grows for the purposa every year, and which, with the retting of drooping climbers overhead, and the graceful heada of the Dracænas among them, present a far more beantiful appearance than do mot other arrangementa of Chryasnthemams.

At the time of the grent flower show (Auguat 6), more or less in bloom on the roof and pillare were *everal kinds of Pasaifora; Lonicera wempervirens, Clematia indivisa lobata, Trachelospermum jasminoides, Swainonia galegifolia, and S. g. albz, Tecoma jasminoides, the charming sky-blue Plumbago capensis, and the white P. capensis alba, with large bouquet-lize heads of bloom; Coboes scandens variegata, and the bright-blue Sollya Drammondi, a very pretty old plant, but rarely met with now.

## ABNEY HOUSE, BOURNE END.

TER pretty river-sids renidence of Misa Hammersley, on the banks of the River Thames, about midwas between Maidenhead and Great Marlow, is wall known to frequenters of the district, and the well-kept ground form a noticesble feature to plearare-reekern. The house itself, or, at least, the whole of the south front and roof, has been, until quite recently, covered by a fine apecimen of Ariatolochia Sipho, the handaome foliage in the summer making it an object of great beauty. Alas! it is now dead-from what cause seeme uncertain; but the flooda of November late, which almont reached the plant, and must have saturated the soil about the roote, followed by the mevere winter, weme to be the probable cauce of the loss of this fine specimen.
The pleavare-grounds are not very extensive, and Conifers generally do not flourish, although there are some healthy Sequoia gigantea which seem to like the moist aituation, and are fast growing into good apeciment. Begonias were the mout attractive fantare of the bedding, weveral bedm being filled with diatinct coloura, flowers erect, and one mass of bloom. The atrain is Owen's Ioperial, and it is one that in well adapted for bedding-out purpouen.

The glasthonnes are numerous, the most conmpicuous being a fine orchard-bouse, which really
promptad the writing of thene notee, prompted the writing of there noter, Having reen the excellent dishes of fruit ataged by Mr. Goodman, the gardener, both st the Maidenhesd and Reading atown, in past years, I called recently theuse being quite in the above-named orehardhouse being quite in the locality. It in a seman-
roofed atructure about 120 feet long and $\mathfrak{0} 0$ feet wide, running north and south. Inside there are three beda, one on either side and a central one, with a path running round about 6 feet from the nidea. The treen on the east border are planted out and trained about 12 feet up that side; the remainder in central and went borders are bush trees of Peaches, Nectarines, Pams, and a few Pears growing in pots plunged in the noil of the borders. From there trees abundant crops of fine fruits are annually taken. The pota are perforated ones, mostly of $1 t$ inches in diameter, and the roots are allowed to work through the holes in the aide into the anil. Fur some years past they have been annually lifted bodily (at praning time), nearly all the roote cat away that have passed through the sides and bottom, and replanged, adding a amall quantity of newly-prepared soil around the siden to encourage fresh root-action. They are not taken out of the pote. Great care is alao taken to keep the soil moint at all timer, a mont efficient water-aupply being laid on, and water is earily and quickly applied by means of a hose. Frost is not excladed, and although the house in fitted with two rows of 4 -inch hot-water pipes, the water is run off, and fire-beat is not applied uatil after the trees begin to move in early apring. While the fruite are welling, the trees are occasionslly fed with dilated sewage, used in a perfectly clear state.
Many varieties of the Paach are grown, the earlient to ripen being Alexander and Waterloo, which are followed by Amvden Jane and Halea' Early. Sume very heavily-cropped trees were Dag mar, Condor, Crimson Galande, Dymond, Sea Eagle, Nectarine, Princens of Wales, and Osprey Paches, and of Nectarinep, Lord Napier, Hamboldt, and several of Rivers' Seedlinga; Hamboldt is an enpecial favourite, and pats on a beartiful coloar. Some splendid samples of Plams were ripe: Oallin's Golden Gage wan apperb, also Kirke's Bille de Louvain, Jeffertoon, and Belgian Parple. Some 600 dozens of good densert Peachen and Nectarines have most years been gathered, bevides abundance of Plums, and the whole forms one of the most saccessfal examples of orchard-honse calture to be found in the country, of which Mr. Goodman may well feel proad.
In a greenhouse I noted a fine plant of Buagainvillea glabra trained under the roof and flowering most profunely. It was planted in a box in a mall house adjoining (in which Eucharit plants are grown), and the rods taken through the brick wall into the cool greenhouse, where it annually prodacea an abundance of its bright floral bracts.
The kitchen garden was looking remarkably well, and vegetablea generally are well grown. I noticed mome wonderful amples of Ailsa Craig Oaion, which should find a high place on the exhibition table later on; while Peas, Beans, and Canlitlowera, were well repremented, notwithatanding the drought, an anlimited water sapply at high presure being within reach of all parts of the garden from stand-pipes fixed at regular intervals. $C$. $H$.

## Variorum.

The Cultivation of Bananas - The Banana is becoming a regular article of con. samption in Earopes and large quanticies are now shipped hither, principally from the Aatilles, where this fruit is cultivated on a large scale. It has always been in great request in the Caited Staten, and, judging from the quantitien now to be neen in Eagliuh fruit whops, it will soon win ita way to public favour here in the same way that the Tomato has alresdy done. There is an immenae Banana plantation in Cabs, covering an srea of 00 square miles, and in it 3,500 permona are employed in cultivating and gathering the bunches of truit produced by $2 \frac{1}{2}$ millions of treee, the tranaport of which has necenitated the creation of a fleet of twenty-vix steambosta. From Jamsica, where the Bunana tree has almost entirely taken the place of the sagarcane, Buranas are now exported to the annual value of about £400,000; and at Hondura, Consa Rica, and the Hawsiian Islanda, their cultivation is extending more and more. Ac Conta Rica alone, there are already
about 350 plantations, containing over a million treen, It is a very lacrative industry, and is conducted with a very mall outlay in the way of working expenten, a damp soil and plenty of irrigation being the two principal requirements. Nine monthe after planting the young trees begin to bear, and from that time forward a certain number of bunches may be gathered almost every week, the reproduction of fresh trees going on continually in the mantime by means of numerous shoots and off sets. The cropi are very abundant, and a grove covaring, asy, an ares of 1500 sq sare yards, will yield from 6000 to 8000 banches in one year. some individual banches being worth from $2 s$, to $2 s, 6 d$ a piece. The froit when gathered is carried on rails to the nearest port of shipment, and taken on board steamers of aboat 1000 tons capacity, and each one capable of containing some 20.000 bunchen. Beeides being consumed in its nataral state, however, a very excellent flour is also made from the Banana in many placen, by desiccating the froits after depriving them of their aheath, and 今̂hen redacing them to powder. Thin delicious little comestible, indeed, is the object of a mach more extensive trade than is, perhaps, conceived by occasional consumers of it in this conntry. Western Morning News.

## Tha Waek's Work.

## PRUITH UNDER GLABs.

By Ricia md Parker, Gardenet, Goodwood, Chichester.
PINES - Suckers that were recently potted will be making roots, and care will be required in order to maintain the noil in a fairly moist condition. More water than is necessary is dangerous, as it may caue the base of the sucker to decay. Syringing overhead mast also be done aparingly, to prevent moitture collecting in the centre of the plants. Should bottom-heat decline below $80^{\circ}$, the planging material *hould be rammed together firmly, and freat tan or leaven added to raise the temperature to $85^{\circ}$. Oaly nufficient shade should be afforded at mid-day to prevent the leaves being scorched, reducing it gradually, so that by the middle of next month, when the planta are well rooted, it may be dispented with altogether. It is not too late to put in ancherr if aufficient were not forthcoming previously; in. deed, if more are now pat in, it may cause a better nucceation of ripe frait.
cucumbers - Plants that were recently plantad out to produce a winter supply mast be kept grow. ing freely, stopping the shoots at every other leat, $\mathrm{n}^{n}$ as to have the base of the trellis evenly corered mith healthy ahoota, at the same time remoring all the friit and male blooms as soon as seen, by which ment strong plants will be prodaced before the antumin Additional rich porona soil should be given at intervala of a week in mall quantitien, adding with it charcoal, lime rubble, or burnt-earth to keep the whole from becoming sour. The plantin should be ayringed regularly with tepid ritr water, and plenty of water used about the floors, \&ec, so as to ensure a growing atmosphere. Ventilution carefally daring bright days, and avoid an inrubt ouk cold air, or a sudden change of temperature. Weat stimulants may be afforded, but in the caee of planta
that have to atand the winter, it is not deirsble to that have to atand the winter, it is not denirsie s
promote a very grose growth at this season. Keep promote a very gross growth at this season. Kepp night temperatare of from $70^{\circ}$ to $75^{\circ}$; and darivg the day of from $8^{\circ}$ to $10^{\circ}$ higher; and if that as perature of the house is dependent ast mitren
possible apon nolar heat, so much the better.
soila.-Now is a good time to get under covers good supply of the different kinds of noils for will be ane, and a grod heap of compost, which will required next month for different kinds of fruit-read in pots, and for the renewal of Vine or fored borde

THE KITCEEN GARDEN By Joan Lambert, Gardener, Powis Casth, Weinimit QLOBE ARTICHOKE8. - Plantations consisithig old the oldest atools may now be cleared of decsivith fruiting stems, carefully detaching all leaves at the ame time. A'terwarda give an made dreasing of rotten manure. Young plantation provide in the apring as advised, thould now provide thel of heads of a deep green colour. Almays Heada mys be before the colour loses its fredhnesf. Hexare, if the kept fresh and fit for ure for neveral dyy.
atems are planged in damp moss or water, in a cool, moiat room. For late autuma catting, the plants should receive occasional moakings of manare-water, and be syringed after hot days with tepid sootwater.
cabbage and cauliflower.-Make another sowing of each of thes for standing through the winter; those of the first sowing will now be ready for pricking out, and this should be attended to at once. A planting of Coleworts may atill be made, if necessary.
endive and lettuce.-Make frequent plantings of each of these, and be prepared to protect the former if a severe winter ensue. Frtquent plantings of Lattuce should be made for winter ane, and a border facing west, sheltered by a hedge or wall, is one of the beat sites for thene plants. Good batches of strong plants should also be put out weekly on a piece of good land, well exposed to sun and air, for catting from until Christmas. Some of the plants should also be pat into framen.

MUSHROOM BED8.-In order to have a winter supply of Muahrooms, materials for making the beds mast now be gathered without delay. After trying varions ingredients for mixing with the manare in order to make it go further, such an tan, leaves, loam, \&cc., I find the latter to be the best; bat if plenty of good droppings can be procared for the troable of collecting them, these are all that is required. Leave in all the short litter to mix with the droppings, and let them be spread out in a dry, open shed. tarning them every third day or so. In about ten day they may be thrown together in a heap, and tnrned every third day, so that they may gradually become sweetened. The materials may theu be placed in the Mushroom-house, well treading them down, and making them very firm when of the required thickness, which should not be less than 1 foot. When the heat declinesj to $80^{\circ}$, it may be affely spawned. The brick of apawn may be laid on the beds to soften one day before it is used, and great care should be taken in spawning the bed to be sure that the piecer inserted do not lie hollow. The covering of the bed should consist of good loam, of about $1_{\frac{1}{2}}$ inch in thickness, and if this is from a meadow known to prodnce good Mushrooms, so mach the better; it ahould be beaten tolerably firm, and in winter the loam should be warmed before it is ased.

THY ORCHID HOUSEB.
By W. H. White, Orchid Grower, Burford, Dorking.
DENDROBIUMB.-By this time a few plants of the evergreen eection of Dendrobium, including D suavissimam, D. chrysotoxam, D. Farmerii, D thyrailloram, D. denaiflorum, \&c., will be finishing their growths; but as thene apecies continue to root for tome time after this, do not allow a lower tempersture than that of the Cattleya-houne. To plants that have completed their growth, the sapply of water at the root muat be gradaally lensened, so that the buibs may become hardened, bat they should not be kept too dry whilut the roote are active, or they will probably start a second growth, which generally is weak, and the new growth made in the spring will also be weak and poor. The hot summer has benefited such Dendrobiums as D. Phalænopois, D. superbiens, D. Goldieana, D. bigibbum, D. Bennorise, D. tarinum, D. undulatum, D. secundum, \&c. These plant should now be in the hotteat house, and if grown as they should be in amall pota, and these have become filled with roots, they will take almont anlimited supplies of water. In cases where the plants can be allowed a corner of the house to themselves, they ahould be allowed all the light and sunheat ponaible. If it be possible to ufford the plants fall anasine, let them have a liberal supply of fresh air during the middie hours of the day, and about 2 p.m. close the honse and ayringe the plante well amongst the leavea, which will cause the growths to come on freely and make mirong vigoroas balba. Some plante of D. Pha'æaopnis have already completed their growthr, and are sending out bloom spiker. When the flowers are fally open, arrange the plants in that part of the house where the ventilators are more or less alway open, or if convenient in the Cattleya-house, the drier atmouphere of which would suit them better.

BARKERIAB.-The species of Barkeria, as B. Lindleyana, B. elegana, B. Skinneri, and B. cycloclle are worthy of attention, their pretty and large Gower-spikes in proportion to the size of the plant, presenting a gay appearance during the dull season.

They acceed well ander treatment similar to that given to Dendrobiam Phalænopsis.

CALANTHE8. -In order to obtain atrong flowerapikes, and to secure clear and bright flowers, we fill up the room on the south aide of the East Indiunhoase, recently occapied by the deciduoar Dendrobinme, with the most formard plants of the deciduous Calanthes. The plants should be elevated well up to the roof-glasp, and so arranged that each obtain itn share of aunlight. Daring the middle hours of the day when the sun is bright, only a very thin shading is needed, but if exposed to the san in the early morning, and again in the afternoon, the balbs will finish ap atrongly. In the extra light the plants will dry quicker, and will require plenty of water at the roota, and an alternate waterings with liquid manurewater will be beneficial. The Regnierii section of Calanthen are only aboat half-way through their frowing season, and should therefore be treated the same as the others were when in full growth.

## THE FLOWER GARDEN.

By Buscer Wadds, Gardener, Birdsall Gardens, York. ROses.-Attention shonld be given to the ligatares of badded stocka, loosening these if they are causing any ribbing of the rind. Buda may still be inserted in stocks that were not in a fit atate for budding at an earlier date. The recent raina will have rendered the bark easy to raise The present is a good time to thin ont the blind, weak, and flowerlems wood of such varieies as give late bloom; and those growing atrongly and making a good deal of wood will also be benefited, an it will enable the strong shoots to become well ripened. Some of the best of the thoots that are removed will make cuttinge, and auch should, whenever posibible, be taken off with, heel; and they should be straight, and from 7 to 9 inches long. Insert them in well-drained, sandy loam, in rows at 12 inches apart, and 6 inches between the cuttings. making them firm in the ground, which should be dug over as the cattinga are pat in. If there are many cattings it is an expeditious method to dig a space, trample it firmly, then cat down a trench with a perpendicalar face, and lay the cattinga against it with their topa about three buds above the groundlevel, and proceed as before, and so on till all of the cattinge are put out. $\mathbf{A}$ border facing went is a saitable one for a cutting bed. hould be placed in pite or frames there they can be protected from frost. Where framen and a mild bottom-heat can be commanded, the propagation of Roses is rendered more certain. The cattings for this method of propagation may be 4 or 5 inches long, and they may be dibbled into 6 or 8 . inch pots filled with sandy loam. These potfals of cuttings uhould be placed in a cool, shaded house for a time, that is, till the wounded ends are calloused, and then plunged in gentle bottom-heat. When rooted, pot them off in small pot, and keep under glass till the apring. If a new ronery or new rose-bed have to be made, the work of getting the ground in readiness for them should be soon taken in hand. The best kind of soil in a strongiah loam, and if the staple is not of this nature, some heavy loam should be mixed with it. A rose-bed should have a depth of at least 18 inches, be well drained into a dry well, if the land is not naturally or artificially drained. If the absoil be clayey, it may be barned, or wheeled away; stabledang, crushed bones, and light loam should be added to loams that are very tenacious, and strong loam and cow-dang to that which is aandy and light. Hybrid perpetaal Roses should be planted early in the autumn, not waiting till every leaf has fallen, iff the shoots are well matured. When the planting is finished, mulch the plante with half-rotten stable manure. Notes may now be taken of alterations to be made in the rowe beds. Old rose-beds ahould be replanted during the antumn, the ground having been heavily manured and deeply trenched. If any freah plants are introduced, they ahould be lept by themeives. Make necure any long trailing shoot of ronea before the unal antumn galea come; and apply sulphur or other mildew antidotes if mildew be present on any of the rones.

## THE HARDY IRUIT GARDEN.

ze W. Pops, Gardener. Aighclers Cartle, Newbury.
gathering and btoring of fruit.-Fruitatoring will soon become general all over the couthern parts of the country. The fruit-rooms should be thoroughly cleaned and aweetened in
advance, the tables and ahelves thoroughly wahed with hot soapauds, and the walle lime-wanhed, uning frenhly-olaked lime, to which a handful of Howers-of-aulphur is added, and it ia beat applied whilat in a hot atate. This lime-wan will effect apeedy clearance of insect and their eage, and free the rooms of fungu-germs. Before the fruit is taken into the room, the latter abould be choroughly dry. Every deacription of fruit should be handled with care, for however hard an Apple or Pear, for instance, may be, they are raadily bruised, and braisee alwaya tend to early ieosy. A little woft hay bhould be put into the bottom of the gathering-baket. A mistake often made is to gather fraits when they are supposed to be large enough, without taking fitnens into account. As a guide, fruit may be cut in half-if the pipa are brown, the crop may asfely be gathered ; or thone which on being raised. part readily from the apur, may be taken first, ohere being left for future gatbering, it being seldom that all the fruit are ripe at one and the same time. Early varieties of Pears should be placed on different aspects, and some of them on pyramide or ntandard in parts of the country where these succeed, so an to lengthen the seanon as wach as ponible. Gathering a crop from a tree at various timen, an advised, hat also the ame effect.

PEAChes and nectarines.-The Peach and Nectarine tree should be examined daily, and all fraits gathered which part eanily from the thoots, laying them on clean woft paper or cotton-wool in a cool room till required for the dessert. Continue to expone all fraits to full sualight by tying back or taking away overshadowing leaves. As soon at a tree is bare of frait, ufford it a washing with the garden-tngine, so al to clear off red-spidor and other inuects, and at the same time remove copings of glass where thene are employed. Choice varietiet of deasert Plams may be gathered and placed in a dry airy room till wanted, an the fruits will keep in good condition for meme days, and they improve in lavour by being kept a day or two after being gathered. Bees, waspn, and fliez are very partial to ripe Plame, and atoring them in a room, the window: of which are covered with fine netting, is a better way of preserving the fruit than leaving it on the trees till required for tae. Of course the trees can be covered with netting, but everyone does not ponsens this rather expenaive atuff.

## PLANTS UNDER GLAEB.

By W. H. Smrrin, Gardener, Weat Deas Park, Chichester.
stove.-Planta of Pancratiam fragrans that need freah soil may be potted on, or divided as soon as they have finished flowering. Use a compost of turfy-loam, leaf-zoil, cow-manare, and sand and include a good quantity of charcoal, which will help to kesp the soil sweet under the abundance of water the plants require during their growing seamon. Plants which do not require re-potting thould receive frequent dressings with some well-tried fertiliner or farmyard manure-water while making their growth. Ipoccoas should now be placed in their floweringpots, and they are very bright and pretty-looking during the late autamn if trained on wire where they will obtain plenty of light. Pat in a batch of Tradencantia cutting for furnishing purposes during winter, and at they root very freely the old atock may be thrown away. Pot on young plants of Dracænas, Palm:, Codixam:, Pandanas, \&c. that are pot-bound. Take cutting of Strobilanthes Dyerianas frequently, at this plant has far better colour in a young state. WinterGowering Gennera should be afforded a small quantity of weak manure-water if the potn are filled with roota, and they should be placed in a rather dry position near the glase where the syringe is not likely to reach them, for mould the leaves get damped, diafigurement will zoon follow. Achimenew which have gone out of flower shonld be allowed to become a little drier at the roote, and whes the growth hat died down, placed anderneath a green house atage or in the potting-whed, where front ean be excluded.
plants in frames.-Continue to repot Chinese Primulas, Cinerarias, and herbaceous Calceolarias as they become ready, and if infested with fly, they should be taken into the greenhouse, and there fumigated. It is a dangerous practice to fumigate any tender plants standing in low framer, the leavee being very liable to get scorched or otherwiae injured. If the weather should become cool or the air very moist, mild warmth should be afforded auch plant sa the donble-flowered Primulas, Poinsettie palcherrima, Liboniat, Epiphyllame, Scutellariat, \&c.

## EDITORIAL NOTICES.

Advertisementa should be sent to tho PUBLISERR.
Newspapers,-Corresponients sending newspapers should be careful to mark the paragraphs they wish the Editor to see.
Lotters for Publication. - 40 communications intended for publicatiom, as well as specimens and plants for naming, should be addressed to the Editor, 11, Wellington Street, Covent Gardon, London Communioutions Street, Covent Gardon, LONdOH COMmumioutions
should be WRITEE ONE sent as early in the week as possible, and duly signed by the woriter. If desired, the sipnature will not be printed, but loeph as a guarantee of good faith. The Editor does not undercake to pay for any contributions, or to return unused commuthications or illustrations, unless by special arrangement.

## APPOINTMENTS FOR SEPTEMBER.

## SHOWS.

TUEgDay, 8ept. 3 S National Chryeanthemum Society's THURSDAX, EEpT. $s\left\{\begin{array}{l}\text { Paisley Horticultural Society (two } \\ \text { days). }\end{array}\right.$ FRIDAY, Skpt. of National Dahlia Society, at the TUESDAY, SEPT. $10\left\{\begin{array}{l}\text { Royal Horticultural Society's Exhi- } \\ \text { bition of Yegetablea, at Chiswick }\end{array}\right.$ saturday, Sept. 14-Galashiels Horticultural.
THURSDAY, EEPT. $20\left\{\begin{array}{l}\text { Royal Horticultural Society's Great } \\ \text { Show of Brition grown Fruite, at } \\ \text { the Crystal Palace. }\end{array}\right.$
SALE S.
MONDAT,
SEPT. $2\left\{\begin{array}{l}\text { Dutch Bulbs, at Protheroe \& Morris' } \\ \text { ROoms. }\end{array}\right.$
TUESDAY,
SEPT. $3\left\{\begin{array}{l}\text { Dutch Bulbs, at Protheroe \& Morris' }\end{array}\right.$ TURSDAY, SEPT. $3\left\{\begin{array}{c}\text { Dutch Bu, } \\ \text { Rooms }\end{array}\right.$
WEDNESDAT, SEPT. $4\left\{\begin{array}{c}\text { Dutch Bulbe, at Protheroe *Morris' } \\ \text { Booms. }\end{array}\right.$
THURSDAY, SkPT. $5\left\{\begin{array}{c}\text { Datch Bulbs, at Protheroe \& Morris' } \\ \text { Rooms. }\end{array}\right.$
Friday, Sipt, $\int^{\text {Dutch Rulbs, at Protheroe \& Morris }}$ (
Orchid, (Com Menark. F. Sander as
Co.at Protheroe \& Morris' Rooms.
saturday. Sert. $7\left\{\begin{array}{c}\text { Dutch Bulbe, at Protheroa } 4 \text { Morris } \\ \text { Hooms. }\end{array}\right.$
COMREGTED A VERAGE TEMPERATURE FOR THE ENSU-
DNG WEEK, DRDUCED FROM TEE OBSERVATIONS ING WKRK, DRDUOED FROM THE OBSERVATIONS OF FORTY-THRER YEARS, AT CHLSWICK.-69'.

The National THE eighth National Co-operative
Co-operative Festival took place at the Crystal Festival. Palace on Friday and Saturday last, the preliminary meetings dealing with the economic and international aspects of the subject having been held in London on the preceding days. One of the chief of many characteristic features of the annual gathering at the Crystal Palace is a gigantic flower show, held under the anspices of the Agricultural and Horticultural Association-a large trading conoern conducted upon co-operative prinoiples. That the subject of co-operation is a powerfully attractive force is seen from the fact that some 70,000 persons visited the Crystal Palaoe on Saturday last.

From a horticultural point of view, the flower show must be considered to have been a distinot nucoess. The time has well nigh passed for contrasting the enormous extent of the display of last week with the two early exhibitions held in the conservatory of the Royal Horticultural Society's gardens at South Kensington; but the growth in a few years has been surprisingly great. The display on this occasion had to be confined to the eastern portion of the nave of the building owing to the other half being ocoupied, but it overflowed into the aisles and courts on either side. Owing to the rentricted spaoe the exhibition appeared amaller than in previous yearg, but the tables were most inconveniently crowded, clames ansvoidably overlapping each other, and oreating some confusion. There wan a marked increase of entriea in all the leading classen, and some iden of the enormons amount of detail connected with meh an exhitition is shown by the fact that there were 1823 entrien of vegetables; 1209 of out flowers; upwards of 500 of planta in pots; a con-
siderable number of fruit; in adidition to those of table decorations, ladies' and childrens' exhibits, farm-produce-for there are farms conduoted upon co-operative prinoiples, \&c. What all this means in the way of clerical work and close attention to details, can be grasped only by those who undertake such work, and can thus know something of the burden of labour imposed apon Mr. Gkorgr WAUGH, the Direotor of the Flower-show, and his staff of assistants.

Looking along the tables, here and thore could be noticed an apparent diminution in the numbers of exhibits, but these related to subjects influenced more particularly by the long period of drought so generally felt, and which preceded the grateful July rains. In other classes there were marked additions; and let it be recorded, the average quality was decidedly high. If any exhibits fell below it, it may be safely assumed that they were the produotions of new exhibitors who had not mastered the knowledge of the qualities in vegetables which gain prizes, or who were led to think that mere bulk without corresponding symmetry would find reoognition by the judges.

Plants showed a noticeable advance in size and finish, the largest of course coming from places within a reasonable distance from the Palace. Many of the specimens are becoming too large to be placed upon tables where they are above the line of sight, and should hereafter find places on the ground floor, so as to be seen to advantage. Fuchsias, zonal Pelargoniums, Begonias (flowering), Petunias, Musk, Lilies, Coleus, Ferns, and others, were in many oases satisfactory examples of oultural skill, and annuals in pots were specially attractive, though there appeared a doubt whether some Stooks, and Asters especially, had not been grown in pots and lifted from the open groand for the oocasion. There were fine examples of Mignonette, Coreopsis, Godetia, Shirley Poppies, Canarybird-plant, Convolvulus minor, Phlox Drammondi, \&c., well-proportioned, and well-bloomed. Bunches of flowers, and especially of annuals, were pleasing festures, and it was seen that the small posies of a few years since had given place to bouquets of finely-grown and tastefully-arranged blooms. Sweet Pens were much in evidence, the beautiful new varieties of Eckford's raising eapecially; Afrioan and French Marigolds, the varieties of Malope grandiflora, Linum grandiflorum rubrum, Zinnias, annual Chrysanthemums, blue and yellow Cornflowers, were all most attraotive. Some features introduoed to the sohedale this year for the first time, in the form of bunches of blue, crimson, and yellow annuals, were deoidedly instructive, having a oertain educational value, as only one variety of flower could be placed in a bunoh. Some exhibitors place several varieties of one speoies in a bunch, imparting to it a confused appearance; whereas, where only one variety is used, as wal obwerved in the case of the Sweet Peas, their attractiveness is enhanced.

Fruit, largely exhibited by the gardeners of members of the Association, was in many cases of excellent quality; Grapes, Melons, Peaohes, Nectarines, and Figs-worthy of any exhibition. Culinary Apples were very fine; the dessert varieties in not a few instances brilliantly coloured; Plums in many sorts, and bush fruits were well reprenented. Object-lessons in staging are always instructive at an exhibition of this kind, and it is creditable to the exhibitors of fruit that they were plentifully supplied, and instruction drawn from them.

Of Vegretablea there was no lack, as the number of entries showed. Potatos showed in
some instances the usual finish seen at a 00-0perntive exhibition; but Beet was here and there coarse. Of other leading vegetables there were excellent illustrations; Raroner Beans were very good, and Peas in good oharacter. It is matter for regret that district oollectionsNorth, North-western, Midland, \&c.-Were absent almost entirely, except in the metropolitan dis. triot, and thas prevented the institation of comparisons. Some of the exhibitors on Saturday are leading growers of vegetables for show and so high quality was represented; while the staging of the exhibits was perfect. Herbs wero largely shown, and formed an instructive feature, though they were much crowded.

So large has the show become, and so keen the competition, that it is now found necessary that the judging of the exhibits be extended over two days, and so the competitive contributions in certain sections are staged on the first day, and the remainder on the second. This is advantageous in many ways, and particularly so in this-that something fresh and bright is secured to gladden the eyes of the concourse of people who attend on the second day; while it materially relieves the pressure associated with a one-day show. Let it be recorded, to the credit of the oo-operators, that, despite the enormous throng, there was an entire absenco of confusion, or of anything approsohing disorder. Great credit is due to Mr. Edwabd Owen Greening, the chairman of the Festival, for the smoothness and regularity observed in every department. An important leader in the co-operative movement, a man of business resource and prinoiple-he has led on this greast annual gathering from small to hage proportions; seeing in it a force making for the public weal, and the bettering of the condition of masses of people.

The Rxhibition at Shrewsbury.

Greater success even than for merly attended the exhibition of the Shropshire Horticaltural Society on the 21st and 22nd inst. at Shrewsbury. For many years past this large gathering has been reoognised as one of the most imposing displays of the year, and its capacity for growth and extension has been apparent from season to season. Whilst many hortioultural societies have been sabject to temporary, and, in $\operatorname{some}$ instances, perpetual financial embarrassment, the one in question has not only been free from such experienoe, but, on the other hand, it has, after duly disoharging its own liabilities, able to benefit various institutions in the town to the extent of many thousands of pounds.

There can be little doubt but that mach of the Sooiety's financial success has resulted from the inolusion by the committee of various attractions in connection with this floral fête, which have nothing whatever to do with hortioulture, but whioh, by appealing to a very different seotion of the community have increased the attendance and therefore the reoeipts to a very importand extent. But apart from the help that ha beot gained from variety entertainments (whioh $\begin{aligned} \\ \text { gh }\end{aligned}$ as hortioulturists, would be pleased to see the Society strong enough to abandon), there he been no limit to the interest and help extendea to the Society by the whole community in whate midst the exhibition is held. The worl tmo the committee also, with the help of and indefatigable necretaries, Messrs. Ansili frio NaUnton, has been conducted withou The tion, and on excellent basiness principlea facts help to explain the sucoesg of the tho w first exhibition, when a sum of about wore mold offered for competition, and there were as mild
as 2800 entries, being, it is said, 400 more than on previous occasions.
If we compare the exhibition for a moment with the important one annually held ty the Royal Horticultaral Sooiety in the Temple Gardens, there are features in either case that
sented there, and therefore the two exhibitions have little in oommon with each other.

One of the most prominent and at the same time one of the most pleasing features at Shrewsbury, is the colleotion of groups of miscellaneous plants arranged for effect. Indeed,
around the foot, grasses and Ferns and flowering plants were intermingled in a charming manner. The cones towards the front of the group, like small mounds, each farnished in the best possible taste, and other features of the arrangement that we cannot now notioe, were beyond


Fia. 48.-cthozocodon wititi. (anh P. 234.)
A, Calyx; B, base of flower; C, flower bud:
D, Stamens incurved and adhering to atigma ;
E, Plan of transverse section of flower:
F, Lobe of corona, 2 central, 1 and 3 lataral :
G. Stamen inflexed, one refiexed to ahow the pallen maes:
are wanting in the other. In extent, we think the display at Shrewsbary is larger; the tents are enormous, and they are filled. It would be impossible daring August to obtain such an exhibition of Orchids as is seen each season at the Temple, even if Shrewsbury was a oonvenient place to send them to, which it is not. As a matter of fact, Orchids are barely repro-
we have never seen a more tastefully-arranged and attractive display of this kind than that for which the first prize of $£ 20$ was awarded to Mr. J. Cypher, of Cheltenham. In the place of a central cone, such as appeared in all the other exhibits in this class, Mr. Cypher had placed a rustic arch, from the top of which sprang a gracefal Palm, whilst in saitable pookets and
criticism, and if the back of the group had been more bold, the whole would have been perfect. Mr. Edmonde, the gardener to the Duke of Sx. Albans, Bestwood, Nottingham, and other exhibitors in this class, were well worthy of praise also.

The collection of twenty stove and greenhoase plants from Mr. Cypker represented in
almost every instance the highest caltivation possible, and could hardly be over-praised; and other classes for specimen plants were equally well filled. Colens in the form of pyramids were very good, and Dracænas, Caladiums, Fuchsias, Begonias, and Pelargoniums were all exhibited satisfactorily.

Fruit is usually shown well at Shrewsbury, and it was good on this occasion, but we are likely to see fruit of equal or superior quality at the Royal Horticultaral Society's exhibition at the Crystal Palace in September. It may be aseful, however, to draw attention to the important class in which prizes amounting to $5: 50$ were offered for a collection of twenty kinds of fruit, arranged to produce the best effect, by the addition of Ferns and other plants of an ornamental character. Several of the exhibits, and especially that from the Earl of Harrington's garden, possesed very much more attraction to visitors than the collections would have done had they been staged in the usaal manner. Pine-apples were exhibited as growing, Melons were suspended on invisible supports, and intersperstd with trailing plants, whilst hard fruits were on moss, and the softer ones on suitable foliage-the whole forming a beantifal pioture. Night not this idea be adopted and extended in connection with the Crystal Palace exhibition on a future occasion? It may be objeoted that fruits so arranged are not so easily compared with other samples, and the judging is readered difficalt. But this obstacle will have to be overcome in the case of fraits and flowers alike if we are to make our exhibitions more attractive and less monotonous than they are. If hortioaltural shows are to become self-sapporting, and independent of extraneous enticement, which is very desirable, they mast be arranged so that they will appeal to the persons who enjoy striking effects as well as to specialists who stady the exhibits in detail.
Cat flowers, artistic floral arrangements, exhibits from prominent members of the horticultural trade in the North and in the South, and regetables also, farnished ample occasion for remark; but in regard to these, we must refer our readers to the hastily-prepared report pablished in our last issae.

Mr. Barron's
The retirement of Mr. Barfon Retirement. from the direction of the gardens at Chiswick oontinues to excite keen interest. The more that is known of the circumstances, the stronger becomes the feeling that the Council has, we doubt not, quite unwittingly, and without the least desire to act otherwise than considerately and honoarably, committed very serions error in judgment, in the way in which it his carried out what it deemed to be expedient. It is felt that an outside irresponsible committee, appointed by the Council, should never have consented to act as it did, and probably the mombers would not have done so had they been in the least aware of the consequences of their action.
Granted that Chiswick does not fulfil all the duties of a modern experimental garden suoh as the requirements of the times demand, and admitting that much that is done there is inconsoment with the more legitimate objects of the Society, the fault surely lies with the Counoil, and not with their executive oflicer.
The letters that we have received bear emphatic tentimony to the intensity of the feeling aroused, Council is an absolute necessity the part of the explanation is forthcoming, sad till the names of
the committee and the details of their report are made known, we are naturally loath to "apply the toroh to the heather," as one of our correspondents puts it. He, like some others, urges that there should be no delay in doing this, and that he is ready to do it! Such a step, however, would be manifestly anjust to the Council, whose explanation is not before us; and injarious to the Society, on which accoun we would counsel a more pradent course. We believe that a Council meeting is called for Monday next, for the parpose of considering the question, and till then it is well to reserve further expression of opinion.

In the meantime, we may add that a protest has been entered by the Chiswick Board, and that a preliminary meeting of horticalturists, presided over by Dr. Masters, has been held for the purpose of devising the most appropriate means of expressing sympathy with Mr. Barbon, and of testifying the admiration felt for his loyalty and faithfulness in the discharge of his duties, respect for his abilities as a horticulturist, and esteem for his qualities as a man. The circamstances attendant upon Mr . Barbon's retirement were designedly not discussed on this occasion, the business of the meeting being confined to the objects above-mentioned. At this preliminary meeting a Committee was formed, "with power to add," and a further meeting was convened for ${ }^{5}$ eptember 10. Among those present on this occasion were-Messrs. Baker, Barr, Camming, Gilbert Beale (Carter \& Co.), Gordon, Herbst, Laing, May, Miles, Masters, Marshall, Pollett, Smee, Spiver, Tarner, Weeks, Wynne. Messrs. Sutton \& Co., Messrs. James Veitoh \& Sons, Mr. Burbidge, Mr. Malcolm Dann, Mr. D. T. Fish, Mr. W. Robinson, and others wrote expressing their sympathy with the objects of the meeting. Mr. Marshall and Mr. B. Wynne consented to act as secretaries, and a sum of about $£ 100$ Was at once promised by those present, it being ulderstood that the amounts subsoribed should not be made pablic, bat only the names of the donors. When the permanent committee is fully formed we shall revert to the subject.
"Les Plantes Alpines et des Rocailles" (Alpine Plante), par M.H. Corervon, Directear du Jardin Alpin de Geaève. (Paris: Octave Don, 8, Place de l'OJéon.) This in a mall book, the purport of which is threefold, vize, to aupply deacriptions, cultural directions, and hints on the acclimastisation of alpine plants. It is but natural that the cultivation of alpines in any one sitastion muty if it is to be acceanfal, be gaided by knowledge of the varying localities and circumatance under which the planta grow natarally. By studying the altitade, oil, aspect, and climatic condition of their original habitate, nome alpine plante can be acclimatised, but in no other way. M. Corravon appends to him book a liat of the mont important alpine plants which aucceed ander caltivation, giving also brief deacriptions of each, and hints for caltivating in accordance with the rule above-mentioned, and with his own experience in acclimatining. Various illuwtration supplement the cultural directiona.

Shortia School.-Some of our readery will remember the history of the Shortia, how it was discovered by Michaces, and not found again till within the lant few years, how by come the plant was looked on as mythical, how it furnished one of many proofe of Asa Grav's agacity. All thil is told in the Chronicle. And now we find from Meehans' Mowthly that a achool called the Shortia School has been establimed in North Carolina out of the proceede of salen of the plant. Very well-bat let the acholara be taught not to exterminate the plant,
but rather how to cultivate it.

ThE "Tropical AqRiculturist." - The fourteenth volume of this periodical (pabliabed a Colombo, Ceylon, by Messrs. A. M. \& J. Fbeacsoy) is now completed. The periodical furnisher monthy a valuable summary of information ensential planters in all tropical countries. Accaracy an atraightforwardness are conspicuou featuren in in management, $n o$ that the fourteen volumes conatity a veritable encyclopædia on the abjects of tropical
agriculture.

Cheshunt, Warmley, and District hoai Cultural Mutual Improvement SocietyThe fortnightly meeting of this flourishing noeieg was held on Tharsday last. Mr, Wm, Harang presided, and there was a good attendance of members. After the minutes had been read, $M_{p}$. W. L. Yates delivered a lecture on the caltimaion of the Peach and Nectarine. At the clone, an interesting discassion ensued, relating to dineaed brancher cansed by gamming; on manaring and on bliatered foliage. Mr. H. Rasmussen gave details of the calture of Peaches in France, together mith the names of varieties. A hearty vote of thaiku was accorded Mr. W. L. Yates for his lecture, The next meeting will be held in St. Mary'B Halh Cheshant, on September 5, when Mr. James Doogus, F.R.G.S., will read a paper on the Carnation. Mr, George Paul will preside, and will be aupportod bo the leading gardenors of the district.

Dahlia Show at the Royal aquariumThe Annual Dehlia Show is to be opened on Tandy next, and continaed on Wednesday and Tharday, at the Royal Aquarium, Westminter. The entrienaro very promising, and the show will include Gladiolu and early-flowering varieties of the Chryanthemum All typen of the Dahlia will be on view, bat apecild interent is attached to the "Cactus" varietian, of which there will be a apecial exhibit. The Gladiolu will be more than equal to last year'n diaplay, and the National Chryanthemam Society have arrauged for an extenaive exhibition of the early varietien.

Hallstorm at Harpenden.-A terrific hail storm occurred at Harpenden, Herts, about 4 o'cloos on Tharaday morning, August 22, doing an immenwe amount of damage to property; some of the hailo atones being 2 inches across. Mr. Phillips, onna of a number of glashouses, had one side of alld them completely riddled, hardly a mound pare of glass remaining; while Mr. Purrotr, who ons about $104,562 \mathrm{sq}$. feet of glans, had also a greet amount of it broken, and mach damage done to Graper, Cucumbers, and other atock. All the gess broken was 21 cz . Buth narserymen had minely insared in the Nurnery men's Hailstorm Insurance Ofo $^{\circ}$ poration, 1 \& 2, King Street, Covent Gardea, W.C.

The Royal Parks at Stockholm.-y Milner is entruated by H.M. the Kive or Swain with the laying oat of a park of 1100 acres. Tha plan: have been approved, and work has been colvo meaced, with an English foreman to auperinted the workmen.

Aaave a ericana.-Mr. Ushre, of Wooditods House, Golder's Green, Hendon, obligingly end wh a photograph of a fine Agave, 25 feet high, noll coming into full bloom, and, placed againt a bacto groand of trees, is aingularly effective.
"THE LADIEG' GA ETTE."-This little paper in se it name aggesta, chiefly devoted to topics irs and ing to ladies. Gardening note are parymplit apon bulbs for winter flowering, and apon decont house-fronts. The price of the journal is now to bo a penny weokly, and Memars. Coucnagriden ate th il congratulated upon the general sppearance of min this amaller aize, and upon it anccess among competitors.
 bedded-out plante at Manchester Roya is now brilliant in the extreme. The few days have fored the extreme. into a mas of for
beanty. One is pleased to see that the powerfal contrating or, we ought to asy, killing colours of yellow and acarlet, yellow particularly, is toned down. Most of the arrangement we came acrons, and the yellow overpowerall other combinations. Huw pleat ing it in to see here the old woft lemon-coloured Calceolaris asplexicarlis in some of the groupa ! indeed, we have not one among the noveltie to compare with it. It is a bit rambling in growth, certainly; bot resting in Centaurea ragaina, or some other proper thing to act as a frill, it is more than capti-vating-only we mast not have too mach of it. The Antirrhinam: here, too, are most atriking, a they are floriferons, and how easy to get! a hilling
ander the presidency of Mr. B. Ladiams, F.R.H.S., the lectarer on this occasion being Mr. J. Miles, gardener to Mr. W. Pregin, J.P., Portemood House. Practical bints were given by Mr. Miles on the time to gather fruits, and the mont convenient method of doing so. He gave a description of his enpeciallybuilt frait-room, in size 40 by 12 feet; and drew attention to the necessity of good ventilation and the maintenance of a tempersture of about $40^{\circ}$. He touched lightly on the colouring of Apples. A lively discasion on packing fruit for transit followed the leciure; and at the close a hearty vote of thanka was accorded the lecturer. A good display of fruit and duwers was made by the member.


Fia. 49.-polycychis lehmannt.
(From a photograph by Mr. Lawrence. For description, see p. 192; general colour yellowish-whito: spotted purple: lip, white fringed.)
packet of aeed will farnish a good bed; and now that We have such an is meen here, a dwariness obtained from proper selection, the colours are quite like the rainbow, and although there is a little formality, it is not nearly so pronounced as in any of the Pelargonium, Calceolaria, or Lobelia groups. There is an easinese of contour that pleases the practised eye. The Pentatemons, too, are in evidence here, and what a glorious diaplay they make! True, Mr. Findlar doer not introduce these into his formal bedding groups ; be has them in detached beds in the grase, but acting as foils to the formality of these erpentine desigas, which thow off to advantage the low-growing hero of beddern. Thene old-fanhioned flowern catch the eye, and even are useful because they can be knifed away for bouquet work without affecting congruity.

Shirley and Surrounding Districts Gardeners' and Amateurs' Mutual ImproveMENT A88OCIATION -The monthly meeting was held at the Parith Room, Shirley, Sonthampton,

## Home Correspondenoe.

sLuGB descending by a line of 8lime. It is now some fifteen years since Mr. Warner called attention in the Gardeners' Chronicle to the fact that slugs have the power of letting themselves down from a plant or rafter by means of a glatinout matter which they exude from their tails. I remember at the time some were inclined to smile at this assertion. I had seen the mame kind of thing myself, and I well remember calling my employer's attention to the fact when at $D$ ownoide, as a slag wat dencending over a Madevallia; and it it quite clear, in my mind, that while at Highbary, Birminghaw, I saw a slug on the flower-apike of an Odontoglownm, and in order to prove if tobacco would prevent them cramling up the apiken, I placed a piece of "ahag" tobacco on each wide of the alag, and stter going to and fro a few times, it let itself off very ulowly by the slime from its tail. Your correspondent mentions that no one rasde any remark upon this question when first it was mentioned; my excuse is, that I accepted it as a well-known fact, and believe that alag (nome kinds, at leant) have the power and
intinct to make ate of the alime from their body either as means of encape or for the parpose of obtaining food. C. Woolford, The Priory, I. W.

DORYPHORA 8A88AFRA8.-The interenting note on the above ovar the eignatare "M. T. M." in your iseae of Jaly 13 invites an additional word or two. The plant will be found in Meara. Jab. Veitch \& Son'r Caiaiogue of Greenhuse Plants, indicated at having ornamental foliage. I procured a plant from that source three gears since, and from its not being liased in the stove section, placed it in a conmervatory. It has made but little growth, and is found to need repotting. I am glad to adopt "M T. M's" advice, ard heve removed it to the intermediatehouse. Dorvphora eansafrac in mentioned in Lindley'a Tregetabie Kingderis (1847) follow: "Tre wood of D. saseafras, celled Susemfrae in New Hulland, is anid to scoell like $F$-anel." I muat point ont an error into which Mearn. Voitch have falien in giving
 Tae S cuafres wood of madicina is derived from Sustairas Cffisinaly, Nees (Laurus Stenafram, Lino.). wrowing over extenaive diatrich of the C uited Scates. Baltimore if the cbjef mart for ita diatribution. R. Reynolds, Leeds.

KNIPHOFIAB.--I have now some mont dintinct and b-astiful bybrid Kuiphofio in good bloom. Lechenis, clear apricot-yellow; Surias deep orange; Priniden: Cleveland, very fiae pikp, and a free blocmer; Acrantiaca, one of the largest head and freest bloomer of all my plante, producing nineteen heads this year. I hope also to bloom bhortly for the fint tinoe the Luichtinian hybrid Titumph, said to be the bandsomest of them all; and also the pretty little species N-lsoni, which bloomed with me lavt jear in the second year from seed. I have also poriced a caricue fixed difference in the order of opening of the diff-rent bybrid Kuiphofis; those in which the blood of $\bar{K}$. Aloides predominates, all commence to open at the bottom of the spike, and En on apwards. Those in which the blood of K Leichtani is atrongent reverse this order, and commence to oprn at the top of the sike as Leichtlini always duen, while the bybrid of $\mathbf{K}$ comosa commence to opan in the middle of the apike and go on up sud downwards. W.E. $G$, queenstown

GIANT LETTUCEB. - I naw recently nuch very fine Paris White Con Lettuces, of what is known as Milton' Superb White strain, growing in the gardens at Maiden E:legh, Reading, that I anked Mr. Tarton to weigh one. A good example was, therefore, twisted ont of the groand and pat on to scales, when it was found to be $4 \frac{3}{4} \mathrm{lb}$. in weight. The stock was very true and even throughoat, and premented unqueationably mome of the finent and most solid Luttaces I have aeen. The anme firm's Favourite Cabbage Lettuce alwo showed not merely remarkable siza, bat muprising solidity; the hearts were of the size, roundness, and almont hardness of a good Drambead Cabbage. Those who want balk in salading will find thee varieties to give them all they may dexire. A. D.

CYPRIPEDIUM $\times$ LORD DERBY.- Owigg to an error of mine, this plant was certificated (F.C.C.) on Augut 13, 1895, by the Royal Horticultaral Society' Orchid Committee an Cyp. $\times$ Mastaianam superbum. To-day (August 2i1) I was able to correct the error, and the plant wan named as above, the name given it by it owner, T. Statter, Eaq, being now restored to it. It came about in thisway. A cat apike of two grand blooms came before the committee, named "Cgp. $\times$ Lord Derby" $=$ E. Rothachildianam $\times \mathrm{C}$. auperbiens. I consalted my records, and saw the entry of this parentage, only reversed, against C. X Masaianum. I informed the committee, snd we then had a plant and a cut pike of C. $\times$ Mamasanum brought for comparion from group in the hall. Mr. Statter's hybrid was infinitely the finent, and "superbom" was added to its proper name (according to my entry) of Manainam. Some discusaion at to the parentage of Cyp. $\times$ Mananianum enaued, bat not eufficient to prove I had made an error. The plant was booked, On returning home, I conulted more records, and found the error. I had written "superbiens" instead of "superciliare." This materially altered the case; and now opened another complication. Crp. $\times$ W. R. Iae (A.M., Aquat 14, 1534). Wan the realt of Cyp. aperbiens $\times$ C. Elliottianum (which is synonymous with Rothachildianum). I at once wrote to Mr. Statter, explaining the case, and atating that now the name again must be altered, for reverse crosse were regarded the ame one as the other. Mr.

Statter's reply was good-natured in the utmost, he being very disappointed that his proffered compliment to Lord Derby had been upaet. We decided together to try and correct it at to-day's meeting, at which I explained the whole matter, and for compariten we had the apise of Lord Darby, and Mr. Macfarlane's admirably executed painting of it, and Cyp. $\times$ W. R. Lee. This latter plant Mr. Statter told ua was dead. Therefore there was not another plant of the same parentage that had bloomed which was alive. The committee appreciated this fact, and it was carried unanimously that "Cgp. $\times$ Lord Derby" be Mr. Statter's hybrid's name. This action of the committee enabled me to eacape from a position assumed by taking a false entry to be correct, when it was the reverue. (Moral. The whole of the members of the committee ought to keep records
and check one another. Perhapu way my readera, and check one another. Perhape ary my readera, tial thing they do not"-vide thin case in point.) De B. Crawshay, Roseficld, Sevenoaks, Kent, Aug. 27, 1895.

Chiswick.-May I sak if it is a fact, as atated by Mr. Peter Barr in a contemporary this week, that what he calln a "atarvation allowance" of f1624 15s. 1d. is the amount apent on Chiswick gardens (some 12 acres in extent) annually? I offer no comment on the disposal of this anm, bat would like to say that I have known, and know now, the annual expenditure of some of the beat kept and most expensive private gardens in the conntry, and the above figare is from two to three times more than what is uasilly allowed to pay all expenses, in proportion to extent; while most gardens at the present time cost probably mach less even than that, while mach is expected, considerable reductions made on auch redaced allowance by staff sold, and no "asaistant atadents" thrown in to help for which nothing is charged. Few of our big gardener's real friends would think of going into hyaterical lamentationa over a penaion of $£ 180$ a year ander thene circumatances. Head. [Oar correspondent is evidently not aware of the circumatances of the care, and in particular of the large amounte spent in repairs and renovations necensitated by previous neglect. Ed.]
Why araujia albens does not catch
The CODLIN moth.-la the number of the Gardeners' Chronicle for August 24 is an article on the moth catching habits of A. albens, which I presume is the same plant as Phyianthus albens, [ [es] often alluded to, and probably more tban once figured in these columns. The article concludes as follown:-"It is, however, a singular fect that, in New Zealand, where the plant has often been cultivated for the express purpose of destroying the detested codlin-moth (Carpocapas pomonella), that wily insect declines to enter the trap." The colonists seem to have argued somewhat in this fashion:-Here is a plant, the flowers of which catch motha by grasping them by the tip of the proboscis, and holding them till they die. C. pomonella is a moth; therefore, the flowers should catch it. It does not appear to have occurred to them that there are moths and moths. And if they had compared the mechanimm in the tube of the flower with the mouth-parts of the ineect, they would have seen at once how utterly impossible it is for the Aravjia to catch the carpocapas, inammuch as the latter has no proboncis capable of penetrating even the shortent diatances down the long tabe of the former. Ponibly, however, as the atorylin given ${ }_{\text {at }}^{\text {at }}$. Mcond-hand, it may be intended for a joke. R. McLachlan.

WHITE WAMRINGTON COOBEBERRY. - It may Interest Mr. Dow to know that his discovery of a white-fruited aport on the Red Warxington in not the firat that has been obwerved and perpetuated. In the horticultural department of the North British Agriculturist for $1850, \mathrm{p} .554$, is found a very interenting
article from the pen of the late Mr. William Gorrie article from the pen of the late Mr. William Gorrie, relating his discovery of a similar sport in a PerthMire garden, as also an editorial note from the late
Mr. Charle McIntosh, of Dalkeitb, detailing the excellent quality of the frait. I may aluo atate that ancellent quality of the frait. I may also atate that Measrs. Lawwon, Edinburgh, by Mr. Gurrie, and the writer being one who astinted in stocktaking for some years in the fruit department there, in 1856 wome bundred of fine saleable plants then exiated; on onquiry some yeara afterwarde, I accertained that the variety had degenerated in growth as to be I have not known of it being for nearly forty jears I have not known of it being either in commerce or mors permanent exitence. \&cotland, Eavt. have a

THE RECENT SHREWBBURY BHOW.-The committee which controls the fortunes of this really wonderful horticaltaral exhibition recently pablished a liat of all the numerous gifts they had locally made from their arplas funds, amoanting in value to several thousands of pounds. All honour to them. Bat looking over this list, I failed to notice any donation being made to either of the great Gardening Charitien. I trust there can be no harm in respectfully inviting attention to the needr of these charities, and to point out how valuable and helpfal they are to gardeners who so largely help to create those magnificent shows for which Shrewsbury is so famous. Possibly it is bat needfal to invite the committee's attention to the Gardeners' Benevolent and Girdeners' Orphsn Fands to secare as a memento of the brilliant success in every way
which attended their recent how, of handsome donations to each fund, and thus identify the Shrewabury mociety more clonely with horticulture. $D$.

POTATO dIGGING IN IRELAND.-Your artist correspondent on p. 133, of August 3, gives a very hopeleme looking aketch of poor Pat digging his Potatos. many places in the south of Ireland, and have come acrons a few such cases, but your reader must not be misled and think that all Potato patches or the people who till them are all alike. A friend of mine living near Tipperary, told me that the land in that county is some of the beat he has ever tilled and pastured in Ireland, and his crops and cattle thowed it. Potatos, as we know, are the chief food of the working classes in England, Scotland, and Ireland; every cottager and peasant who rents or owns some land, grows them. The varietie grown are Flounders and Champions, and no one can perauade them to grow any other varietie. The Potato disease is not known to them by any cientific name, and all they know is that the tubers are bad, and they never try a remedy againat the disease, although a few that I know have tried the eprayer, but they said that it broke down the top too much, and would not try it again. I have found in Ireland that the poorer the land the better the Potato crop. I have the finent crop this year I ever had, the land having bad no manure for three yearm, and I have seen no trace of disease up to the preaent date, but rotation in cropping hay, I think, a great deal to with this. $T . S$.

BUD. GROWTH.-On some of my Rhododendrons I notice that at the ends of the shoots both flowerbuds and leaf-buds have been formed during the summer, the flower-bud being terminal, the leaf-
buds lateral. Nothing ancommon in this, buds lateral. Nothing ancommon in this, one may asy; but what in interesting is, that the leaf-bude have lengthened into shoots, whilat the flower-buds remain buds. Why should growth go on in the one and be arrented in the other, the period of formation and the conditions being the mame in each case? $X$

The weather and fruit trees.-The past dry aummer and recent abandant rain have prodaced a curioun effect on an Apple bush (Stone's Pippin) growing in the orchard at this place. About one-half of the namber of branchen are loaded with fruit, and in consequence have made little growth, except extenaion. The branches carrying no fruit made hort growths, atadded with flower-bude, which matared during the dry weather. Since the raina came these have developed, and the tree now presents a picture of flora and pomona auch as I have never seen before, every branch baing either loaded with fruit, or wreathed with bloom and tender leavee, being in about equal proportion, the tree has a charming effect. The frait-buds on other trees in the wame orchard thow no sign of moving. M. Webster, Kelsey Park, Beckenham. [A similar condition of thinge is to be witnessed at the Royal Horticultural Societp's Gardens at Chiswick, where a quarter of Apple buahes, transplanted late in the epring. were, an a consequence, at a standstill during the warment part of the summer, and they are now fuil of blonom, and
making a little new foliage. ED.]

VEITCH'S CLIMBING FRENCH AND BUTTON'S TENDER-AND-TRUE BEANB.-In the report of the Fruit Committee meeting held at Chiawick on the 16th inst., it in atated in the second paragraph (p. 218), that the committee having seen the abovementioned "two Bean! growing here (Chiswick) together under precisely similar conditions, came to the important conclaion that they are absolutely identical, but that they all the same leave to others to determine under which of the above names the variety hall hencefurth be recognised." At the raiser of "Veitch"' Climbing French Bean," I nhould
like to mention that the decision of the Frait Committee (the correctnens of which I do not for moment question) raises a very delicate, bat all the of-shall I ay-serious questions, inasmuch as the Bean which the Fruit Committee decided on the 16 sh inst. to be identical with "Tender-and-True" was, as a matter of fact, sent to Chiswick for trial together with a full description of its habit, \&on April, 1885 (nix years before "Tonder-and-Trus" was anbmitted to the Rogal Horticultural Society for trial at Chiswick), and for which I received the official receipt, signed by the chairman, and dated, 1 believe, April 9, 1885 . And this being the of
commanication received by me from the Ropal Ho ticaltaral Society in reference to my then Climbing Canadian Wonder Baan (now Veitch's Climbing French Bean), and seeing that no mention was mado of it in the autumn mport of novelties tried at Chis wick in 1885, the question very naturally, and jutly, arise as to what became of the "Climbing Frasch Bean" sent to Chiswick for trial in April, 1835, and which, ton years later (1895) is pronounced by the Fruit Committee of the Royal Horticultural Society to be identical with one (Tender-and-True) to which that body had granted a Firat-Clas Certificate at Chiswick on Sept. 3, 1891? And now it seems that the name under which the variety is henceforth to be recognised is left to others than the Fruit Committe of the Royal Horticultural Society to determinethat is to asy, the question as to which name the commercial right of priority belonge has to be determined. The answer mat be obvious enough to all who take the trouble to read the above facta. A reference to the connterfoil of the Chiswick "Record" of seeds, \&c, received for trial in April, 188jे, mill conclusively settle the question of "commercial right of priority." As regintered in the book referred to will be found "Climbing Canadian Wonder Bean. Ten years have I kept the abova-mentioned fact from the horticultural prean, and had it not been for the turn which event have recently taken, probably I should never have referred to the matter in print H. W. Ward, Lonqford Castle, Salisbury.

Mr. barron's retirement.-H3d Mr. Barron' reaigaation been voluntary, the mere authoritative announcement that he had reaigned, and that hir servicen were to be rewarded by the Conncil with 8 liberal pension for life, might have fitly closed what to very many must have proved a painful incideat But if he has virtually been hanted out of the oficte he has for so long enriched, then the gardeners of the country are entitled to the fullent explanation from the Council. In your first notice (Auguet 3, p. 138), after referring to the innumerable dificultier and precariousness of Mr. Barron's ponition for may years, you state in true and forcible words, which al loyal horticulturinte will heartily endorte, thiswid has been put into good order, and horticulturith long to see it the exponent of progrenive horticalture, and the trial-ground for all that is promining and inatructive. They do not care to see it com-
peting with market growera in the sale of Graper, and they think that the services of the staff might be more profitably employed than in giving for distribution among the Fellows plants which are readity to be purchassd for a few peace at the nesrem florist's." Thene worde are true, and in them nome of us read a probable cue to the reaiguation of Mr. Barron. Bat a writer in the Garden diapela smen illusions, and makes matters no bad, that the com tinued ailence of the Council would prove a ariow blunder. It seems imposnible that such a mocioj should have acted in the manner here described, and should any sach report to obtained and signed havo reached the hand of the Council, one might haro expected that they, of all men, wonld have felt that the proper place for it was the fire. I fear the Fallom, and especially the fraternity of private gardeners, whed not now be asticfied until they know who appoint the this special commitsee of eapionage-and withoat mes knowledge of the Garden Committee, the privato and addresses of this private committee of privaso gardeners, and whether or not the Garden mittee of the Royal Horticultaral Society hat aloo retired in consequence of this indignity heaped apva
it? D. T. Fish, Auguat 19 .

The dimminal of Mr. Barron, forsooth! The gardeners of the country would an woon have expecter to have heard of the dimmisalal of the Council of the Society! I am always loth to condemn either of before I am fully informed of the whole dotam antl both sides, but the question has now anamed st
without the fullest diuclosare of the reasons for the procedurea taken by the Council, and the names of the persons who prompted that body to act as it has done.

Having read the comments which have recently appeare ${ }^{\text {l in }}$ the horticultaral press on Mr. Barron, the superintendent of the Royal Horticaltaral Society's garden at Chiswick, to-day I visited and criticied the work which was being carried on in the experimental gardens of the society. I was mach atruck with the great improvement in the condition of the place and in the caltivation of the plants, the success of which is due to Mr. Barron. A few yeary ago, when I was on the council with Mr. Voitch, just after the society's fortunate expulsion from South Kensington, and when we all hoped that its pernicious influences had been buried for ever, the council was compelled from lack of funds to atarve the garden, the houses were dilapidated, and the place was very much under-manned. To-day I found the houses for the most part in good working order, although two or three would be better if replaced by more modern atructares. The collection of Apple and Pear-trees I have never seen in better condition, and it contraste favourably with my own. I saw no evidence of blight. Of course, in anch a large collection there always mast be some treen which are out of healtb, and which require to be renewed. The collection of Figa looked well; I know of no place where such a collection can be found. Thone interested in Grape cultivation should make a atady of the collection. The hardy annuals and herbaceous stuff looked grand, and no did the plots allotted to the seed trials. I cannot conceive the peason why the council should have called apon Mr. Barron to resign. He is a man who in known to every horticultarist whose opinion is worth heving, to be atraight and unbuyable, a quality aboolutely necessary to give confidence to the trader and amateur. Those who are intimately acquainted with the idiosyncranies of gardeners, know the value and the rarity of these qualities. If it is true that the Chiswick, the Frait, and the Vegetable Cummittees who visit many time in the year the gardens, and who are responaible for its management, have not been conaulted by the Conncil on this matter, and that outsiders have been called in to report, the conncil have pasaed such a vote of censure upon the members of these committees that no man with a spark of self-respect conld continue to serve upon them, and it is for them to renign en bloc. If it, however, meane a new departare in the management of the gardent, the fellowe hould have been consulted and made acquainted with the proposed new acheme. If it is intended to attempt to make the gardens a profitable undertaking, a sort of bastard market-garden, the Mizens and the Pouparts would rery moon knock the bottom out of such a competitor. If, however, it is intended to convert the garden into a third-rate nursery for the sale of cheap plants, the Banyards and the Pearsons can tell the Fellows that such a scheme mast result in failure and bankraptcy. But should the conncil deaire to make the gardens into a public resort for narse-maids and their followers, wuch as is to be found in London quarse, the sooner the society gives up these gardens the better, for to apply the eabacriptions of the fellows to either of the parposen wonld be little better than obtaining money by false $p$ etences. It is my intention, as an owner of an expurimental garden, and one who for over twenty five years has some slight acquaintance with the work which can be succeasfally carried on in mach a garden, and one who loves horticulture for horticultarn's sake, at the first opportunity I have determined to ank for definite information as to the council's remarkable and anintelligible action. Should the answers which I receive be not astisfactory, I shat feel it my daty to submit sach resolations for the consideration of my brother horticalturiats an the answers may neem to neceasitate. I feel that for the society to lose the services of Mr. Barron, who has still many jears of aefolal work left in him would be nothing lese than a diagracefal job, and would be prejadicial to the beat interests for the advaocement of horticultare in this country. A. $\boldsymbol{H}$. Em.e. The Grange, Carshalton.

APAICOTS FROM BTANDARD TREES. - I am mending you some specment of Apricot grown on a atandard tree in the middle of my garden less than siz miles from Charing Cross. In the exceptional year, 1833 the tree bore over 600 fraits, and this year it ban done very well; and even last year, in maatiafactory weather, there was a fair crop, for altbongh the fruit did not matare to the extent one
could have wished, it made excellent prenerve Possibly, if the attention of fruit-farmers is called to the subject, the thoussads of pounds which are paid annually to the foreigner for this fruit may be kept in the country. M9 tree, which was brought from France, thriver well in the London clay, is and alwaya has been very healthy, and has never had an oznce of manare or a particlu of attention. What more could the farmer want? B. G. Jenkins, West Dulwich, August 26. [Tae variety sent by our correapondent was that capital early one, the Breda. Ed.]
kölreuteria paniculata. - This Chineee tree is well adapted for pleasure-grounde, owing to its pretty Acacia-like foliage and yellow-coloared inflorescence. I recently saw the tree in perfection in the grounda of Mr. H. J. Selwyn, Eatwood Hoase, near March. The tree stand on the lawn near the residence, and is ahout 3 ) feet high, with a head of about the same width, and on every shoot (and there are thousands), there is a beautifal panicle of flowers, 1 foot long. A close examination of the flower reveals a tinge of red in the centre. It in not a tree of rapid growth like the Ailanthus, but the stem of this apecimen is quite 5 feet in circamference at 3 feet from the ground ; and I have lately measured the stem of a Kö reateria growing here, which was planted fifty years ago, and find it to be $3 \frac{1}{2}$ feet at 3 feet from the groand; the appcimen seen at March will therefore be of considerable greater age. 4. Harding, Orton Gardens, Peterborough.
robe mrg. W. J oqant (byn. belle bie. BRECHT).-Herewith we enclone you Mensrs. Siebrecht \& Wadley's letter, correcting the statement made by them in your issue of June 15 which we will be glad if you will insert in your next isene. On February 2t, 1893, this firm wrote to unsaying that they wished to change the name of the $R$ from Mra. $G$ ant to Mra. Cleveland, and that thay hoped we would not oppose them. Wo replied on March 8 as follow:"With regard to your desire to change the nama from Mra. Grant to Mra. Cieveland, we cannot off r any serious obj ction, although we moald feel sorry that auch should be done." Alex. Dickson \& Sons Sons of Newtownarde, Ireland, and in juatice to them, we wish to correct our tatement in our letter of June 15 as to the re-naming of $\mathbf{R}$ se Mra. W.J. Grant. We asid at the time of purchasing the $\mathbf{R}$ se we had Mesern. Dicksons' consent to change the name. In this we regret we were in error. It wat in the month of March following (1893) that we received written permiasion from Mesars. Dickeons. Siebrecht \& Wadley"

## SOCIETIES

## ROFAL HORTIOULTURAL

Aucost 27 -An ordinary meeting of the committees of the Royal Horticultural Society was held on Tuenday last in the Drill Hall, at Weatminater. Hardy and half-bardy flowers and ennuals were exhibited largely, and included firet-rate collections of Asters and Gladioli, and some novelties in Dablian. Orchids were not very numercus, bat an intareating diaplay was present. Before the Fiuit Committae were exhibited large collections of Apples, Pears, and Piams, but there were few firstclass novelties, the only award being for a new dessert Apple, and an ornamental Crab.

## Floral Committee.

Present: W. Marthall, Esq. cbairman; and Meare. O. Thomas, J. Fraser. C. T Druery, H. Herbet. J. Laing, R Owen. G. Sievent, J. H. Burr, G*O. Nicholson, C. E Prarkon, G. Gordon, H. S. L onard, H. Cannell, J. D. Pawle, J. T. B Peë, H. Tumer, G. Paul, C. Bheck, and H B May.
Mr. M. Paitcrard, nurseryman, Christchurch, had a pretty group of hardy flowers, in which were vory fine b'ooms of Gaillardias, large sprays of Lobelia cardinalis variety. Robert Parker, of excellent colour; Rniphofia (Tritows) Priszari, a large bold variety, recommended an Award of Merit. Lilium tigrinum splendens and $\mathbf{L}$. $\mathbf{t}$. plenum were well shown ; the pretty but seldom seen Astrantia Biebersteini was noticed; and Eupatoriume purpureum. varieties of Eelianthus, aud muy other good things were included in this exhibit. Scabiose cuncasica albe wae recommended an award of meri (Silver Ranksian Medel).
Messrs. PaUL E Box, the Old Nurserien, Chenhunt, had a collection of herbaceon Phlox in variety, most of them with large flowers, exhibiting considerable variety in colcar. large flowess, exhibiting considerable varioty in colcar.
 flowers (Silver Flora Medal)
An excellent collection of Phrynium variegatnm planta were shown by Mr. J. Oy vrard, Child's Hill, Kilburn. The plante were in 7-inch pots. large, bushy, and capital in colour; also some fine plants of Maranta major, with green leaves, and about 2 feet high (Bronze Bankoian Metal).
From Messra. Hueg Low \& Co., Clapton, were exhibited some nice plants of Krica mawmona, E. elate, a variety thet
 large, highly-coloured blooms, and its distinct and dark
coloured foliage. An improved form of Alocasia Lowi was likewise shown, in which the large veins are whiter, the
under-side of the leaf deeper purple colour, and the leaf broader than in the ordinary form.
There were a few exhibits of new Dahlias staged, and these included a stand from Mr. Chas. Turver. Royal Nurseriee
Slough. Varieties in this exhibit to which an Award of Slough. Varieties in this exhibit to which an Award of
Merit was recommended were Duoglas, a neat, faif-sized Pompon of rery dark crimson; Purity, also a Pompon, white, with a little cream about the centre; Nerissa, a charming little Pumpon, o! very delicate rose colour; and Fabio scarlet petals, and yellow at the base. Large show varieties similarly honoured were Mabel Stanton, cle ir full varieties aimilariy honoured were Mabel stanton, cle ir lul
yellow, good form, a little flat in centre as shown; and Dante, yellow, good form, a little flat in centre as shown; and Dante, which is very apparent. Among Cactus-flowered varietie which received Awarde, were Beatrice, rose-coloured, a com paratively flat bloom; add Leonora, of warmer colour, and the petals recarved towards the centro-a very preity and attractive fluwpr. Many other good varieties in each section were incl uded in Mr. TUBNER's collection.
Measrs. H. Cannell \& Sons, Swanley, Kent, exhibited a dozen fine bloomy in three varieties. These were all largeflowered bloms. Le Colose, red; Siam, a Aaked Vaniety.
crimson, purple, and white; and Grand Duc Alexis, handsome

Another collection was from Mr, G. Harmis, Scad's Hill Hou-e, Orpiagton, Kent, who had a doven very nice blooms. in four varieties.
Messer. J. Priv \& soxs, Norwood Bond Nursarien, 8.E. etaged aprays of a Pompon variety, named Tom Psed, a rosette of pale red with buff reverse.
A box with a dozin and a hall plante of Saxifrage marmentos tricolor superbs was exhibited from the Royal Horticul. tural Scciety"s Gardens at Chiswick.
Hybrid Fuchaias in sprays of considerable variety were shown by Mr. Prillip Fry, Addingtoa Greon, West Malling, and were of some interest.
There were very large exhibitn of Anters from Meemrs. Virich \& Sons Boyal Esotic Nursery, Kiog's Road, Chelaen, and from Mesgrs. DOBBIE \& Co. The large and splendid collection from Mesers. Veitce \& Sovs had been lifted from the ground, and putinto pots. The diff-rent sections ware fully representer, German Emperur. in white, blue, red, and other coloure, various coloured varietiee of the Pgony-flowered Perfectiou t. pa. crown or Cocardeau Asters, with whice centre; Pompon imbricated, dwarf Chrysanthemum-fluwered, rose-flowered. Jewel Asters; Peony flowered globe Asters, \&c. A lew plants of the Diadem Aster had a nuwbur of emall blcoms. something lifelarge Daigiee, white and red florets mizen; and a go: batch of a rose bediog Anter was good (Silver Flori Medal). Mesar8. Dobs'E A chllection from the bursery at Orpington, Kent. contained very good blooms in quality, and there were sprays of most of the sections above noticed. A pretty show of Comet Asters was made also, and the colours generally were commeadable (Silver Banlasian Medal)
Messrs. Kelway \&c Son Lanaport, Somersetshire, stager] one of their remarkable exhbity of Gladiolus aprays in large, and fipely co oured. From a number of attrac tive novelties, the following were recommended A wand
of Merit: Kate Rose, a bloom of the largest with redcish-purple base, the same colour extendage alomes centre of bottom petal; Brantford, an excasding rich orisuan very glowsy: and Dolops, very large, richly-colourad flower and proctily-marked throat (Silver-gilc Elora kedal),
Mr. J. F. McLeod, ET. 6o J. E. Mongin, Enq, DJvar House. Boehampton, Surrey, thamed a magaificent group of Crotona. remarkablealise from the exeeptional cultivation the plants exhibite ${ }^{2}$, and the reprementative character of the varieties, many of wich are recent ones. Broad, medium, and narrowleaved rericties wore apranged with a view to obtaining the best effect, and were liberally interapersed with Adiantum cuneatum. Among the most telling broad-leared varieties were Reidii, Mortii, Andreanus, and albicans. The marrow and medium-leaved varieties were more largely shown, an we noticed very pretty plants of A;gurthirnsis, Golden Bing. pistaratus, Lord Chelmeford, Laisgi, Nestor, angustifolius, Mrs. Doman, and many others (silver Floza Medal).
Mr. T.S. WARE, Hale Farm Nurseries, sent a large numbet
type, and others with blood red stripes along the petals in areater or lees degree. Also a apray of L. nepalense, and a fem good varietier of Dahlise.
From Meears. H. CaxsELL \& Sovs, Swanley. Kent, was exhibited a collection of Cocksecombs, and a grod number of pots of some of the best varieties, and some excellent plants of seedling doablo Begonias were also shown by Moesrs. CANNELL (Silver Flora Medal).
A very extensive group of hardy flowers came from Mesess, P. Bark \& Sons. King Street, Covent Garden, London. Wo noticed many excellent varieties of herbaceous Phloz, Gladioli, Marigolds, Pyrethrume, Helianthus, Gaillardias, and other teasonable plants (Siiver Flora Medal).
An Award of Merit was recommended to the ornamental Crab, Joo. Downie, shown by Messrs. Geo. BuNyARD \& Co. shape, and highly coloured.
For Messrs. KELWAY \& Son's prize, offered for the beat collection of twelve Britiah-raised Gladiolus gandavensis vars., there was only one competitor, namely, C. F. THOMPSON,
Raq, Llandaff, Cardiff (gr., Mr. Mann), who was awarded the Raq, Llandaff,
Medal otiered.

## Orchid Committee.

Present : Dr. M. T. Mattert, in the chair ; and Mearrs. De B. Crawshay, T. Statter, J. Jacqué, E. Hill, H. M. Pollett, W. H. White, J. T. Gabriel, H. J. Chapman, T. W. BJnd, W. Cobb, A. H. Smee, and H . Ballantine.
An interesting if not a grest number of exhibits occapied the labours of the committee on this occasion, although There were not many of extraordinary merit amongit them. Chelsea, came the followiog: Cattleya Eldorado alba, an entirely white-flowered variety, excepting the throat, which is yelluw on the inside; several pieces of C. Dowiana, nicely bloomed; Miltonia vezillara superba, in colour a rosy-lilac, therefore novel as regards its shade of colour ; Leelio-Cattleya Proeerpine, out of Cattleya velatina $\times$ Leelia pumila var. Dayana. It has sepals and petals of lurid parple, a rich purple lip, passing to a light tint at the apex, and furnished with white lines at the base. The following Cypriperiums were shown, Chas. Canham $=C$. villosum $\times C$. superbum, C. tonsum superbum, a flower caainly green in colour, save for a buff suttusion, sud the dorsal sepal is tipped with white, and lined with light brown-it is a striking variety; $C$. Warnhamiense $=$ Phillipense $\times$ C. Cartisii, chiefly dis superbum $=C$. inaigne Maviei $X C$. Harriaianum, flower of nich shades of brown, at seen in the lipe and petals, greenishpurple in colour as regards the dorsal sepal, which has purpio lines, and an edge of white; the lower sepal is green, with yuple stripes running through it perpendicularly, a distinct and pleasing variety. In this collection, a plant of Vanda Sanderians with extra large-sized flowers, was re-
marked; the rare Grammatophyllum Rumphianum, bearing marked; the rare Grammatophyllum Rumphianum, bearing
a drooping spike a yard in length with greenish flowerg parely arranged on it-the latter are two inches in width, preenish-yellow, with irregular brown blotches. $A$ plant of Coelogyne Veitchi, having white flowers with buff-coloured remains of the onvelope remaining attached to the footatalks (An Award of Merit). For the entire exhibit, a Silver Flora (An Award of Merit)
Mesars. H. Low
Mesars. H. Low \& Co., Clapton, showed Dendrobium speciosum, described in these pages (March $\theta$ last), a small plant, with two or three flowers; Cycnoches chlorochilon, in male and female forms, interesting but not beautiful; BolboWhyllum Dearei; Cypripedium Charlesworthi unicolor, the colour of the lip being the same as that of the sepals and petals, instead of brown; a good form of Lselia elegans ; a beautiful flowered spray of Odontoglossum Harryanum, the best variety of it, with the white lip which turns jellow with age.
Meness. W. L. Lewrs a Co., Southgate, had small groups of Archids, amongt which were noticed Cypripedium Charlesworthi, C. Evenor superbum, a flower with a fawn-coloured ground coloux; petals thicly spotted with purple, and the lip near the orifice furnished with brown striation. They showed Miltonia epectabilis virginalis, all parts of which flower are white, excepting the bese of the lip which is parple. It may improve with age, bat at present it is not apparently of much
monit. Cattieys gigas, C. Parrieonise, Hobenaria Suzannae, and Odontoglosum Lindleyanum, were among the other object shown by this firm.
KDWARD WOODALT, Req., Scarborough (gr., Mr. Hughes) showed a grand piece of Odontoglosana coronarium. Salt's var., recaiving for it a Cultural Commendation. The same exhibitor had a magnificent panful of Vanda coe:ulea of the best type of the ipecies, the flowers measuring 4 inches across. and there were seven well-furninhed flower-apiles. Some Cypripediums were likewise shown.
A aplendid dark-coloured form of Leelia elegans Owenise, with a lip of the richest purple, was shown by THos. Statrer, Rfy., Manchester (gr, Mr, R, Johnson). His other plants consisted of Oattleya grattata Leopoldi, C. Rox, Leelia elegans phasiaty, L. ex. excellens, each differing from the type; LeelioGnetleya Nysa $=$ L. crispa $\times$ O. gigas; C. Gaskelliana alba, C. aures, Dendrobium Phalsenopsis Schroderiamue, fowers of fir sine, the colour light, approaching white; Leelio Cattlfya sebeuals, the last-named receiving an and L. elegans Chelgroap was awardeu a Silver Flora Medal. Merit; and the uf Lalia elegans aame from Fiora Medal. Another plant Ahtom-on-Mersey (Er., T. Staffurd), ria., L, Req. Tynterfield, the same amatear came Levlia-Cattleya, Hardyans, the From croes of L.-C. callistoglosma, C. gigas Sanderiana, having been
used instead of C. gigas. The flower is of rosy-lilac in the sepals and petals and tube, with a lip
shade of purple and of velvety texture.
Mesors. F. Sander \& Co., St. Albins, showed a group of Orchids. There were Habenaria cannea var, nivosa; $\mathbf{F}$. Hardy's variety of Cattleys surea, paler than the type, for which a First-class Certificate was given; C. a. Statteriana, Miltonia vexillaria var. rubella, Burlingtonia pubescens, the white and the rose-coloured varieties of Dendrobium bractescens, D. oruentam, D. Phalenopais Schroderianam in variety, and L.erio-Cattleya Fowleri. For an illustration of this beantiful cross between C. Leopoldi and C. Hardyana, see fig. 47, p. 239. A Silver Banksian Medal was awarded the exhibitor. D. B. Crawshay, Esq., Rosefield, Sevenoaks (gr., Mr.
Coole), received a Cultural Commen dation for a plant of Cooke), received a Cultural Commen dation for a plan
Messrs. B. 8. Willians \& Son, Paradise and Victoria Nurseries, London, N., showed a small group, consisting of
Pachystoma Thomsonianum, white, with a narrow, elongated lip of a purple tint; Odontoglossum Krameri, a flower of pale lilac, \&c.
From the gardens of Sir Trevor Law rence, Bart. (grower, Mr. White), came Dendrobium Hookerianum, a plant with a pleasing inflorescence of lemon yellow-coloured flowers, having a dark parple blotch at the base of the friaged lip (Award of Merit). Other plants consisted of Stauropsis Phillipinense, a plant with buff-colour blossoms of starry shape springing from the leafy nodes of the stem, the lip narrow, and strap-like, and pale lilac in hue; Onoidium hæmatochilum, Catasetum Bungerothi, with unusually large flowers, for which last a Vote of Thanks was accorded.
A. H. Smee, Esq.. The Grange, Wallington (gr., Mr. Cummins), showed a form of Catasetum fimbriatum, Eranthus grandifolius-a remarkable bloom of a creamy-white tint, whose petals, sepals, and lip at the extremities turn of a prim-rose-yellow hue as the flower ages (Botanical Certificate).
Chas. Ingram, Keq., Elstead, Godalming (gr., Mr. Bond), Elsteadensis $\times$ Catt. maxima (an Award of Merit). The bloom has light purpla-tinted sepals and petals, and an intense purple coloured lip, which in spread out fanwise, and is frilled at the edges; at the sides of the throat are bands of a yellow hue. The parent plants were shown, and the child is a decided improvement on them. From the same exhibitor came LrelioCattleya Elstead Gem, sepals and petals orange-coloured, tube white exteriorly, and lips a rich parple colour (an Award of Merit for this last).

## Fruit Oommittee.

Preant: P. Crowlay, Eqq., in the chair; and Meostr. W. Wilkt, T. F. R. Rivers, G. Banyard, H. Pearron, G. W. Cammins, T. J. Saltmarrb, J Veitch, A. Dean, J. Wright, J. T. Milee, J Willard, W. Farr, C. Herrin, H. Balderson, F. Q Lane, and G. Norman.

Mr. J. W. Miller, gr. to Lord Foley, Rurley Lodge, Esher, staged a collection of fruit, including several commendable Melons, a nice lot of Brown Turkey Figs, some Yorkshire Beauty Apples, and a large dish of excellent Hemskirs $\Delta$ pricots (Vote of Thanks).
Mr. Owen Thomas, gr, to H.M. the QuEeN, Royal Gardens,
Frogmore, exhibited a meritorious collection of Plums in Frogmore, exhibited a meritorious collection of Plums in
thirty-eight varieties. Of large red fruits, we noticed Victoria, Autumn Compote, and Pond's Seedling, noticed Victoris, there were Archduke, Fellenburg, Prince Engleheart, Kirke's, Large Black Imperial, Diamond, and others; also Jefferson's, Belle de Septembre, Coe's Golden Drop. Magnum Bonum, Lawson's Golden Gage, Damsons, Bullaces, \&c. Mr. Thomas also showed a pair of nice-looking short Cucumbers, named Frogmore Prolific (Silver Knightian Medal).
An extensive collection of first-class fruit was exhibited by Mesgrs. Jas Veitch \& Sons, Royal Emotic Nursery, King' Road, Chelsea, which included Apples, Pears, Plums, \&ce, in variety. Among two dozen dishes of culinary Apples, we noticed Stirling Castle, Lord Derby, Lord Suffield, and Eeklinville Seedling as commendable. Dessert kinds were represented by Duchese' Favourite, of very high colour: Davonshire Quarrenden, Lady Sudeley, Karly Strawberry, Early Joe, Karry Pippin, Yellow Iageatre, and Worcester Pearmain. There were several dishes of Pears, including Fondante de Curne, Beurré d'Amanlis, Fondante d'Automne, Souvonir da Congrès, tec. Plums were hhown in a lasge number of varie tie, genarally of excellent quality. Several diehes of Peaches from trees in pots were good, and included Barrington, Grawfond's Rarly Violette, and others. An Award of Merit was recommended to an omamental Crab Transcendent, some very The fruits are uncomich wore exhibited together with sprays. conical in shape than thenly highly-coloured, and are much lese conical in shape than the variety John Downie, also Certificated. Two new Apples were also shown, Beauty of Moray,
green culinary variety; and Temple's No, green culinary variety: and Temple's No. 1 , a high-coloured
dessert variety. Neither of these were cartificated VEITcH's excellent collection was awarded a Silver-gilt Kaightian Medal.
Mesars. S. Spooner \& Sows, Hounslow, contributed a collection of fruit in fifty dishes, including an excellent lot of Apples and Pears; also a few dinhes of Plums, \&
Medal). (Silver Banksian
Favouriten-coloured Tomato and plant named Edmonscote Castle Hill, Kaling, W. R, DAviry, Rsq. Edmonscote Houve, beariug French Bean named Syon House Prolific, was shown by Mr. G. Wythes, gr. to Earl Perct, Syun House. Brentford. Mr. A. G. Hoolings, gr. to W. H. HARFORD, Esq., Almondsbury, also showed a very freebearing Bean, with large coloured

A brace of Cucumbers named Eamee' Hybrid was shown by Mr. F. K EAMES, Twickenham. New Melons were my
hibited by Earl Percy (gr.. Mr. Wythes), and Earl Dion Knowsley (gr., Mr. Robt. Doe), but no awards were mader, Knowsley (gr., Mr. Robt. Doe), but no awards were made. dishes of a good Perfection type Tomato named Cansell! King; and Mr. W. Rapley, gr. to H. Grimling, Esq., Hann Weald House, Stanmore, showed a dish of Sutton's Pertection Tomato grown out-of-doors; the quality was very good. medium -sized Pea called Selected was exhibited by Mr. Tro McJlure, Hartley Grange, Winchfield; and from Mr. W Potten, Camden Nurseries, Cranbrook, wore some fruit Malus baccata fructu maximo, a large form of the Sibatin Crab.
Messrs. Geo. Bunxard \& Co, Maidstone, were sea mended an Award of Merit for a rather large dessert $\mathrm{A}_{\mathrm{j}}$, named Williams' Favourite. The fruit as shown is conim very highly coloured, the colour extending almost ovar the entire surface, flesh tender and sweet.
Fruits of a seeding Peach came from the gardens of ha T. D. Aclakid. Killerton, Devon. In appearance the fritu resembled Royal George, but it was a clingstone.

## Lecture on Codiæums and Dracænas.

In the afternoon a paper by Mr. C. F. Bame oa the "Calture of Crotons and Dracenas " wa rail by Mr. Geo. Banyard.
The writer firat dealt with Crotons, and recommended oight temperature during winter of $60^{\circ}$, and in spring about $5^{\circ}$ or $10^{\circ}$ higher. Many of the varieties may be prown without
shading, but during the summer most of them would roquim a slight and removable shade at mid-day. Syringing during the summer months was a very important operation, and should be done in a thorough manner in order to leep sub spider at bay. Drought at all seasons is highly injurious. A good potting compost for the plants would coasist of two parts good rich loam, one part leaf-soil, and some sand. The plants should never want in the least for water, and they should always be given a very light position. The aral method of propagation was by cuttings, which should be made with a clean cut by a sharp knife directly under a mole The pots should be plunged in Cocos-nut fibre or other suitable material in the propagating-case, and the material rept daw at a temperature of from $75^{\circ}$ to $80^{\circ}$. When potting the cuttings off, a lighter soil ahould be used than that reammended for established plants. The ringing procew de might be used with advantage. Seeds of Crotons should be sown as soon as ripe.
Dracenas.-The different types were alluded to briefly, and the particular uses to which they would be advantagsouly fought, and it was necessary to syringe the plants vert thoroughly once each day. The roots should be kept in a regular state of moisture, and the plants watard
whilst moderatoly moist. For potting, \& compost midst be used of two parts fibrous loam, one part lest soil, and one part peat. The Dracrenas were propagated by roots, cuttings, stems, and seeds. Varietice of the Goldiams type should have the top cut off and grown, and the 唯 would continue to break, when each growth might betaw off and struck. Indivisa and australis varieties wore usally raised from seed.

## SHIRLEY

AUGUST 21.-The present was the thirtieth numut show held by this society, and was in every way anccess. Group of miacellaneous planta arrais for effect were a featare, so well were they done.
Mr. Wills, nurseryman, Shirley, gained the premier amad; Mr. Peel, gr. to Mise TODD, Shirley, 2nd. Specimen store wir greenhouse plants were numerous and good. For six, Amys, gr. to Hon. Mrs. Klliott Yorke, Hamble Southampton, won easily; Mr. WrlLs 2nd.
came from Mr. G. Hall, gr. to Lady Louisa $\Delta s H B U R T O S T$ Melchet Court, Romsey. Mr. Mitchell, gr. to J. Whis Fleming, Eieq., Chilworth Manor, won for tuberous Begaive Mr. Wilcox, gr, to Col.W. Sinkins, Aldermoor had the finest Fuchsias, really good examples.
Cut flowers were bright and varied. For twelve Rolat twelve show, six Cactus, and six Pompon Dahlias, and trande four Asters, Mr. Weat, Gr. to J. W IGRAM, Esqu, No Lumin Salisbury, won in all the classes referred to. Mr. Lrale then
won for twelve epikes of Gladiolus-really good exampe won fo

## Fere

Mr. MIT was an important feature of the show. For sis wis Wilcox had the beat Black Grapes, Mr. Mrrcerisis the White, both reprosentative of the kinds staged. Mr. Man Peaches and dessert Apples. Mr. AMYs had a and secured lst prize.
Vegetables were especially numerous. For a colloction sir varieties, Mr. Russell, Nursling, was eamil, Mr. Hollow the prizes offered by Messis. Toogood \& SoNs, Ming ansh gr. to A. Browr. Req.. Shirley, secured the leading anm

## BASINGSTOKE.

Avaust 22. - In the grounds at Eautand, blate ing to Mra. Millar, the annual summer ext. Phat was held, and was in every way a succe.
formed an important feature of the show. 0 . Hours.
For twelve specimens, Mr. Bowerman, gr. to
flowering plants exhibited much merit. Mr. T. Weaver, gr. to W. O. Gilcirist, Beq., Oakley Park, Basingstoke, was 2nd.
Groups of miscellaneous plants arranged for effect were meritorious, Mr. Bowerman taling the lead in this class. Mr. Best, gr. to F. D. LEyland, Ksq., The Vyne. Basingstole, 2nd.
Mr. Weaver won the premieriaward for exotic Ferns with hoalthy examples. Mr. Best had tho best table plants and taberous Begonias.
Mr. Ruseell, gr, to W. Bradshaw, Ksq., Audley's Wood, Basingotoke, Whs lst for Coleas and Fuchsias, both meritorious oxhibita.
Cut flowers were shown in quantity, and made a bright display. Mr. Neville, gr. to F.W. FLIGHT, Esq., Twyford, Winchester, won the premier award for twenty-four and for twelve blooms of Roses, with particularly bright and freeh blooms. This exhibitor also woa for twelve show Dahlias. For twelve bunches of any kind of flower, Mr. WeAVER was distinetly 1st; and Mr. Russeci won in the herbaceous class. Ladies made a creditable display of flowera in a separate tent.
Frult was shown in good quantity. For a collection of six varieties, Mr. F. Cole, gr, to Sir G. Bueselis Swallowfield Parr, Reading, won with a good all-round collection; Mr. Bowerman following. Mr. Cole also won for three bunches of Black Hamburgh Grapes; Mr. Osman, gr. to J. G. $B \perp K E R$, Esq., Ottershaw Park, Chertsey, was 2nd. In the class for any other black Grape, Mr. OsMaN staged well-finished Alicante; and Mr. Cole was 2nd. In the white Grape class, Mr. Bowermar won with Muscats.
Barrington Peaches won for Mr. Bowerman premier award for one dish; he was also let for a green-fleehed Melon. The finest Nectarines were staged bv Mr. Holdaway, gre to Lieut.Col. MAy, Hawlfield, Basingstole.
Apples made a large display. For three dishes, dessert rarieties, Mr. Best won; and for a like number of kitchen arieties, Mr. Dauncer, nureeryman, Hook, was easily lat.
For three diohes of Plums, Mr. Fulford, gr. to the Earl of Nelson, Trafalgar House, Dorset, won with choice kinds.
Vegetables are always well staged here. Mr. Bowerman won lat prize in each of the three collections of six varieties, with superior produce; Mr. BEsT, and Mr. Kneller, gr. to Wyndeam Portal, Esq., Malshangor Parly, coming next ia their respective clasees.
Mrs. Lidiams, Shirley, made a grand display with a large bank of herbaceous flowers, arranged in an effective manner; a smaller yet choice collection also coming from Mr. JıokMan, Woking.

## MANCHESTER ROYAL BOTANIC

 IILY AND FRUIT SHOWAvarst 22 to 26.-An exbibition where Lilien form the chief featare is altogether a novel one. To Mr. Bruce Findlay muat be voted the credit of bringing together auch a variety of Lilies in flower, that it in not the lot of the general pablic, and even of many gardenera, to have meen. Moreover, nearly the whole of them were shown in pota, 8 matter of cultural importance, and an object-lemen to all who inspected them, presenting an impoing array, tet in the aloping, undulating banks of the annexe, a building eminently fitted for displaying to the bent advantage pot-plante of every deacription. The foral cene was amplified by splendid assortmente of Gladioli, and border cat flowers in poaies of every hue. The fruit was not a large exhibition, and was not particularly notable, with the exception of some well-coloured bunches of Mascat Grapen. The opening-day was a propitious one, but the attendance was not such as a charming exhibition of thin kind ought to have commanded.

## Lilies.

By far the finest lot of Lilies came from Menars. R. Wallace - Ca, Colchester. The auratum section comprised some beantiful forms, among which we noted the magnificent rubybanded variety, rubro-vittatum in several lote, the gorgeous broad-segmente i platyphyllum, 80 prominently banded and spotted, and the plants bearing ahort stems carrying goodsized flowars, the white form of this under the name of Virginale, is an imported gem. with its minutely spotted flowers and prominent golden band down centre of each segment; thea Wittei, as white ss specionum album itsolf, only having a faint yellow band down contre of eegments. Batemanio is one of the most striking of the Ieolirion type, bearing glowing apricot flowers, almost unspotted. Among the speciosum group Melpomene is a suparb variety, making a aplendid exhibition plant, the vivid crimson-purple blotches and the white margins readera this form one of aingular attraction. Specosum slbum was in several varistien, the Kratzeri form beltg pure whits, and the album having prominent golden anthers. This group is always a telling one, and although the numbers renerally were limited beoause of the season, they atill take front rank in Lily mixtures. Longiflorum giganteam was very prominent, even beating for quality the ubiquitone Harrisii. The chief novelties and varieties were Lo Henryi, called the orange-yellow very free flowerer, some of the spikes bearing twenty flowers and carrying good foliage, the filikes beariog twenty flowera, under glass, and out in the open, the latter mode emphasizing the orange colour. The groups of this species here commanded
general attention and observation. L. Leichtlinii is a very charming Lily of the Martagon group; colour. yellow ground, covered with purple spots. L. nepalense is a pretty combi nation of brownish-crimson and citron. Another of the funnel shaped section, named Lowii, is striking in having its interio covered with purplish spote. L. tigrinum Fortunei giganteum is a gigantic form of the type, bearing larger flowers, and in greater number than the type. The old double Tiger Lily slways tells well in a group. This firm also showed a new form of Hemerocallis, under the name of Aurantiaca major, which received a First-class Certificate. The collection, as a whole, obtained the Society's Gold Medal, and it richly whole, obte
deserved it.
Mr. Húd
Mr. Hudson, from Kilburn, showed over a hundred pots, comprising chiefly forms of auratum and speciosum, the white ones being less numerous than the coloured-spotted ones. It was an effective groap, however. Mr. Findlay put up a large group, mostly of the auratum and speciosum breed, and in the course of a few remarks he made at the luncheon, he advised all gardeners not to try and force speciosum Lilies, because they would refuse to be conjured into flower under the the wisdom of his range completely flled with Lilies which in another fortnight would be a blaze of beauty, but nothing short of sunshine and time would effect the evolution of the flowers. Messrs. J. \& time would effect the evolution of the flowers. Messrs. J. \&
R. Thyne, Glasgow, sent a very good lot of L. auratum, in R. THyNE, Glasgow, sent a very good lot of L. auratum, in
which the large platyphyllum were represented, also some which the large plat

## GLadioli, ETC

Next in importance to the Lilies were the Gladioli, particularly those from Kelway \& Son, Langport. There were hundreds of them, and all clean and beautiful. Among the very best were Mr. J. Eyton, white, shaded rose; Lord rothe with rose venation ; Rev. H. H. D'Ombrain, cerieo nad white throat, splendid substance; Mr. Fowler, carnation, with yellow citron, carnation, good form; Fiducius, crimson, yellow citron, carnation, good form; Fiducius, crimson, deeply shaded centre; Maori Chief, mulberry, crimson
blotch; Duke of Edinburgh, rase and purplowhite throat. Among new ones we noted as best-Acis, marbled scarlet and purple, very stylish; Mus, deep velvety, crimson shaded, fine substance; Milus, beautiful shining heliotrope, with whitish base; Mano, maroon crimson, tender, of grand form and subetance; Pine, orange-scarlet, purple lines; and Madame Calve, shaded orange and suby blended. This firm also exhibited a splendid lot of Gaillardias, of which Vampire may be said to be the chief; and the free-fiuiting Japanese Wineberry, Rubus phoenicolasius. This makes a handsome plant. with fine ovate acuminato leaves with a profusion o rich scarlet berries crowded together, of prominent vinou
flavour. Along with this among others were the show flavour. Along with this among others were the showy gellow-flowered Rudbechia lacininth, and the
long bpikes of Veronica longifolia $\varepsilon$ ubecasilis.
Mesors. BARR \& Son had several Lilies in their collection, the double-flowering Tiger Lily not being the least effective o them; and the fine orange-scarlot Montbretia crocosmeflora along with Lobelia Queen Victoria, a brilliant form of the fulgens type.
Mr. ANTHONY WATERER ment cut sprays of the new Spireas Anthony Waterer in rather pretty ruhy-coloured thyrues. Menses. Diozson, Browr \& Tait sent a lot of cut Gladioli, set among nice dwarf greenery. Mesars. Diokson \& Robinson had very good ascortment of H. P. and Tea Roses; among the latter. Madame Hosta, a jellow, was vary prominent. Mr Jotiv Kirson, Altrincham, had a miscellaneous lot of hardy JOHV KITsON, Altrincham, had a miscllaneous lot of hardy
border flowers, nothing so fine as the varied Snapdragons border flowers, nothing so fine
Which are again coming to the fore.
Mr. Frank Liw. Sale, put up a grand assortment of cut flowers, such as he supplies daily to the Manchester bazaar trade. They were arraoged on a central bed, in which Kentia Fostriana was the fountain-like apex-sand beantiful they looked. They comprised Gladioli, the best market flower in that way being the scarlet Brenchleyensis, then Phloxes, par ticularly the late white; various kinds of border Chrysanthe muma, the charming white Mignon Aster, than which it has no rival for purity and form; fine posies of varied Zinnias, yellow Papaver, and also the deep pink variety, more beautiful when cut than to look at them in the plants; Germania Carnations, of fine sulphur colour; also a new border one very double, and of good form-carise, called Mrs. Frank very double, and of good form-cerise, called Mrs. Kran Sultans and Coreopsis, and Gaillardias; and Centaureas forming a group for brilliancy of these simple border flowers that may be equalled in the other departments of Flora, but could not be excelled.

## Eruit

Comprised collections of ten sorts, Mr. Goodacre, gr. to the Earl of Habaivorox, hed good Muscat and Black Bamburgh Grapes, a Queen Pine, Bellegarde Peaches, ELrage Nectarinea, a good Victory of Bath Melon, Downton Plums, and Jargonelle Peara. Mr. W. Wallis, Kr. to R. SwEYD, Baq., Keele Hall, was Peara. Mr. W. Wallis, igr. to R. SMEYD, Baq., Keele End , Wack
2nd with, among others, Peareon's Golden Queen and Black 2nd with, among others, Pearson's Golden Queen and Black
Hamburgh Grapes, Walburton Peaches, Golden Drop Plums, Hamburgh Grapes, Walburton Peaches, Golden Drop Plums,
and Negro Largo Vige, Mr. Slade, gr. to the Duke of Nuwand Negro Largo Vige, Mr. Slade, gr, to the Duke of New-
CastLe, was 3rd, havin, Mascat and Hamburgh Grapes, a Castle, was 3rd, havin, Mascat and Hamburgh Grapes, a
small Rine, and several other dishes, of which the Hero of small Pine, and several other
Lockinge Melon was the beet,
For the beet twelve bunches of Grapen, Mr. Goonicme wat 18t, with a showy lot, beantifully finiehed, but the bulk of them having mallinh borries. The Muscate here were good, considering the time of year, being of fair aize, good colour, and proper form; there were five bunohes of them in the eollection; then good-berried bunches of Gros Maroc; faimesed bunches, finely-finished, of Barbaroess, but berries jenall: and a pair of Alnwick Seedling.
Mr. Elphintone, gr. to S. M. MUNDAT, Eeq.,.Shipley]Hall,
had also a remarkably good lot, many thinking that the prize hou:d have been reversed; but on close examination the judgment appeared to be perfectly mound. This lot also com prised four good bunche of Muscat of Alezandrib, two of Alnwict Sordling, two of Madresfeld Court, and two of Black Hamburgh. The bunches were smallish and so were the berr es, $b$ it the finish and the staging ware without blemish. Mr. Tillott, gr. to Lord Barnaris. Raby Caatle, had very gooi Muscar of Alezandria. For six bunches of Grapes. Mr. Elphinsione and Mr. Goonacre exchanged positions, the former grower having lat, with three good bunches of Muscat of Alexandria and three Madresfield Court, the latter ex Libitor haviog aleo prime Museats, fairly good Fuster's Seedling, and Madresfeld Court. Mr. Richardson, gr. to J. E. Platit, Eeq., Cheadle, had fairly nood Muscat and Gros Maroc Anextra prize was awarded to Mr. Wallis, Koele Hall, for his aix bunches.

## Gbttuaty.

Monbieur Lievin Spae-Van der Meulen.We regret to hear of the death of Monsear Lisvin Spae-Van der Meulen, Treaurer of the Syndicale des Horticulteur Belges, who died at Ghent on Auguet 23, 1895

## The Weather.

[The term "accumulated tamperature" indiontes the aggregate amount, he well as the duration, of degrees of
temperature above or below 420 Fahr. for the poried named and this combined result is orproesed in Day-degrees-a "Day-degreen aignifying $1^{\circ}$ continued for an inversely proportionsl number of hourn.]


The distrists indicated by mumber in the furst column are 0, followin:-
0, 80 stland, N. Principal Wheat-producing Districte1, Scotland, E.: 2, England, N.K. 3, Kngland, R. Primapal Grazing, すc., Districts-b, Scotland, W. is, England, K.W. 8, England, S.

MARKET8
COVENT GARDEN, August 29.



Potatos.
Trade very dull. Supplies heary. Prices lower, \&3 to fit being fair average prices. J. B. Thomas.

## SHOW REPORTS, \&c., DELAYED

An anexpected demand apon our space unfortanately compels us to keep over until our next issue reports already in type of exhibitions held at Bath, Brighton, and other matter.


- Owing to the large increase in our circulation, we are reluctantly under the necessity of going to press some hours earlier. Out contributors, who well know what this implies, witl woele as possible. Communications should reach us not later than week as possible. Communications should reach us not later than Weanesday.
** Plants, Fruits, etc., to be Named.-Cortespondents sending plants or fruits to be namod, or asking questions domanding time and researeh for their solution, must not expect So obtain an answer to their enquiries in the current week. Speeimens should be good ones, carefully packed and numbered, Fiorists varieties cannot, as a ruls be named. Leaves only, of Ants: G. T. C. The means of destruction may be applied at the present time. When it is seen by digging into the nents that the ante are dead, the former should be dug into, and the earth containing the egge ncattered on the arface of the ground. Domentic fowls, pheamant, \&c., would coon then make a clearance of these.
Astrns: Will your correnpondent R. King (p. 216) be good enough to nend me one of hir divenaed Astere with roote and roil adhering, aloo name and addreet, se I sm deeply intereatod in the matter, and may posxibly be able to give him information. E. Dawees Roseoroft, Hambledon, Hants.
Bansoos: J. R. Bambuna has the apikeleta arranged in fancicles, and the flowers have six atamens. Arundinarin ham many flowered apikeleta arranged in branched apiken, without any enveloping leaf, and the atamens are three. The canes sre cylindrical, with numerous bade at the jointe, as poiated out to us by Mr. Bean. Payliostachys has loosely panicled one-flowered pikeleta, sarrounded at the base by a large leaf, stamens three. The canes are flattened or grooved on one side, and only two thoote proceed from each node, Thamnocalamus is not essentialiy distinct from Arundinaria.
Books: E Tremeller. Handy.book of the Flowergarden, by D. Thomson (W. Biackwood \& Sons, needed. The lengh) will afford the information needed. The hetor edition conte $5 s$ - MARKET Gakdennag, \&e.: J. N. C. Tillage and Implemente, by W. J. Malden, pablished by G. Beil \& Soan Pork Street. Covent Girden. The New Potato Cultwre, by E. S. Carman, Rural Pablizhing Co, Now York. or through a foreign bookseller.
Kitchen and Market Garden, by variout writers,
pablished by Macmillan \& Co., Bedford Street, Covent Garden. Market Garden Husbandry, by W. H. Ablett, published by Cnapman \& Hall, 11, Henrietta Street, Covent Garden.
Ceps or Cèprs: Inquirer. The edible apecies or cep blanc is Boletus edulis ; the poisonons apecies are the cèpe noir, B. æreas ; and the cèpe faux B. laridas. There is no known method of caltivating them.
Correction.-In the report of the proceedings of the Royal Horticultural Society's Frait Com mittee, at p. 218 last week, Tomato Early July should have been credited to Laxton Brothers, instead of to Sutton \& Sons.-Hsmmeramith Hor ticultaral Show, Gardeners' Chronicle, August 3 p. 137. Mr. A. Salter writes to nay that his father did not escape with a fine China dinner-service, as there atated, and which the King Louis Philippe presented to him. We had no desire to impate dishoneaty to the late Mr. Salter, or that he performed anything more than a friendly aetion towarda the King.
Flora of Tasmania": The widow of the late eminent botanical artist, Mr. W. H. Fitch, devires to dispose of this valuable work. It in in parts, but the firat one is missing.
Fungus on Pins: A. L. Didymiam apumarioidea; one of the slime-fungi has overrun the Pinks, but it is not a paraite, and will do no harm, and will soon entirely disappear. G. M.
Gardeners' Orphan Fund, A aubscriber to the Gardewers' Chronicle begs to enclose a post-office order for $£ 1$ for the orphans of gardeners, in consideration of the Editor's kindness in naming her wild flowers, $H, M, E$. The amount has been received with vety many thanks, and is in the hands of the secretary.
Handling a Spade or other Two handed Tool: Spadesman. When the left hand is used lower down the handle than the right, the ueer is naid to be "left-handed," notwithatanding that he is, where one hand only is brought into use, a righthanded man,
Judene at Flowrr Shows: R. C. W. 1. The group contest being for plantr in pota, the cuttingoff of the Bamboos and raing the stems, \&cc., as decorative material should have disqualified the exhibit. 2. Distinct species were doubtless meant by the framers of the schedule, and he who showed two A'alias was rightly put out of competition. 3 Cycads are not Palms.
Lettoces for Fobcing: W. D. The black-meeded Crisped Tennis Ball, white; Golden Tennis Ball, bat this variety noon bolts; and Tom Thamb. Sow in October on hotbeds, and grow entirely in frames or hand-glasens. We cannot give you any information about prices ; conalt our market re. ports of last winter.
Manore: C. H. W. If your land is light, let the manare be fairly decayed before aning it, bat if it be heavy, you may dig it in when halfdecajed. In any care, do not let it lie about in heapa, bat cover it with soil, banking it ap as you would Celery. Pour newage or house-mlopm into these, which will aid the rotting.
Maly Bug in Vineries: N. $Z$. We ahould be inclined to depend on Richarde' XL All Vaporiser for the dentruction of "bug." It is cheaper than hand-labour, and much more efficient, doing no harm to the frait, although we might havitate, for obvions reasona, to its use in vineries where ripe fruit is hanging; more than one application would be required. Could you not wait till the crop it conamed or put into bottles, when you could perhapa find a way to make the house airtight before uaing the vaporiser; in the meantime, using methylated apirite and a camel-hair pencil to kill "bug" wherever seen, eipecially about the banches.
Measurbment of Cubic Contemts of Glasshouse-a Lran-to: F. W. W. Firat find the area of a cros-section of the house up to the angle which the roof forms with the upright front wall or lighte, and then that of the angle formed by the roof, and a line drawn from the wall-plate horizontally towards the back wall of the hoase. Having found these meanarements, add them together, and multiply the total by the namber of lineal feet in the length of the house, and you will have the contente in cabic feet.
Natrs of Fretts: J. C. Bi 1, not known; 2, Daches of Oldenburg; 3, Raveleton Pippin.

Nambs of Plants: Correspondents not answerd in this issue are requested to consult the next number.W. M. Prunus Pissardi. There is no fangaiinsect on the Begonia, so far as we see. Is thero not some defect in the method of caltivation?N. C. 1, Linaria Cymbalaria; 2, Senecio viscomu 3. Chenopodium polyspermum ; 4, may be lesf of Spiræa Ulmaria; 5, Nicotianar rascica. Specimen withered, numbers detached mostly, figures neuly obliterated by damp. We do the best we can ander the circamstances. - Correspondent. Both Acm are forms of the Norway Maple, Acer platanoide, $L_{\text {, }}$ -H. M. E. Platanua orientalis, variety aceri-folia-often called the London Plane, as it in commonly planted in London. We never hend it called Indian Plane. - W. T. H. Gypaophils elegans.-A. H. Dasylirion acrotricham.-G. $A$, B $_{\text {. }}$ 7 , not recognised, flowers perished; 8, Leptor permum bullatum. - T. H., Ilkley. The fomm representa a very fine variety of Odontoglomm coronariam. It is much to your credit that yoo have been successful in growing it for solong a time, and flowering it. - M. 1, Lastrea rigida; 2 Lastrea recurva; 3, Nephrodium molle; 4, Nephrodium molle corymbiferum; 5, Pteris longifolic; 6 , Blechnum poly podioides. - $H_{0} F_{1}$, Leeds, $1, C_{r}$ tasetum Gnomus; 2, Brassia caudata; 3, Rodriguezia pubercens.-Lymington. Amaryllis reticulata, an almost evergreen stove speciea. - J. M., Peebles. Cattleya Harrisoniana,-C. T. 1, Polj. gonum Persicaria; 2, Ethuna cynapium ; 3, Polygonum aviculare; 4, Polygonam Convolvalun. The shells were utterly crushed.-W. P. Rhamnu Frangula.- X. Y. 1, Phyllanthas nivonas (Eaphorbiaceæ) ; 2, Myrsiphyllom asparagoides (Lilisece). We have no idea why it should be called Smiles, beyond the fact that there is a remote rene. blance.-Munches, 1, Cornus mas variegata : 2 Echium valgare; 3, Phacelia tanacetifolia.
Paciing Graprs for Tranitt: G. H. C. For beht manner of packing Grapes, either for market or private consumption, we woald refer you to Garo deners' Chronicle for 'S $\rightarrow$ pt. 27, 1890, p. 363, where various methods are fally described, and a for illustrated.
Phyllanthus nivosos: $X, Y$. Stove treatment it all times. Soil for potting, andy loam of a fthrou nature, and similar peat, nodules of andatone or porous red brick, dried cowdang or other mill manure, and well drained pota. Daring the summer aeason it does well in a house which is kept rather moister than dry, doing well mith Aroids. anch an Philodendrons, and the like. To get the white mottling of the leaves an good as possible it should not be densely shaded of overpotted, and it should not be placed far froin the glase. In the winter it uaually loses tome or its leaves. Prane it if you like before actiro growth begin.
Tomato: W. $R$. One of the diseases cauned by fungi, repeatedly figured and dencribed in these columith You can do nothing now, but next season apply Bordeaux apray early to the foliage and renf young frait. Be carefal not to ane it too merong ; refer to recent back numbers for further detailUbique. The appearances are connistent mith nome check to growth at a certain tange of development. There is no insect or fankur visible. The conditions too common, bat the cause is not clear.
Woras in this Garden: $O . H$.W. Use clear liseWater ; keep duckg, or, better atill, banoluil chictene.
Worms on Lawns: W. A. R. The anuwer apparel on Augut 10, nee p. 167.


 J. F. B.-W. W. Kelly. - W. G. J. H. C. S. (next week).
 next week. -

DIED,-Oa the 16 sb inst, at Shogi, Yokohast Japan, Herbert William, eldent non of Whem Brockbank, of Brockburat, Didobury, aged timitr tbree years. anddenly. Yabe Anye Fances, widow of Josis Lloyd-Wyone Eiq of Coed-Cich, Deabighatim and 7 . Eaton Place, S. W., aged eighty four. from Timos.

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C. Go VAN TUBERGEN, Jan., Haarlem May be had tree on appliestion to- LUGUE now ready, and Meara R BILBERRAD AND SON, 25, Savage Gardens Crutohed Friars. IE.U. Crutohed Friars. will be found in this Catalogue.

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## Eortcuitural Auctioneers and

Dyson's Lane Nurseries, Upper Edmonton, TENTH GBEAT ANNUAL UNRESEE

MEASRS. PROTHEROE AND MORRIS are instructed by Mr. H. B. May to SEI,L by AUCTION on the Pemises as sbove, on MONLAY NEXC. Septamber 9 , at
Eleven $0^{\circ}$ Clock punctually, there being apwards of 1600 Lots Eleven o'Clock punctually, there being apw
of anusually weil-grown stock, including:-
TRA-RO $\forall$ F $\Psi$, Climbing and Aush Varieties, also a Grand Lot TRA-ROJE, Climhing and RAMBLER, with growths 12 to TREE CARYATroNs, the BOUVARDIAS
FRENSS, thousands in various solizes
gRTCA HYEMALTS
FTCUS ELABTICA CYOLAMEA azaleas, cambllias
Clematis, ivies
And a Great Yariety of othe CROTONS
Palimy
hydrangeas
DRACENAS, ARALIAS DOUBLE PRIMULAS, POINLAPAGERIAS [SETTIAS AMPRLOPSIS保 May be viewed. Cata ories had onthing on.
May be viowed. Cata ogues had on the premises, and of the Auctioneers, 67 and 68, Cheapside, London, E.C.

## Lee, Kent, S, E.

GREAT ANNUAL TRADE SALE to commence punctually at 11 o'Clock, there being upwards of 1400 lots to sell in one

MESSRS. PROTHEROE AND MORRIS are IUCNION, on the Premises, The Burnt Ash Road Nurseries LuCNION, on the Premises, S.E., mjoining Lee Railway Station, S.E. Railway, Lee, Kont, S.E., adjoining Lee Railway Station, S.E. Railway, On TUESDAY NEXT, sept. 10 , at 11 ock ock precisely, without ING HEATHS and other-

STOVE and GREENHOUSE PLANTS,

## 2,000 Erica hyemalis

15,000
2,000
1,000
500
000
211
2,000
1,50

4,100 Granista
A fine lot of Stephanotis floribunda, Gardenia intermedia, Abutilons, choice sorts to names, Dipladenias of sorts, \&ce., with a large quantity of young Ericas, Hyemalis, gracilis, and other varieties; also Genistas and Ferns of sorts, all in 60 -pots, for growing on.
The stock may now be viewed. Catalogues may be had on the Premises, at the Seed Warehouse, 61, High Street, Lewisham, and of the Au
N.B. - Intending purcha
N.B. -Intending purchasers are invited to inspect the atock, which is unusnally well-grown, the Heathe being par-

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The Plants offered in this sale are of superior quality. They have been grown in New Greenhouses, in the pure air of
Eppiag Forest, and cannot fail to give purchasers entire Epping Fore
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Many thousands

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13,000 Rriea hyemalis
3,000 Rrica hyama
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1.000 Lapageria rosea suparbu

5,000 Cyclamen persicum
2,000 Pasiflora, Constance
8,000 Elematiot and Coerulea and other best named sorts.
Together with conaiderable

SUCKLES, Hardy FUCHSIAS, Wemble: Trumpet HONET. curner's new cenantional ROSR. "CAIMSON RAMBLRE,"
 May be viewed the day prioct to for cutting
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MESSRS. PROTHEROE and MORRIS will SELE by AUCTION at their Central vale Rooms. 67 and ne, Chenpsida. London, F.C. EVERY DAY at 12 o clock,
large consignments of NAMED HYACINTHS, TULIPs, to auit the Trale ad Private Buyers.
Also ROMAN HYACINTHS, IILIUM CANDIDUM, SNOWDROPS, \&c.

On view morning of Sale and Catalogues had.

## Enfield Highway, N.

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MEsSRS. PROTHETOE ATD MORRIS aro instructed by Mr. John Maller to SELL by AUCTION, at the Brimsdown Nurseries. Green Street, Enfield High-
way, N., on THURSDAY NEXT, September 12, at 11 o'Clock way, N., on THURSDAY NEXT, September 12, at 11 o'Clock
punctually, in consequence of the uasually large number of 1500 lote, without reserve,

About 60,000 Remarkably Well-grown
Stove and Greenhouse plants, mostly in No. 48 pots, and fit for immodiate Sale. Consisting of 20,000
WIN TER-F L O W E RIN G H EATHS,
Heluding Hyemalis, Gracilis, Wilmoreana, Hybrida, \&ec
2,000 TREE and OTHER CARNATIONS,
including Winter Cheer, Mrs, Moore, Joliffe. La Neige, \&c.
Also a fine lot of Mdlle. Thérèse Franco, Ưrish Pike, Ac. 2500 TEA BoSES IN POTS,
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Niphetos, C. Mermet, Maréchal Niel, Climbing Niphetos,
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1,000 Ferni, Adiantams, Poly- 1,000 Ampelopeis Veitchii and | 1,000 |  |
| :---: | :---: |
| podiums, \&c. |  |
| 3,000 Bouvardias, leading sorts |  |
|  | 100 Dentzia pary |

3,000 Bouvardias, leading sorts
5,000
Genista fragrans
100
Deutzia parviflora
500 coloured beautifully
1,00) and leading varietica
5,000 Solanums, ercoptionally
woll berried
1,n00 Palms, in variety
200 Bougainvillea glabra and Sanderiana
Epacris to nam
300 Aspidistras 600 Veronica Reine des Blanches
1,000 Passifloras, large quantities of Ficus, Begonias, Poinsettias, Euphorbia jacquinæflora, Callas, Aralias, Abutilons, Hybrid Crassulas, tec. also Stove Climbers, including Taxonias, Stephanotis, Allamandas, Dipladenia Boliviensis, and others.
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N.B. -The whole of the 8 .
N.B. - The whole of the Stock is in firstrate condition. The Ericss and Solanume are unquentionably the finest lot offered at this Nursery for many years; the tormer being very
well set for flower, and the Solanums nuneaally well berried.

## sidcup, Kent, 8.E.

About Ten Mioutes walk from the New Eltham (late Pope
GREAT ANNUAL TRADE SALE O E WINTER-BLOOMING
HEATHS, particularly well-grown and beautifully set

MESSRS. PROTHEROE AND MORRIS will SELL by $\triangle U C T I O N$ on the Premines, the Longlands by order of Measrs. Gregory \& Evane, an onormous quantity of unuwally well grown Plants comprising16,000 WINTER BLOOMING H
In excellent condition, and particnlarly well tet with Flower-


An monazily Grand 5000 Genistas in $60^{\circ} \mathrm{s}$.
An anusually Grand Lot of 12 to 15 feet,
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Climbing Perle den Jardins
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Crimson Rambler
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Madame Berand
Madame Berand
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Also Niphetom, White I/ Erance, and many other good arieties of Tens.

1000 Araucaria excela
5000 Bouvardias, beat varieties
5000 Solanums
together with a Splendid Collection of Forn Ficus elantica, and Latanil borbonica.
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to their uaual standard, apocial attention will be found well ap probably the Gentras, also the solanums and Roaed, which sre

By Order of MESSRS. LINDEN, l'Horticulture Intamata
tionale, Parc Leopold, Brussels, a fine Importation of tionale, Parc Leopold, Brussels, a fine Importation of

CATTLEYA MENDELI
Just arrived in most perfect Order and fine condition. It being well known that this grand Cattleya has beom very acarce in its native habitat, we have only succeeded the cooniderable trouble and great expense, in getting home thi
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Including a number of selected Established unflowemed plants, of the same strain as the above. Suparb, haalthy,
clean, and well-grown, with extra strong flowering badit they cannot fail to give satisfaction. PLANTS, with strong flowering spikes of

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 from the same Importation, out of which we have flowand those grand splendens, and its magnificent varieties, C. splendens suream, splendens, and its magnificent varieties, C. splendens suream,C. splendens Hollingtonii, C. splendens regale, \&c., C. Ban C. splendens Hollingtonii, C. splendens regale, ac., CB Bua exhibited at the Royal Horticultural Society on Novembor 17 last, when several of them received an Award of Merit. The Forms are certain to be found among the Plants offered.

MESSRS. PROTHEROE AND MORRIS at their Central Sale Rooms, 67 and 68 , Cheapside, Tamian O TUESDAY NEXT, Scpt. 10, at half-past $120^{\prime}$ Cont On view morning of Sale, and Catalogues had.

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Cheapside, London. E.O., on FRID $4 Y$ NEXT, Sept 13 , at uill Cheapside, London. E.O., on FRID 4Y NEXT, Sept 13, at anis
past 12 o'Clock, 100 lote of choice, clean, well-grown Orchith past 12 o'Clock, 100 lots of choice, clean, well.grown ormin. Amongst them will be found:
Odontoglossum hybrid Dicran- $\mid$ Leelia purparata Brysiana

Dendrobium hybrid Lut-
Wardiancheanum
Wardianum Louri $\times$ splondiaisnimum superbum,
Dendrobium hybrid Alapasia Roeblingianum, very rave
chrysadiscus
nobile, with pure white
sepals and petals
album
Cattleya eldorado
Monsis
Mowringian
Leelis elagang alb
outumnalis albe
Coélogyne cristata alba
Loy caste Skimnerí albo mantio
fica
Miltonia feativa
Cypripadium insigue Iw wycheanum, a yeliar insigne in the why original plant Brownil
Druryii
Eyermannianus
Diana
meedlings, ke.

On view morning of Sale, and Catalognes had.

## AUDENSHAW, NEAR MANCHESTEB

## HIGHLY IMPORTANT SALE

## CELEBRATED BEECHLAWN COLLECTOI

ESTABLISHED ${ }^{\circ \mathrm{B}}$ ORCHIDS,
WITHOUT THE SLIGHTEST RESEBVE, BX OEDES OT
W. R. LEE, Esq.,

Who in relinquishing their cultivation, in consequaned haviog Sold the Freehuld Estate.

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The Collection is juatly celebrated for the lerge numbit contains of plants of exceptional merit and rarity, the boing in a most healthy condition.
Also the GREENHOUSE PLANTS of Sorts. FERVG, EOt arections of Six Greenhouses, Saddle Boiler, 1400 foat 1 Nowt Water Piping, chiefly 4-inch, Frames, Barrowb, Gation Bol Garden Roller, Flowar Pots, Garden Seat, Thanatophone, and other Sundries.
May be viewed by sppointment any day prior to the give Catalogues may be had of Mr. Thomes Billington, the Fuats Gardener, on the premises, and of the Auctioners.
and Eatate Agents, $67 \& 68$, Cheapside, London, 2
chester, and have obtained many pirst Prizes,
Marit,
shown.

## Friday Next

A small lot of hoalthy, growing, fresh imported tubers of the LARGE GOLDEN YELLOW CALLA
(Richardia Pentlandii and R. Elliottiana type).
The tubers come from new ground, and the collector asserts that they will be of the finert large epotted type ever imported Callim, bat differing in the rich goldeng hue of the flowers. many of them havidg also a glowing purple blotch in the eentre. The emall lot offered are the sole survivors of the collection.
Aloo a fine lot of rare EASTERN AUSTRALIAN DENDROBIUM ${ }^{\text {a }}$, juat arrived in fine condition, and including DENDROBIUM LINGY'EFORME, a charming species with elegant spravs of white fraprant flowers ; DENDROBIUM TETRAGO-
NOM. D. TERETIFOLIUM, and thres plants of GIANT OYCNOCHES.
Also IMPOBTBD ORCEIDS consisting of Angreecum superbum, A. species, gramm stophyllum speeies, ©. Ellisiii, and Phojua species (another preperty). M ESSRS. PROTHEROE AND MORRIS will


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5000 BEST GOLDEN EUONYMUS,
In aplendid condition and colour, from 9 to 15 inohes,
undoubtedly the fineat lot ever offered at this Nursery; THOUSANDS OF SMALL SHRUBS,
For boxes, including Golden Privet, Aucubas, Yellow-berried Tree Ivies, Osmanthus, Gold and Silver Box.

4,000 CONIFERS.
From 9 to 24 inches, including Retinooporas of sorts, Thajopsis, Copreesus, Thuias. 300 EURYA LATIFOLIA VARIEGATA, irom 9 to 18 in .; Genista Andreana in pota, Araucaria ercelea in potars VETTCHI, in pots Specimen Palma. 1000 KENTIAS in pots, from 9 in. to $\&$ fth $^{2}$, Standard variegated, and green Tree Ivies, Btandard Gold Euonymus, and Silver Euonymus A quantity of Olimbing TEA ROSES, in pots, 8 to $8 \mathrm{ft}_{\text {. }}$ high, Maréchal Niel, Wm. Allen Richardson, Devoniensis, Gloire de Dijon, \&c.
May be viewed one week prior to the sale. Catalogues may be had on the Premises; at 38, Hammersmith Road, W. and ft the Auctioneers. Estate Agents, and Valuers, 67 and 88 Cheapside, London, E.C.

PRELIMINARY NOTICE OF FORTHCOMING SALESFWURSERY STOCK

Important to Gentlemen, and the Trade, Engaged in Planting.

## $\mathrm{M}^{1}$

ESSRS. PROTHEROE AND MORRIS beg to announce the following fixtures:-
ctober 10-At the CHILWELL NURSEBIES, NOTTB, by order of Messra. J. R. Pearson \& Sons.
ctober 16. - At the NURSERY, PUTNEY, by order of Messre. Malwood \& 80n.
October 23 - At the PERRI BILL NURSERIES, CLIFFE. near Rochester, Ninth Annual Uneeerved salo of
Fruit Trees, by ordar of Mr. W. Horne.
Ootober 29 and 30 - At the EALK FARM NURSKRIRS, TOT TENHAM. Great Anaual Sale, by order of Mr. T.8. Ware (two days)

Dates not fixed
At the SAXE WEIMER NURSERIES, SOUTHSEA, by order of Mr. T. J. Short (one day)
At the HORSELL NURSERIES, WOKINGSTATION, by order of Mesars. H. \& C. Cobbett (three days).
$t$ the NURSERIES, LINCOLN, by order of Messrs. Penaell \& Sons (one day).
At the GOLDSMITA'S PARK NURSERIRS, GROOMBRIDGE, near TUNBRIDGE WELLS, by order of the kxors. of the late Mr. E. Hollamby (two days)
At the NURSERIES, BAGSHOT, by order of Mr. Chas. Noble (dix days).
the BRANCH NURSERIES, FRAMFIELD, by order of Mesers. Wm. Paul \& Son.
Messrs. Protheroe \&t Morris will be pleased to forward Catalogues of any of the above Sales on application.
Auction and Estate Offices, 87 and 88 , Cheapside, E.C.
The Melbourne Nurseries, Bexley Heath, Kent.
ANNUAL CLEARANCE SALE, by order of Mr. R. Gulzow
16,000 ASPARAGUS PLUMOSA NANA (true)
200 COCOS WEDELLIIANA.
200 DRACAENAS, of sorts, in colour
$b 00$ Carnations "Lizzie MacGower
500 CUPHEA LEAVE
150 AZALEA MOLLIS.
150 AZALEA MOLLIS.
Important to the $\& \mathrm{c}$.

$\mathrm{M}^{1}$ESSRS. PROTHEROE AND MORIEIS will SELL the above by AUCTION, on the Premises as on FRIDA
be viewed

Cataloques may be had
and of the Auctioneers, 67 and 68. Cheapside. the Premises

UPPER HOLLOWAY. - WITHOUT RESERVE.
A GRAND OPPORTUNITY for PURCHASING SPECIMEN PALMS, TREE FERNS, \&c., for Furnishing Large Winter Gardens or Conservatories.

# IMPORTANT SALE OF VALUABLE STOVE and GREENHOUSE EXHBBITION帾 DECORATIVE PLANTS. 

By Order of Messrs. B. S. Williams \& Son,
Who, with a view to removing their Nurseries to more commodious premises in the country, are about to dispose of a portion of their Freehold Land for bailding purposes.

THE FOLLOWING WILL BE FOUND IN THE CATALOGUE:-
Splendid SPECIMEN and HALF-SPECIMEN PLANTS, and also a large selection of GENERAL NURSERY STOCK, inolading GREENHOUSE RHODODENDRONS, AZALEAS, CLIVEIAS, CAMELLIAS, CROTONS, TREE FERNS. PALMS, KENTIAS, \&o. ; also fine SPECIMEN LAPAGERIA ALBA and ROSEA, ALLAMANDAS, BOUGAINVILLEAS, CLER()DENDRONS, PANDANUS, \&o, and a large askortment of CANNAS, DRACENAS, CROTONS, ARAUCARIAS, AMARYLLIS, PANCRATIUMS, ANTHURIUMS, MARANTAS, ORCHIDS, \&o., which will be

## Sold by Auction, on the Premises,

VICTORIA \& PARADISE NURSERIES, UPPER HOLLOWAY, N., BY MESSRS.
PROTHEROE \& MORRIS,
On MONDAY and TUESDAY, SEPTEMBER 16 and 17, at 12 o'Clock each day. May be viewed any day prior to the Sale. Catalogues may be had at the Nurseries, and of the Auctioneers, 67 \& 68, Cheapside, London, E.C.
N.B.-Memra. Williams will undertake the packing of any plants, and their dispatch.

He colleotion praday Next. of "Glencourt." Addiscombe Road. Croydon, who is rivin up their cultivation, comprising 250 lote of well-grown
Planta, amongst which may bo mentioned :tanum Bosalli
Rothschildianum apicorianum Othonei Moatie

Harrioonive<br>Harrison<br>Gaskelliana<br>grandis tedebross<br>anceps Morada, speclally fie

Triaumel
Brassavola Digbyana, Coologyne oriatata, Dendrabiuma, E0. in varioty. togother with 800 Cool-house Orchids, incladleg Odontoglonum llezandres. O. Pencatorei, O. Rosai, O. Oer vantesi, O. Halli, Onoidiumin in variety, und other
HESSRS. PROTHEROE AND MORRIS will Rooms, 87 End 68 , Chempaide, London, E.C., on FRIDAY NEXT', September 13, at half pat $120^{\circ}$ Clock.

Avenue Nursery, Bexiey Heath, Kent.
Cloe to Bexler Heath Station, S. E. R
FIRST ANNUAL TRADE SALE of besutifully-grown PLANTS. By order of Messra. P. H. and J. Cooper.

MESSRS. PROTHEROE and MORRIS will sery, Bexlay by Auccion, on the Premises, Avenue Nurat is o'Clouk, without Reaerve, 8000 ROSES, iacluding Maréchal Niel, Gloire de Dijon, W. A. Richardson, Sunset. L'idéal, Climbing Devoniensis, C. Mermet, Bride, Cheshunt Hybrid, Niphetoe, Turner's Orimeon Rambler, Climbing Niphetos, Perle des Jardias, Olimbing Perle dea Jardins; 3500 TREE and other CARNATIONS,
consisting of Germania, Mrs. Reynolds Hole, Mrs, Moore, Jolife, Don Danger, Annic Douglas, and Ligt and Dapl Malmaisom.

$$
1100 \text { OLEMATIS }
$$

including Belle of Woking, Beauty of Worcester. Jackmanii. Jackmannii alba, Jackmanil superba, Mrs. George Jackman, Alba Magna, Miss Bateman, Lady Boville, Rubella, Duke of Edinburgh, Duchess of Edinburgh. Anderson Henryi, Lady Londesborough, John Gould Veitch, Lady Caroline Neville, tic.
120 Large Specimen Gar- 1.C00 Ampelopsis Voitchis denia intermedia, in 2,500 Genistas, in 48 -pots 16-pots 10,000 Her Majesty Pinks U4 Fucharis amazonica, in $\quad 8,000$ Erica Wilmorean 8. 12. and 16 -pots
00 Erica hyemalis, in 1,500 Erics wilmarean 48 1,000 60-pots $\begin{aligned} & \text { 6ssurans, in } 60-\text { pots }\end{aligned}$ 1,000 " gracilis, is 60-pota : 18 -pote pots
And Large quantitiy of Awparagus tonuimima, in 32-pata Ficus elastica, Ficus elastica variegata, Pandanus Veichit, May be fiowed
and on the Premters; and of the Anotioneers, 67 and 68, Cheapaide, London, K.C.

## WEDNESDAY NEXT.

AN IMPORTANT TRADE SALE OF

## DUTCH BULBS.

A SPECTAL COLLECTION of FINE HYACINTHS, ibcluding many of the neweet and beat forts. in splendid order, from obtaining first-clase Bulbs.

A large and varied assortment of
CHOICE TULIPS. Rare and Beautiful NABCISSISE, CROCUS in variety. Also-
SNOWDROPS, IRIS. COLCHICUMS, SCILLAS, several thouand Barly White ROMAN HYACINTES, CILIUM CaNDIDUM, L. HAREISI, and Narcissus P J CTEVENS

MR. J. C. STEVENS will SELL the above by AUCTIUN at his Great Rooms, 38, King Street Covent Gardenc on WEDNESA
half-past $140^{\prime}$ Clock precisely.

## DUTCH BULBS—DUTCH BULBS.

gales neariy evary day, in Large and small Lote, to auit all Buyern.
MR. J. C. STEVENS will SELL by AUCGardon, naariy every dayy cons gaments of Choice HYACINTBS, TULIPS, CROCUSES, NARCTBAUS, and other BULBS arriving daily from wellknown farms in Hollend, in the fluent possible condition On view morning of sale, and Cutalogues had.

## Southwick, sussex.

Near Brighton. Close to Railway Station.
Several very raluable Plots of FREEHOLD LAND, well adapted for Market Garden and Horticultaral Purposea.
for BaLE by AUCTION, by
MESSRS. WM. WOOD, SON, AND DAY, September in 1 1805 , at balf-past $20^{\circ}$ Clock precisely (after the Luncheon).
Partioulars, Plans, and Conditions of Sale, may be had of W. F. VRRRaLLo Eeq, Solicitor, Worthing; or of Mears WM. WOOD, SON, AND GARDNRR, Land Agente and Sur
vejors, Ifield Court, Crawley, Suseex.

## SALES BY AUCTION,

## By Order of the Proprietor, Mr. Jas. Puttick, <br> To NURSERYMEN, GENTLEMEN, and OTGERS

MESSRS. WM. EYDMANN AND SON will cffer for SALE by PUBLIC AUCTION, on the above Premises, on TUESDAY, September 17, 1895 , at 2 o'Clock precisily, 8 sistivg of about 800 Myrtles . 600 Gardenias, 100 Choisya sistiug of about ${ }^{\text {sen }} 400$ Aspidistras. 30 large White Azsleas, and 5) smaller ditto 10.000 FERNS, in variety: 2000 ARALIAS, OREA 15 CACTI SNE Plants of LOMARIA CYCATI FULIA, and a quadtity of Garden Lights.
N.B. - Im macoiately on conclusion of the Sale of the Stock, the following will be offered for SALT by AUCIION: a
FKEEHOLD PLOT of LAND, being part of the Nursery with a frontage of It is well adapted for the erection of two large Laundries.
the iree, and land-tar redeewo.
May be viewed day previous and morning of sale. Cata225 , High Streer, Acton, W.

Manchester. - Importalt Sale of 500 Orchias, incuaing many rare aud choice sorts, such as Cattleya Blunti, C. Heineckiana, C. Mendelli Frithii, $\mathbf{C}$. aurea (Young C. Skioneni, Lexlia elegana Purnerii, dark form, Stand Hall var. ; Lo elegans alba true, L. purpurata, L. Gould iana true, $L$. aibida sulphurea, $L$. ancepa Sanderiana, Pleione precox tenera, P. Wallichii and lagenaria, Coo logyne cristata, Chatoworth var,; C. maxima, Dendrobium nobile cobilius, Wrigley's var. ; D. Cooksoni, Hardy's var. ; Odontoglossum crispum, stamford House Sar, award of merit remple show, 1894; Cypripedium schottianum, C. Leeanum superbum,

MESSHS $A$ RTINGSTAIL 4 ND HIND ESS-ctfully notify the receipt of inetructions from H. Shaw, Isq., J.P., Stamford House, Ashton-under-Lyne, who is changing his residence, to SELLL by AUCTION, at 12 o'Clock. on ThURSDAY, September 19, 1895, at their Horticultural Sale Rooms, No. 45, Princess Street, Manchester, a Valuable For further particulars apply to the Auctioneers, Mancheater.

$T 0$O BE SOLD, parsuant to an Order of the High Court of Justice, Chancery Division, made in an atioa, bennett \& Another $v$. Corbiage (trustee of the property of John Burcheli, a Bankrup). 1880, B. 181, with the approbation of Mr. Juatice North. the Judge to whom the action is attached by Mr. Walter Williams Read. the parson appointed by the saia Jurge. at The start, Tokemhouse Yard, in the City of Lovdon, on Tuesday, September 24,1890 , at 2 clock in the FREEHOLD ESTATE, noown aq "LITTLE CAN NA N," situat in the Pansh of Great Parndon, Epping. in the count yof Esser oonsisting of a capital Residence, Farm Buildings, and Stubling: 8 Areenhouser, heated by Hot-water Piping and Boilers; Bailift's Cottage, Packing hou e, and Ou buildings: Gardens, three Productive Orcharus, together with 51 acres 1 rood and 4 poles or thereabouts) of Park-like Pasture, Marlet Garden, Orchard, and Woodlands.
Particuiars, with Plan, and Conditions of Sale, may be obtained of Messrs. SAUNDERS, HAWKSFORD, AND BRNNETT. Solicitors, 68, Coleman Street, Bank, E.C. ; at The Mart, R.C.; and of Messrs. W. W. READ And CO, Auctioneers and Land Agents, 1, Queen Street, Cheapside, E.C.

Dated this August 12, 1895
ALFRED RAWLINSON, Chiel Clenk.

N
URSERY, FLORIST'S, and FRUITERER'S BUSINESS for DISPOSAL; South coast; shops: Acre of Ground; central position; Rent Pl 100 . Stock, Plant, Six Greenhouses, \&c., at Valuation. Stabling, Four Horses, and Six Carts-BORN BROS., Auctioneers, Eastbourne.
HOK SALE, a small valuable long leasehold NURSERY, 6 miles from Covant Garden. Seven large Greenhouses, well stocked; two Vineries. Cucumber-hoùe. Plant-houseg, five-roomed Cottage. Low Ground Rent. Lease egain road. All particulars of F LORIST, 11, Dafforne Road. Tooting. Iurrey.
TOR SALE - FREEHOLD NURSERY water pipes; Weter hiad on. une mile and a hall from Station. - Particulars, apply to $O$ wner, J, HOWELL, Hextable,

$\$$OUTHPOKT-Gentleman's 13 -roomed Detached HOUSE, all modera canverieaces, with Vine ries, 120 by 18 , containing about 200 yoana Canes in full bearing; 6 other Glasshouses, Frames, \&c. ; Top and Bottom-ill-health. - A pply, HATCH, South port; or BATEMAN, Woodlands, St, Mary Church. To Nurserymon and Florists commencing businene. Park Eatate, free from London fogs, a deep rch loam, the favourite neighbourhood for Growers, PREEHOLD Lfor residences - Vor full syatem of payment. Excellent sites HVGHES (Surveyor), the Entala Officty to Mr. FREDK. G. TO BE LET or SOLD, FREEHOLD Trontage, 6 Glamhonsea, 100 fent by is of an Acre, 150 , feet hented. in evod working order. For further particulurs, apply to W. A. sHaw, Eextable,
swanley. Keat.
$T \mathrm{~T}$ BE LET or SOLD, FREEHOLD for any pursone. Convenient modern detached D , suitable J. CHAMBERS, 126 , Catod.

T
To Fruit Growers and Market Gardeners. LET, in the neighbourhood of Enfield, Middleser, a large ORCEARD, planted with Apple Pear, and Plum Trees, and Gooseberry and Currant Bushes: and Market Qarden Ground, containing altogether 50 Acres, or thereabouts, with House and necessary outbuildings. Posgession Michaelmas. Apply, for rent and other particuiars.
Mesars. WITHERS AND WITHERS, Maltravers House Mearr. WITHERY AND WITHERS, Maltravers House,
Arundel Street, Strand. Londod, Solicitors; and W.C. ELMS, Arundel Street, Strand. London, Solicitors;

CREENHOUSE, old, to clear, 26 by 13 Twwelve sliding Lights; six front-hinged Frames,

Fifty Nurseries, Market Cardens, Florist and seed BUSINESSES to be DISPOSED OF

$\mathbf{M}^{\mathrm{F}}$ESSRS. PROTHEROE AND MORRIS ulare of the above, and can be obtained, gratis a

67 and 68 , Cheapside, Loadon. E.C.

## ODONTOCLOSSUM CRISPUM.

## MAGNIEICENT IMPORTATION OF

 9000 PLANTS.()UR Mr. HUGH COLLINS, who is col Oriecting for our Firm, finding that nearly all the best which have been gathered in the old grouado rers to supply the ever-increasing demand for this most lovely Orchid, has, with a staff of men, penetrated further into the woods, where it is believed no collector has ever been, and has despatched thif grand lot of plants. He says there are numerous natural
habrids amongst them. He saw large numbers of these hybrids amongst them. He saw large numbers of these platinct-looking pieces amongst them. Private buyera and the trade are cordially invited to inspect and choose their own $\sum_{30}$, £50 orders. Plants from 2p. to 20s. each. This is a coolhouse Orvhid. Instructions for growing will be sent with house orderid. Instructions for growing will be sent with COLLINS a COLLINS, Orchid Importer

## DAFFODILS, DAFFODILS,

LATE MAY-FLOWERING SELF-COLOURED SINGLE TULIPS.
A rare collection from Harthand, Bulb Grower, Cork,
Write for Prices and Catalogue for 1895.
Delivery from August to November.
250,000
VON SION DAFFODILS, for in lots of 10,000 , for cash, at $7 s$ sd per 1000 . All large Double 8nowdrop size. Samples eent for six stamps.

HARTLAND, Daftodil and Tulip Grower, Corly, Ireland.

## 25 PER CENT. SAVED! <br> The BEST HYACINTHS THE



## DICKSONS NEW FERN,

ADIANTUM CAPILLUS VENERIS IMBRICATUM.
We hold a large stooll of this splendid Fern (Cer tificated Royal Hort. Society) in various sizes All bealthy, vigorous, and in fine condition.

Prices and full particulars, with sample frond if desired, by post.

## DIOKSONS NURSERIES CHESTER.

## WEBBS' EARLY BULBS.

THE FINEST ROOTS OF THE SEASON. ROMAN HYACINTHS

| arly Whi | , extra large b |
| :---: | :---: |
| Ditto | ditto |
| Ditto | ne balb |
| Ditto | ditto |
| Ditto | smaller bulbs |
| Ditto | ditto |

POLYANTEUS NARCISSUS
$\begin{array}{llll}\text { Double Roman } & \ldots & \ldots & \text { 3d. each, 1s. 6d. par dose } \\ \text { Paper White }\end{array} \cdots \quad \ldots$ 3d. each, 18. 6d. per doe DUC VAN THOL TULIPS SINGLF, scarlet ane 8d. per doz., 4s. 6d. per 100.
DOUBLE, scarlet and sellow, 9d. per doz., 53 . per 100 .
webbs' bulb catalogue,
Beautifully Illustrated, Gratis and Post-free.
Seedsmen by Royal Warrants to H.M. the Queen
WORDSLEY, STOURBRIDGE.
FRUIT TREES A SPECIALITY.

## STRAWBERRIES.

ROYAL SOVEREIGN: - The bet Strawberry grown. Apecial quotations for large quantition
Alco all the best of the New and Old Varieties incladiag Competicor, Sensation, A 1, Allan's New Ones, \&cc.
FRUIT TREES of all sorts, in all forme. Send for Descriptive Catalogue.

JOHN WATKINS,
POMONA FARM NURSRRIES, WITHINGTON, HEREFORD.

## BOLD, BRIGHT, BEDDING

BEGONIAS
BLOOMING BEAUTIFULLY AT
BEXLEY HEATH.
Avoarded Three Gold Medals and upwards of Fifty other Highest Honours.


-NOSVIS $3 H 110$

CALL and SEE
THIS MA GNIFICENT SIGH
Trains ran from London Bridge and Canno Street Stations to Bexley Heath (New Or Omnibus from Woolwioh.
THOMAS S. WARE
HALE FARM NURSERIES,
TOTTENHAM, LONDON.

## TUESDAY, SEPTEMBER 17.

## CATTLEYA MENDELI.

## HUCH LOW \& CO.

## EXPECT TO RECEIVE A

VERY LARGE IMPORTATION

# OF <br> CATTLEYA MENDELL. <br> Per R.M.S. "PARA," <br> Which they will offer through <br> MESSRS. <br> PROTHEROE <br> AND <br> MORRIS, 

AT THEIR
CENTRAL SALE ROOMS,
$67 \& 68$, CHEAPSIDE, E.C., ON
TUESDAY, SEPT. 17.
Full particulars will appear in next week's issue.

## IMPORTANT SALE.

Tuesday Next, Sept. 10.
 MESSRS. LINDEN, 輹 yhorticulture internationale, parc leopold,
BRUSSELS, BELGIUM.

## CATTLEYA MENDELI.

A fine lot of Imported Plants of this magnificent Cattleya.

Guaranteed to be the finest strain ever imported of this lovely Cattleya.

## CATTLEYA MENOELI.

Selected, established, unflowered plants.
Superb, healthy, clean, \& well-grown. Cannot fail to give satisfaction. The Grandest Strain ever Imported.

## CATASETUM BUNCEROTHI, CATASETUM SPLENOENE,

 AND ITS MAGNIFICENT VARIETIES.Specially selected established unflowered plants, with strong spikes.

From the same importation out of which we have flowered those grand new species as Catasetum imperiale, C. Lindeni, C. Luciani, C. mirabile, C. O'Brienianum, and other magnificent new forms.

## BY MESSRS

## PROTHEROE \& MORRIS,

At their CENTRAL SALE ROOMS, 67 * 68, OHEAPSIDE, LONDON, E.C.


THE

## Gardentes Chronidle.

SATURDAY, SEPTEMBER 7, 1895.

THE NATIONAL HORTICUL. TURAL SCHOOL AT VERSAILLES.
IN the year 1874 a National School of Hortioulture was established at Versailles, on the site of the old kitchen-garden. The oreator of this kitchen-garden was the famons John de la Quintinie, about whom it may be interesting to give a few details. Born at Poictiers in 1626, Quintinie early showed that he had a strong inclination for the stady of agrioulture and hortioulture. He began his gardening oareer as manager of the gardens belonging to Tambonenu, the then President of the Chamber of Acoounts. He is said to have applied himself to so intense a study of the operations of nature that he soon became famous all over France. He made many curious and useful experiments. He was the first who proved it useless to join fibres to the roots of trees when transplanted, and he disoovered a sure and infallible method of proning trees, "so as to make them not only bear fruit, but bear it in whatever part the owner chooses, and even produce it equally throughout all the branches, whioh had never before been tried, nor even believed to be possible" (vide Chalmars' Biographioal Diotionary, vol. Xxv.).
Quintinie came to England in 1673, and during his stay here paid a visit, at Wotton, to Mr. Evelyn, who prevailed on him to commanioate some directions concerning Melons, for the cultivation of whioh Qaintinie was remarkably famous. These directions may be oonsulted by those who are interested in the history of gardeniag in the Philosophical Transactions of the Royal Sooiety for 1693. It is said that either Charles II. or James II. made Quintinie an offer of a considerable pension if he would stay and take upon him the direction of the Royal Gardens, but he preferred to serve his own King, Lonis XIV., who made him "Director-General of all His Majesty's fruit and kitchen gardens."

The architeot Mansart it was who designed the kitchen-garden, the "Potager," as it is termed in French, but anfortunately, although he ohose a spot that was in harmony with the general appearance of the gardens and park, he made the mistake of not thinking about the effect the site and the nature of the soil would have on the vegetables and fruits. He had oonstruoted the orangery at the south of the palaoe, and in front of this astonishing edifice a Swiss regiment had dug the lake which atill bears the name of the "Pièce d'enu des Suisses." Muoh of the soil of the kitchen-garden was formed from the earth thrown up by these works, and it was not as good as La Qaintinie would have liked to have seen. Moreover, the kitohen-garden was in plaoe where had been formerly a deep pond, and it was necessary to fill up the place of this pond.
In Qaintinie's book entitled Inetruction pour les jardins fruitiers et potagers, one can read of the difficulties he had to contend with in bringing
the Versailles kitohen-garden to that state perfeotion for which it was renowned. The gariden was begun in 1878, and was not completed till 1683.
The enolosure placed under Quintinie's direation contained twenty-nine gardens, separated by walls ranning in different directions, thus giving opportanities for different treatment of the various plots. One is struck while going over the gardens by the happy idea of the organiser, which was to surround the large squares in the middle by terraoes, so as to protect the plants against the wind, to refleot the heat of the sun, and to afford large surfaoes for fruit-walls.
Quintinie was a great anthority on all kinds of froit-trees, but the Pear was evidently his favourite. In the east of the Potager may be seen two magnifioent Pear trees planted by Quintinie himself in 1885 -one of these trees, more than 200 years old, is nearly 30 feet high.

Lonis XIV. was very proud of his "Potager de Versailles." He liked to take walks in it, and would interest himself in the caltures. He was a very hesvy feeder, and, as the chroniole tells us, he liked to have Asparsgus in December, Radishes and Lettuces in Janarry, Canliflowers in Maroh, Strawberries in April, fresh Peass in May, and Melons in June, Quintinie exerted himself to satisfy his royal master, but it will easily be imagined that it was not always easy to do so. When the great gardener died in 1688, the king is reported to have said that he had experienced a great loss which he never expected to have repaired. A statue of Quintinie now stands in the gardens which he oreated.
The Ecole Nationale d'Horticulture oconpies the buildings, gardens, and other places where were once the kitchea gardens of the kings of France. The establishment is split up into different seetions, the whole ocoupying a space of some 24 aores. Part of this space is
taken up with kitohen taken up with kitohen gardens; besides these there are the plots for frait trees, experimental culture beds, greenhouses, an orangery, a winter garden, a sohool for the botanioal stadents, \&o. There is also a little model nursery.
The objeot of the sohool is to train gardeners, and to instract them in the theory and practios of horticultare; to provide teachers of hortioulture for the pratioal and normal sohools of agricalture, to trsin professors of horticalture and landoape gardeners, to turn out well-ednoated agents for public or private offioes-in a word to provide for all those who may need it an effioient education in all branches of horticulture.
The students who have satisfied the Minister of Agrioalture as to the conditions of admission, and who have passed the preliminary examinations, reocive a three yeary' training at the school. The theoretical teashing inclndes
the following courees: - the the following courses:- the laying out of gardens and the construotion of greenhouses,
instruction in phytios, meteorology, chemiatry instruetion in physios, meteorology, chemistry, geology, mineralogy, the collture of estrily
vegetables, horticultural zoology and entomovegetables, horticultural zoology and entomology, ornamental arboricaltare and the repro-
duction of vegetables, pomology, floricaltare, duction of vegetables, pomology, floricaltare,
botanical work, the care of frait trees and method for getting early fruit. Besides these special studies, the pupils are instructed in English, mathematios, topography, drawing, \&c. The pupils are not simply gentlemen-gardeners, engaged in book-work and in looking at resalts and practical worls, but they are expeoted to work with their own hands, and thus soquirs
considerable dexterity of manipalation. considerable dexterity of manipulation.
The School of Hortionltore
The School of Horticaltare is provided with
excellent materials for instruction, induding excellent materials for instruction, provided with wing
library, a laboratory for horticolltaral rosearoh,
a meteorologioal station and fine collections, which inolude plant-albums, herbaria, speoimens of seeds and woods, a little museum of useful and noxions animals, models of implements, oasts of fruits, \&c.
The oreation of this school was due to the initiative of the late P. Joigneana, an eminen agricalturist and a depaty, and its organisation to the late Auguste Hardy, who was one of the first hortioultarists in France. To-day it is under the direction of M. Nanot.
For many facts in the above sketch we are indebted to an article that revently appeared in $L_{a}$ Nature over the signature of E. Hennebert. H. C.F.

## New or Noteworthy Plants.

## CATASETUM FEROX, Kranzlin, n, sp.*

If not beautifal, this is certainly a very atriking plant, in habit rather like the other Cataseta we have in our stoves. The spike beara sbout twenty fowers of dirty-green colour outride, and pea-green inside, more or less apotted with amall parplish spots. The sepals and petala are of about the seme size and form, growing in a sort of helmet as in some other Catsasta, Cataaetum puram, Nees, for instance (= Cataraetum inapertam, Hook.). The mont pecaliar part of these flowers, and the one by which they can easily be diatinguibhed from other species, is the lip. This part is rather omall for a Catasetum, and looke very like a lower-jaw with a prominent chin and teeth; on both sides there are two rows of molar teeth, not very long and prominent, but broad and atont; a little behind the top is a row of six; very prominent incisor,s, the middle ones coherent except at the apex. The plant wac introduced by Meurra. F. Sander \& Coon, St, Albana, and flowered in midoummer. F. Kränzlin.

## Lagospadix Michouttun, Ridley, n, sp. $\uparrow$

I have received, through the kindness of Mr . Micholitz, apecimena of a very remarkable new Palm, a species of the small genas, Lino opadix, from the mountains of New Grinea., Seeds of the plant have been enent to Mr. Sader's establishment at St. Albane. The genas Linorpadix is typically Papuan, though the original and best-known apecies, L. monortachys, Wendl., in a native of Northern Anstralis. The present apecies is unique in ita genus in being quite atemless, the wedge-shaped leavear rioing erect from the ground in a large taff ; they are upwards of 4 feet in height, narrowed into a petiole at "the bave, and broadening upwards, and end in a pair of long acate points. The apadices are extremely ylender and elegant, and are remarkable

[^16]in being unisexual, the male and female flomers being on different spadices. The frait is oblong, about half an inch long, bright red, the albumen of the seed white, and very hard. The plant inhabits the wet ravines of the higher slopes of the mountains.

## THE FRUIT CROPS.

[For Tabulated Summary, see p. 119.] (Concluded from $p .208$. ) 5, SOUTHERN COUNTIES.
Berksifre - Notwithstanding the drought, which prevailed more or leas up to July 18, I am able to report in this district one of the best all-round crop ever seen; and having bad copious raine (oince abora date to Jaly 31,460 inches), I have every confidence that a good crop is now assared, although maller in size than asual, through drought. Applea are a very heavy crop; names need not be given, u nearly all here are carrying heavy crops, in a collection which includen over 200 varieties. Pearn a fair crop, rather under average, but will, I anticipate, be of fine quality, as the frait is clean, free from rust and now awelling rapidly. Cherries were an extra. ordinarily heavy crop, and fruit large ; trees making good growth, and free from black-fly, which is asually very troablesome here on walls. Peaches and Nectarines, good crops, and tree looking well. I bave been gathering good-sized Peaches, of fine colour, from south walls, since Jaly 16, variety Alexander. Apricots, average crop, of nice clean fruit. Plame, mediam crop, of good quality. Dammons, heavy crops. Strawberries were a good crop, but only by peraevering with thorough watering for several weeks ; frait firm, and of good size ; Jamer Veitch proved a good variety here this reason, and of better flavoar than asual. The appearance of the beds, after severe frost in spring was deplorable -nota leaf left, and I had doubta whether many of the crowns were not killed outright; however, when growth commenced, they soon recovered, and showed atrong bloom. Unfortunately, May was very dry and hot when fruits were set and swelling and this checked the crop considerably. Only 36 inch of rain fell here daring May. Small fraite are abuadant. Gooseberries formed a remarkably heavy crop. Raspberries were plentifal, bat the fruita rather amall. Nats: Filberte average crop; Walnuts the heaviest crop I ever saw, and the branches are already bonding with the weight. Owen Thomar, Royal Gardens, Windsor.

Dorsetshirb,-The Apple trees and baches givo promise of a very fine crop, and the beat of them are Annie Elizabeth, Beauty of Kent, Bismarck, Bromnlees' Rasset, Davonshire Qaar renden, Datch Mige nonne, Irish Peach (very fine), Kerry Pippin, Kerwick Codlin, Lord Saffiold, Margil, Northern Spy, Reinette du Canada, Ribaton Pippin, and Warner's King. The best Peara are Bearré Rance, Bearté Diel, Glou Morceara, Marie Louise, Willisms' Bon Chrtien, Thompon's Seckle, and Catillac. Raspberry Saper lativeshould bs more known, ae it ie a very fine variety, and a heavy cropper. Strawberry Royal Sovereign, fruits of which were ripe here on May 29 on a south border, in point of earliness is equal to Noble, and much superior in quality. Thos. Denmy, Down Howe Garden, Blandford
Hampahiar -Applea are an average crop on the whole, some varietien, as for instance, Lord Saffield, Lord Grosvenor, Warner's King, Blenheim Orange, Cox's Orange Pippin, and Stirling Castle; Mère de Méage, Irish Peach, King of the Pippins, and Devonahire Quarrenden, are bearing heavily; otherf, such as Ecklinville, Lady Sudeley, Bismarck, Lady Henniker, and Golden Pippin have a very thin crop. The trees are very healthy, and free from ino sect pente of any description. Cherries were ro markably good, May Dake, Governor Wood, Eliton, and Bigarreas Napoleon were the most astisfactory varieties. Strawberries have borne immense crops of fine frait, Royal Sovereign and Sir Joseph Puaton eapecially. Raspberries suffored from the frow E. Molymenz, Swammore Park, Bishop's Wallhem

Apples are large and early, but many of the fruit dropped, I think for the want of rain; good crops on Kenwick Codlin, Lord Suffield, Blenheim Pippin, Hawthornden, Cellini, and Iriah Peach. Pears, good on tue walls, but the fruitn have dropped badly trom the cold nighte and want of rain. Plums good on walls, and very early. Peaches, a fair crop, the trees clean, and look well. Damsons, plendid crop. Strawberries were a bad crop. Rapberries, on the contrary, were a good crop, but auffered from drought. Wm. Smythe, Basing Park Gardens, Alton.

Keat.-Apples and Nate are the crope of the season, and the rains we have had will assist them greatly in swelling out. Pears are rather thin in this district. W. Craik, Hothfield Place, Ashford.

- Apples, especially early kinds, are very plentiful, later kinds more scarce; the fruit promise well, although many have fallen through drought. Blenheims are very good indeed; Lord Derby, Warner's King, and many others well laden. Pears short, but promise to be of good size and quality. Plums scarce. The dry weather han been all in favour of Cherrios, and fine fruitm bave been marketed. Peaches and Nectarine: plentiful, bat will be rather amaller than uaual through drought. There have been heavy crops of Strawberries, bat the season short; late kind did not grow so large, though good-flavoured. Carrantegood. H. Markham, Mereworth.
- Applea form a aplendid crop around here, almost all the well-known varieties are cropping remarkably well. It in really murprising how well the fruite have developed daring the drought. Blenheim Orange on large trees are carrying very heavy crops. Worcester Pearmain, Irish Peach, and Quarrenden are found to be smonget the very best for marketing, being sold at the foot of the ladder, and generally realise good pricea. Cox's Orange Pip. pin is cropping heavily, and neceanitates a great deal of thinning to encourage fair size and quality. The old Ribaton Pippin is bearing well. In reference to this Apple, I find it neceasary to thin to a single frait, on account of the stalk being so short that they puch one another off before they have finished growing. Amongat some of the newer varieties I am fraiting this year, and which strike me as being good croppern are-Swedish Reinette, with a beautiful bloom; Barnsck B?anty, colours well, sn immense cropper; and Bramley's Seedling. This latter is fraiting well on the Paradise. Where it can be done, the fruit thould be thinned, as poor samplen this year are not likely to be of much use for marketing purposen. Damsone are a very good crop, but Plume varying. Peaches and Nectarine are a grand crop. I am calculating to grow about 12,000 this year. I gathered my firnt fruits on Jaly 22 from a west wall-the variety was Alexander. G. Woodward, Barham Court Gardens, Maidstone.

Middeesex. - Applee are most abandant, almost every tree bearing a full crop. Frait rather amall, but the late heavy rain will benefit them mach. Plum on walls were quite a sight. Early Favoarite is a variety that was ripe on Jaly 20 , and in apecially to be recommended as a firat-clase fruit for densert. A.F.B., Chiswick.

- Frait crope on the whole are a fair crop in this neighbourhood, but the dry weather told heavily upon the bash-fraita and Strawberrier, and where water was not anpplied the cropt of the are light and amall. Piucu in many places are a failure Victoria eems to be the principal sort bearing well this season; the tree are very free from blight, so are the Cherriea. Cherries and Peaches have ripened very early this neason. Good Waterloo Peaches were gathered out-of-doore on July 14. W. Watson, Harefield Place, Uxbridge.
with the prolonged frost cansed a late bloom, with the result that mont fruits are plentiful. Apples and Pearm at one time promised a very heavy clop, but the great heat and the drought have caased many fruits to drop. Apricote are thin, but good. I never naw Peacher and Nec.
tarines more healthy, or bearing better crops, but ach trees have, daring the drought, required mach attention. Cherrie were all one could denire. Piums a mall crop, but the trees look well. Strawberries were very good, and very early; Royal Sovereign and British Laeen are varietiea that have given aplendid cropa. Currant and Gooseberriea good and plentifal; but mont mall frait in thi district suffered much from drought. $G$. Wythes, Sion House Gardens.

Surrex. - With the exception of Peara, all the fruit crop here are mont atisfactory. Apples (empecially on foung trees) have required severe thinning. Damsons are heavily laden. Strawberrie were of large aize and good fiavour. We commenced picking Noble on Jane 14, and finished with Latest of All on Jaly 16. Caterpillara have been more than asually troablesome on the Gooseberry bushes ; and owing to the continued drought, red-apider has made its appearance on many of the fruit trees. G. W. Cummins, The Grange, Wallington.

- Apples are looking well, and promise to be a heavy crop, enpecially Grenadier, Stone's, Peasgood's Nonsucb, Lord Suffield, Lord Grosvenor, Wellington, Allen's Everlating, Prince Albert, Lord Derby, and Oldenburgh, kitchen; Cox's Orange Pippio, Brownlee's Russet, Blenheim Orange, Kerry Pippin, and Mother, dessert. Red Currants and Goomeberries were very fine in quality. Rapberries wiffored mach from frost, but the fruit wat very large. C. J. Salter, Woodhatch Lodge Gardens, Reigate.

On some trees there are very heary crops of Apples, on both old and young trees; others have few and some none, in the mame locality. Pears not no good. Plums very thin. Young orchards in high cultivation, making aplendid growth. I never asw Peaches on walls looking better, both in fruit and foliage; small fruit of all sorts plentifal and good, with the exception of Raspberrien, which are very mall. W. Miller, Ruxley Lodge, Esher.
Sossex.-Plams in this district affored much through the severity of the frost daring last winter, particuarly those in exposed places, the consequence beiag a bhort crop. Many of the Dimson trees were almost killed by the frost, Frogmore Prolific nufferiag the most. Apple are an abandant crop, but the frait is mall for the time of year. Pears on trees in the open are a very partial crop, and Cherriea were never more abuadant, or of finer quality. Peaches are small, owing to the dry weather; and the same may be said of Apricots and Nectarines. Strawberries have been very abundent. Black Carrants were the heaviest crop we have ever grown. H. C. Prinsep, Burted Park.

Wilis.-Apricots, Peachen, and Nectarines, on which the blooms wert protected from froste, set immense crops of fruit, thereby necensitating evere thinning of the latter. Apple trees in orcbards are heavily laden with frait of good quality, at also are espaliers in kitchen gardens, inclading treen of Aunio Elizabeth, Red Astrachan, Baaty of Buth, Junesting, Irish Peach, Stirling Castle, Keswick Codlin (a never-failing cropper), Emparor Alexander, Dachest of Oldenburg, Ecklinville Seedling, \&c. ; the treen, too, are in good condition. Plums and Peart geriorally are under sverage. Gooseberries, heavy crop. Carrants and Raspberrie average. Wainats are a heavy crop, and the asme may be said of Filberta and Cob nuts. Altogether, the frait crops of 1895 miny be atated at being highly asiafactory. H. W. Ward, Lonqford Castle, Salishury.

## 7, ENGLAND, N.W.

Lancasmirr.-Fruit treen are clean and hoalthy. Apples and Pears are a good crop, slithough many of the fruit droppsd in consequence of the drought. Damsons are very plentiful, and other kind of Plums are as good as I have seen them. Gooneberrien and Rapberries had heavy crops, and the fruit of the latter old at 5o. per dosen quarts. Strawberrien abundant, and secured withont much loes from wet. "Growers for maflet in this part confine themselves to Barnes' Prolifc, premumably a
local variety. W. ${ }_{2}$ P. Roberts, Cuendon Hall Gardens, Preston.

- Apples small through drought. Pears plentiful on walls and trained treen. Damsonsare a very heavy crop, a circamatance that occurs about once in even yeart. B. Barham, Croxteth, Liverpool.

Westmoreland - Apple and Pear trees are very clean, and the good bearing varietie have excellent crop contidering the sunless anmmer we experienced last year, and the unasaal amount of east wind and frots this meason. W. A. Miller, Underley Gardoss, Kirkby Lonedale.

## 8, ENGLAND, 8.W.

Cornwall. - Fruit crops are very good on the whole, the only deficiency being in Raspberrie and Gooseberrien: Peachew, Nectarines, Cherries, and Currants eapecially being good. Strawberries were an immense crop, and very fine, Sir Joseph Paxton and Laxton' Latest of All being the beat. Alfred Read, The Gardens, Port Eliot, St. Germans R S.O.
-The Apple crop in Eant Cornwall is under average, but many varietien are carrying a good crop, and the fraits are large and clean; Blenheims, Cox's Orange and King of Pippins being the best. Pears are good, and, at present, show no signs of cracking. Strawberries have been aplendid; in spite of the heavy crop, the late fruita awelled up well, Latest of All on a north border giving us nome grand fruits. Cherries also have been very fine, the dry meason uniting them on our heavy moil. Buah fruite abundant and good. Charles Page, Bocomnoc Gardens, Lostwithiel.

Applo-tree gave promise of abundant crops early in the season, bat fully $t$ wo thirds have fallen, many of the trees being left without a single fruit, the result, I think, of the severe and prolonged eaterly gales. Cox's Orange, Sturmer, King of Pippins, Mère de Méaage, and Stirling Castle, appear to have stood best. Pearl are numerou enough, but promiss to be very mall. This is not a good Cherry district, but they have been exceptionally good with me this year. Peachesand Nectarines are a grand crop. Plums are a complete failare. Medlars and Qainces are very good. Buth-fraite are all good, and grown under permanent wire-net, which is much less trouble than old fish-net, and less expensive in the long ran. When I first adopted it ten years ago, I was told that caterpillars would never allow me to have a frait, but a little helibors powder soon deatroys them, and they have given less troable than under the old plan, though the birds are not allowed inside the wire, winter or summer. Wm. Sangwin, Trelissick Gardens, Truro.

Davonsmire.-The frait cropt are all alike good, and up to or beyond a fall average. All stone fraite, especially Victona Plums and Damsons, are a full crop. The same of Peaches, Apricote, \&ec., and an almost entire absence of aphia and other insect life, and blotched leaves. The resalt is a very astisfactory promise for another year. Walnuts and Filbert most abundat, sud far in excess of what is ordiasrily seen. James Enstone, 38, Temple Road, Execter.
Gloucestershire.-The frait crop generally in this district is the beat I can call to mind for some jears. The trees are particularly free from all kind of ineecte, and have made good, clean growth. We escaped the frost of Jane 15 which proved so dianetrous in some parte of che country. Thos, Armold, Cirencuator Homen, Ciremocter.
Hemerondshram.-The fruit crops in thie diatriet are genershy very goad, and, considering the very dry weather during early enmmer, is of good quality. The blowom was very abundat, bat the grab has been vory bad in wome parts. Frank Harris, Eastnor Gardens.

- Fruit crope generally are good, and the fruit clean, excepting Apricots, which are very much apotted and unkind. Scrawberries have heen a heavy crop, and the dry weather was favourable for keeping the fruit when ripe. Thos. Spencer, Gondrich Court Gardens, Ross.

Monmouthenire.-Strawberrie were a good crop and of good quality. Bach fruits of all kinds were remarkably good in every way. Plums are a good average crop, Victoria, Early Transoarent Gage, Kirke's, Jefferson's, and Coe's Golden Drop are heavy bearers. Pears are partial, the beat cropa being upon weat and mouth walls, those on east walls, excepting Marie Lonise, are thin; the cropa on pyramid trees are also partial. Cherrier are good, particalarly May Dake and Morellos. Apples generally have suffered from caterpillara where no meana have been adopted against them. Amongst the bent croppera are the following:-The Queen, Gatcoigne's Seedling, Grenadier, Lane's Prince Albert, Sandringhsm, Schoolmaster, Tyler's Kernel, Warner's King. Cellini, Brownlee's Ra*et, Coz's Orange Pippin, Kiog of the Pindins, and Worcanter Pearmain. Thomus Coomber, The Hendre Gardens, Monnouth.

- I do not remember observing anch an absence of blight among the fruit crops generally. Apples and Pears are good in various localitien, whilat in othere there are acarcely any, but on the whole an average crop will be secured. Small fruite are very plentiful and clean. John Loekyor, Pontypool Park Gardens.
Sombasetahire.-I never have seen a better crop of fruit all round than this year. The apring was most favourable, not having any late apring frost, and we had glorious summer weather, which has had a good effect on all kinde of fruit. I never remarked Apples getting high colour as early at they did this sesson. Apricots are grand. James Crook, Forde Abbey, Chard.

Worcmersasmins. - A very aatiafactory bardy fruit season, taken collectively, the trees being both clean and heslthy, aphis and winter-moth larvo having given very little troable. Applen of all kinde are heary, clean crope, slready highly-coloured. Apricota bloomed aparaely, but the quality is very good. Raspberry canes were injured by the neverity of the frost in January. Pears are \& very thin crop, although the treas gave an abundance of strong, perfect flowers. The fruit apparently et well, but the blossome mat have been unobaervedly attacked about the flowering period by the insidions Pearmidge, Diplonie pyrivors, at the young fruit dropped off in shoals when about the size of a cob-nat, and when opened they were found to contain acores of the midge larvse. How to prevent future attacks is a problem jet ansolved, and is a queation of the very greatent importance to fruit growern an well an to ourselves. William Crump, Madresfield Court, Malvern.
-The Apple cropin a good one, and the trees are healthy, and clearer of caterpillark than has been the case for neveral years past. The Pear crop in orchard and in the open, as might be expected, is light, after the enormoas one of lant year: but on the walle there are large crope of fine fruit. Plume and Damsons, as a rale, are average crops. Cherries have been most abandant and good. Apricote are very partial, and in my own case a complete failure. This I attribate to the wet, aunlewa atumn, and to the mubsequent severe frost, and alse to the fact of their being in a comewhat low and damp aitaation. 1 began gathering goodcoloured examples of Early Alexander Peach on Jaly 13. Strawberriea, Currante, and all buah fruits, with the exception perhap of Raspberries were abandant. Walnuts, and the common Hazalnute are plentifal. Fruit trees of all kinda are this year remarkably free from aphis or any other incect peate. John Austen, Witley Court Gatdens, Stowrport.

## WALES.

Cawboaserurs - 8 mall fraite have been very good; in fact, we have never had better crope. Applee are a very heavy erop, the branchen have to be applet are on many trees. Pears are sbout average crop, and very promixing. Strawberries were very good, although the sewon was a shoriot one. B. C. Whatiam, Cróswood Paik, Aboryfituith.

Denbighshiab,-Applen had an excellent appearance until the terrific thunderstorm of July 26, when they were teverely peppered with ice-hail, much of it measuring 1 inch in diameter, after which half the crop fell, but plenty atill remain, though much marked by the bruising of the storm. Weregiatered 306 in 45 minate ; nothing like it has occurred here within memory. Bash fruits of all sorts were excellent, and their ceason was prolonged by the late rains. Cherries were good crops, sud of good flavour. Apricote are extremely thin. Strawberrien were vary aboudant; Noble bas done splendidly, being early and large; Sir Joseph, very fine; Dr. Morère, a French Strawberry, of excellent merit for packing, large, flavour good; John Raskin was very good-in fact, all sortu, excepting President, which we ahall now discard. Victoria clase of Plums are heavy cropy, but Gage are thin; Damsons excellent. Birds have been less troublesome than for yearn. The long frost hat done good service in clearing away much of the American blight. Frost cleared off all weak fruit trees and busher. P. Middleton, Wynnstay Gardens, Ruabon.

Glamorganshire. - Apple and Peare are an abandant crop in this district. In the gardens here the trees have had to bs propped up to keep the branches from being broken by the great weight of fruit. Plame are an average crop, and the treea are freer from aphis than unal, notwithetanding the long-continued drought we experienced during early summer in this locality. Strawberries were very good considering the dryness of the meason. A. Pettigrew. Caitle Gardens, Cardiff.

- Apples are an exceptionally heavy crop, and very clean. Pears, average, but auch varieties as Winter Nelis, Glou Morcean, Louit Bonne, Chaumontel, Thompan'a, and Doyenné da Comice, are carrying heavy crops. Strawberrie have been mout prolific, and very fine, and the flavour all that could be wished. Plamt are quite an average crop, and very clean. Cherries I never remember being so plentiful. All small-fruits have been very plentifal, with the exception of Gooseberrien, these have been quite a failure in mome gardens, $R$. Miner, Penrice Castle, Swansea.

Montcomeryselas.-Very heavy crop of Pluma Gooseberries, and Applen. All fraite are clean and healthy and abundant, with the exception of Apricota. John Lambert, Powis Castle.
Pembrokeshite.-Applen are a very heavy crop the weather being fine and dry when the treen were in bloom. Pears are a very light crop, the treet having been fruiting freely this past two nessons, they appear to be exhausted to some extent. Plums, eapecially Victoria, Jeffermon's, Prince Eaglebert, and Damsone are a good crop. Small fruita were all good, with, atrange to say, the exception of Gooseberries, which were rather a light crop. Rsapberrien were very good, where the canes were not injured by the winter'a froat. Geo. Griffin, slebeck Park, Haverfordwast.

## IRELAND

Co. Demenv,-Apples and Peare are a light crop, but of good quality. Peachen and Nectarines are a good crop. Apricote better than they have been for some years. Cherrien very good. Small-frait of all sorts heavy and good, except Black Carrante, which were s amall crop, and poor in quality. G. $\mathrm{Sm}_{\mathrm{mith}}$, Vice-Regal Garden, Dublin.

Galwar.-Notwithatading the exceedingly dry month of April, May, and June, we never had a more plenteous crop of all kinds of frait, the quality has also been all that could be devired, and with a moderately fine autumn, Apple and Peare are aure to finiah off well. John Cobban, Garbally, Ballinasloe

Kraey.-Applew promiae an abandant crop. Reare are rather thin; there was plenty of bloom, but a cold eat wind blew mont of the time they were in flower. Plama are good. Gooseberry, Carrant, and Ravpberry crop wore excellent, and wo have hid an abun-
dant crop of Strawberrien. Geo.M.Breeze, Koimas Gardens, Killarnyy.

Kildare.-The fruit cropy, excepting amall fruith are mach below average. The blossom was abundaus, and appeared strong, and apparently the light cropin the effect of imperfectly-ripened wood. I am incliaed to think that the Apple trees have not recovered from the effects of the heavy crops they carried two yeur ago. The fruit of Apples and Peara are small, and require more heat. J. Wyke, Bishop's Court, Strafat -- With the exception of Apricots, all fruita an plentiful and of extra good quality, and, owing to our atrong-holding soil, we had no necesaity to wam, which, at a rule, does more harm than good. Pean are a very heavy crop. Rasperrie are the finen crop I have ever seen. Strawberries also were exth good, and lasted over a long period in apite of tho dry season. Fruit trees of all kinds are very hallthy and clean. Frederick Bedford, Straffan Hows,

King's County.-The fruit crops collectively are good in thit district. Owing to the severe winter the trees were a month later than usual in expanding their blossoms, consequently they eacaped the apring frosta which often deatroy our frait cropa, and good set way the result. Pears are the only excep. tion here, they being but a very indifferent crop, and small and late. T. L. Hart, Birr Castle Gardam, Parsonstown.

Longeord.-The fruit crop has been on the whole very good; not for many years have I seen tho Stramberries so good in quantity, aize, and favour. Small fruits also very fine. J. Rafferty, Castle Forbu, - Longford.

Co. Watarford.-Apple are very good thia yar, both early and late varietien. Annie Elizabeth is loaded with fruit; this variety never faile hers, Hollandbury alwo beara well, and is a noble-lookiog iruit. Strawberries inever did so well with mem this year. Thos. Singleton, Curraghmore, Portan, Ireland.

Wicklow.-I have vieited a good many of the leading gardens in this connty, and in slmost evers place I saw a capital crop of bush-frait, Applen, Pears, and Strawberries; but Apricots are ruy acarce. Levi Childs, Kilruddery Gardens, Bray.

## CHANNEL ISLANDS.

Jerser.-Plums, which promised well, heve been affected by the drought, and are a light crop. Tho yield of Strawberries was poor on light noila, bat abundant on the heavy land. Many Fig trees wert destroyed by last winter's frost, bat those that nulo vivid have generally an abandant crop. Correspondent

Gusessex.-Apples have no doubt benefitad by the abnormally light crops the trees carried lu year. Peara also are good. Stone fraits, bowerep are far from a success, probably from wat of rel matarity in latt season's wood-growth. Strs. berries were a great auccent, and stood betiwn than could have been expected with ach of weather. The younger beds, however, did mach tho best, and scarcely felt the droughto Rupberty canes wre much damaged by the eovere and exta ordinary long frost we had laat Febramy. Chat. Smithson, Caledonia Nursory, Guernsey.

Isle or Max. - With a few exceptions, the Apple and Pear crops in this diatrict are very poor, Goole berries, Raspberries, and Carrants were very plentiful and of fiae quality. Strawberrien very gova, ano over, owing to the long apell of diy Wow James Murphy. Cronkbonrne Gardens, Isle of Mow

The Carob bean (Cematonia giliqua)This is exported in very large quantitie tram Napley, boing aent ia balk to Rassis add Germititit bat the pods are packed in birrela fot tha Aarly, and market. They are uned a good deal is faif, trell are anid to be an excellens horse-food. Tod rupt are deacribed as being of two kiady, called ruph" tively the "Honey Carob" and the "E
the former being the sdarcer of the two.

## [EUPATORIUM SERRULATUM.*

We are indebted to Mr. W. E. Gumbleton for the apecimen from which our illustration (fig. 50) was taken. The plant is a native of Uruguay and Rio Grande do Sal, Brazil. It was described long ago by De Candolle, and afterward by Baker in the Flora Brasiliensis. It was introdaced into cultivation by M. Ed. André from Uraguay. It in a abrubby plant, 5 to 6 feet high, and the flowers are a rosy-lilac. Oar illustration and

## Orchid Notes and Gleanings.

NATURAL HYBRID MILTUNIAS.
Flowers of two very singular, diatiact, and pretty Miltonias come from Mr. John Cowan, Managing Director of the Vineyard and Narmerien, Garston, Liverpool, accompanied by the following note: "Herewith are two flower labelled A. and B. of plants received from our collector in Brazil as nataral bybrids of Miltonia candida grandifora and
folding over the colamn; white with a purple diec, and with traces of the fine alight ridges seen in M. candida at the base of the lip, bat with the bi-lamellate creat of M. caneata atill more pronounced. The colamn is booded and tinged with lilac. The flower are much firmer in texture than those of M. candida, and trace of the two repated parent are evident.
Variety B. is essentially the asme in the main points, but the sepals and petals have the chestnutbrown barred with the pellow markings of M. candida, and more distinct traces of that specien appear in the


the deacription and figure in the work cited below preclude the neceasity for giving fuller detaile now. Io this country it mat probably be grown as a greenhoure plant, I at we are informed by Mr. Gumbieton that after keeping it under glame throughout the winter he piaced the plant in the open ground, where it has foimed a good-nized buth, too large to be conveniently moved. It will be intereating to acertain if it will urvive the winter ander auch condition.

[^17]M. cnneata. The plants in appearance certainly bear out the anggeation. We shall be glad of your opinion of the flowers."
The flowert weem to point concluaively to the correctness of the collector's auggention. The variety marked $\mathbf{A}$. has the erpals and petale an in M. cuneata, but alighly brosder, and exhibiting in a marked degres the peculiarity of that apecien, in the flatly diaplayed sepale and petale being abruptly turned backward and upward at the tipa. Colour wholly light chestaut-brown with a alight purple shade, and with yellow tipa and narrow yellow margin. Lip irregularly ovate, fat, with up-turned iiden, bat not
irregular margin of the lip, which in rather more taraed over the colums at the bare than is the variety $A$. Both are very pretty and highly intereating varietien. J. O'B.

## Cfparpmica Kimbalitanum.

The September number of the Orchid Review (p.271) contains the following farther note respecting Cypripediam Kimballianam, written in reply to Mr. O'Brien's remarke at p. 154 of onr intue of Augat 10, which neem to clear the matter up:
"At p. 238 of our last innue some remark were made rempecting Cypripediam $\mathrm{K} \cdot$ mballianum, and
the circumatances under which C. prestann has received four additional names were pointed out. We have oince diacovered that there are two Cypripediums bearing the name of C. Kimballianum, and that both are included in the above-mentioned note. We therefore hasten to asy that the reference to the Gardeners' Chronicle figure - the sapposed hybrid between C. Rothechildianam and C. Dayanum, which may be termad C. Kimballianam No, 2-mut be excluded from our note, which will then only apply to the original C. Kimballianam, otherwise C prestan. Of this recond C. Kimballianam we have now seen a leaf and fower, through the kindness of the editor of the Gardencrs' Chronicle, and it certainly doen appear to combine the characters of C Rothachildianum and C. Dayannm, and as both are Bornean, it may be a natural hybrid between them. Mr. J. U'Brien comments on our note to the effect that the writer has 'only (the italics are ours) aucceeded in introducing farther confusion'-in ahort, has 'discovered a mare's nest' (Gard. Chron. for Auguat 10, p. 154). It is true we did not discover that there were two C. Kimballianumu, but we certainly cleared ap the complex history of the original one. And what of the other? A figure was given, with the solitary atatement that it wat anpposed to be a natural hybrid between C. Rothechildianum and C. Dayanum. There is no deacription, and nothing to warn one that it is not the plant hitherto known an C. Kimballianum. As a matter of fact, it is not permimible to call a second plant C. Kimballinnom before the first is diaposed of However, we have now disponed of the firat and cleared the way for the recond, but it mast be written with the sign of hybridity added, thas: C $\times$ Kimballianum. We regret the error, but our readern will now be able to see how we 'jumped to conclasions,' and apportion the blame. It now remains to add a brief description of C . $\times$ Kimballianum: the dorasi sepal is 23 inchen long by 13 broad, whitinh-gellow, with seventeen to nineteen purple-brown lines. Petala nearly flat, 4 inchea long by eight lines broad at base, narrowed to an acute apex above; atrongly ciliate; whitiohyellow, lined with purple-brown towards apex, 24 inchee long, parplish. Staminode obcordate, with a tooth in the sinue, parple-brown, pabescent all over. Leares strongly teaselated. In most re apects the plant approaches C. Rothachildiannm, but the marbling of the leaf, the hairs of the petals, some of which are 2 咅lines long, and the shape of the staminode, all show the infuence of the other apecien. The haira of the staminode mant have come from C. Rothechildianam, bat thowe of the petala can only have come from C. Dayanam. If it is a wild plant, it in a most interesting one, for there can be little doubt as to its parentage.

## The Rosary.

## THE MULCHED ROSE-GARDEN

Ir wam a real pleasare to read a word of proteat from so capable a ronarian as "Wild Rose" in the Gardeners' Chromicle for Augast 24, againat the prevalent but nasty practice of applying malodorous mulchen to Rones. Many who are not exhibitore do it, and thus render the Rove-garden, if not the whole of their garden, anteneble daring the monthe of May mad June-the mont lovely season of the jear in any garden.
Nearly all of this objectionable feature of ehampion Rove culture can be earily got rid of by well manuring the land with pig, cow, or horse-dang in a rotten coadition, and in no other way thould manure ever be applied, unlens the noil be of a close retentive natare, when half-decaged manare may be applied. Thin shoald be dag in after the apring-praning is finished, and not jast roand aboat the plante, but all over the bede, wo that the roots are compelled (an they do readily) to search for it away from the immediate vieiaity of the root-atock The extra degree of moiature which is alway present in the aoil where rieh moiat manure lays, is what lares the roots from home, and thit ezarch for mointare in most active duriog a period of hot dry weather. If the plant sequirs further nutriment daring the month of June or Jaly, when perhap: from excenive wateringe the dug.in manure may have lout some of ite active principies, the ground thoald be drawa together
in ridges or heapy, and nome more manure spread over the roots, but not in contact with them, the ooil being immediately returned over it, and made level and neat-looking with a rake The manare may be ever so offensive when that applied, it is aoon deodorised when brought into contact with the soil, and enpecially if the latter be dry. Moreover, there is no straw and litter to offend the eye, or blew about the garden. The uanal advice given, to lay on a mulch, and sprinkle some earth over it, ontensibly to keep it in place, will not do; observant eyes see through the trick, if the odour does not reveal its presence. The same when applying atrong liquid manure ; it is better to draw drille with the hoe, pour the liquid into these and close them in again. This is a method which the Chineme gardeners adopt, not from any ideas of the cleanliness of the practice, which is far from them, bat because they have found out the atility of shatting up the fertiliser in the earth, instead of letting it lone its virtae, as it would do, by exposare. Voidings of animals of nearly all kinds and hoase-slops can be so buried in little drills, and rendered innociona, as well an useful, as plantfoods. The method is applicable to any kind of gardening in petto: an, for instance, to Dahliav, Hollyhocks, Carnations, Panaies, herbaceous perennials, vegetables of all kind, fruit-treen, Tomatos, and Strawberry-plants. In regard to aalads and Strawberries, it is a method of application that neem eminently desirable, as, by careful une, the manure, whether liquid or solid, need not tanch any part of the plants.

Whatever be done in the way of manaring Rosebed, it will not do for the caltivator to neglect the atirring of the soil with the Datch-hoe. The hoe should always te run through the beds after rain, which cake the sarface, and in a general way, once in a fortnight or three weeks.

## FUNGUS ON FLIES, AND

## PLANT-LICE

A spgcial interest attsches to thone specier of fungi which attack living insects, on account of the experimente which have been made in inoculating some of the most pernicious of garden peats, and prodacing artificially a destructive epidemic. When these experimenta have been anfficiently repeated and confirmed, the resalt will be that the deatinies of the plant-lice will be ia the hande of the horticaltarist, and this would in itself be sufficient to inveat all the details of this phase of paranitic life with abiding interest. The small group of fangi to which theae particular apecies belong bas been called the Eatomophthoracea, and they have an affinity with the fish-mouldp, or Saprolegnim, by reason of a form of conjagation and the production of zygospores. In former times, and for a long while, the only represeatative known in this country was the mould which attacked honse-flies in the aatumn, and fixed them in death to the window-pane. Oa the Continent a few other apecies aoon came to be known, but as the prenent time not fewer than forty or fifty species have been described, of which one has this summer bsen detected at work upon myriads of fies, in the Midiand connties.

The character of these fly-moald has been very fairly made out by a serien of carefully-conducted examinations, which are embodied in a Monograph, published by Professor Tbaxter, in the United States. At firat they attack and absorb the whole internal economy of the insects, and then the conidia appear like a mouldy or powdery mass on the surface of the insecte, varying a little in mode according to the different apecien.
The Eatomophthoraceex are diatinguished by the production of internal byphee of conaiderable diamater, and with fatty contenta, which at length emerge from the host and prodace whitinh maseen, bearing at their extremities large conidial sporen, which are violently discharged into the air, and propagate the disease. In addition to this method of asexual reproduction, there is another which terminates in the development of thick-walled reating
sporen, which may be either aexually produced or zgonpores, or anexaal and azygorporen. Then Enally zow houts. Infection takes place from contac of one of the conidia, which adheren to to surface of a healthy insect, and germimena there, whilst the germinating thread entern than body. Conidia absorbed with the food do sppear to produce infection. After the germinutin thread entera the body of the insect, it growa rapith and produces "hyphal bodies" of variable nizs ut shape, which are constantly reproduced by genem tion, until the body of the host insect is mona lese completely filled with them, and the nutan contents of the body absorbed. Each of them hyphal bodies is capable of developing one or mom threads, which are simple or branched, and prome directly into the outer air, where they become conidia-bearers, producing conidia at their extremi ties. These conidia are formed by conatriction, and are at first contained within a mother cell, which when matare, is ruptured, and the conidinu in ejected to a conaiderable diatance. The conidie themselves vary in form and sizs in the differm apecies, bat are mostly hyaline, and their content contain fatty globulen. The diacharged epore adhem to any object with which it comes into contact, ad if it chances to find a saitable hont, proceeds io germinate at once ; bat if it fails to find a anitabl host, it then forms a secondary conidiam, and mater another effort at dispersion. If the second conidire faila, a third may be formed from the acoond in similar manner to that in which the necond mu prodaced from the firat.
The "hyphal bodien" already referred to a p pro dacing conidia-bearers, may also be concermod in the production of resting-spores, either with or with out conjagation in the body of the host. Anexil reating-spores are either formed by the conveniad of a byphal body directly, or by budding from tho hyphal body. Taey are usually aphericall, with thick cell wall of three layers. Sexaal reating apore of zygoupores,* are produced an a resalt of the coajuge tion of opposite threads, by a method which reminill one of the conjagation of the filamentary fream algx: The matare resting spores are apherical mostly amooth, and acarcely coloured.

The oriziaal and most ancient apecies of thin family is Ecopuss masce on house-fien, to whith was aubsequently added, as an inhabitant of thil country, Empasa culicis on gnatt, \&ce; and thin was followed lately by the identification of Eator mophthora aphidis on various apecies of plim lice. Last of all has now to be added Empan conglomerata on a dipterona fly (Melanotoman acalaris), which have been found attached to the fiower-ppike: of a grasn in myriade pers Birmingenm. The apecies which is of mont in tereat to our readers is that which attacks appides and it is in that connection that these oberratione are made. Df. Thaxter says that his frat acqusisith anca with Eatomophthora aphides was in a groes house daring 1886. In this situation it acted an decided check to the multiplication of the aplidide yet did not apread with anfficient rapidity to rath smoking" annecessary. Ho furtber atates the in one case he observed a large Hop-vine, won 20 feet high, completely covered with aphides, wild were killed off by this fangus in about two wime the affected hoats being fastened to the ander of the leaver, and to the younger shoow a pis by nambera. The destruction of colonies of appis this apecien or by Enpasa Fresenii soems is leand rule rather than the exception, and is at lean very common occarrence."
It becomes a practical question whether thit encouragement, and even the artificial apread of bo fungus amonget colonies of aphides maserraction powerfal agent in the fatare for the dean time is H plant-lice. The difficulty at the present rare appearance of the parasite in this couming consequently the rare ponsibility of them it diseased inaects, in order to place them
healthy colo lee ; but there is the conolation that every extenaion and diatribation of the fangus will help to apread the epidemic, and carry deatruction into the haunts of the plant-lice, as \& retribation for their past hiatory. M. C. C.

## DROSERAS AND THEIR CULTIVATION.

Teas these plants do not receive a more popular thare of the attention of horticaltarits is mach to be regretted; and to aczount for this neglect is difficult, the planta being of easy culture, and taking up bat little apace. Not only is the genas of intereat on account of the insectivorous nature of the foliage but when well grown the plante are pretty and attractive. The members of the genus in caltivation are few, and greenhouse treatment suits them, if frot be excladed. They are moatly natives of the Cape of Good Hope, Auatralia, and New Zaaland while thowe species found in Britain are eatily procared. The plants should occupy a atage where they may be fally exposed to the san, and where the air circulates freely aroand them. Bat although they ancceed in an exponed situation, they mast be kept damp about the roote, and perhape the bet material apon which to atand them is a shallow bed of sphagnom moss, this retaining moisture for a long time. Water should be copioualy afforded, never allowing the compost round about their roots to become dry, and then the secretiona from the glands which give the plants their characteriatic beanty will be copions. If large massea are denired, it will be found advienbie not to disturb them every year, bat simply to top-dress them with peat and aphagnum-mose, which, with the addition of and and broken charcoal, forms the potting material. If single crowns are taken and potted singly, and if of the larger growing apecies, shifted into larger pota daring the aummer, langer leaves will result, but when seen growing together in clumpt they look at their beat; and in the cave of D. binata and D. dichotoma, this is particularly the case. Propagation of the two above mentioned apecies and D. capensis may be efficted by division of roota. If the roots of these are cat into lengths of about an inch, placed apon sand, and covered slightly with sphagnam-mosi, young plants are soon produced. In raising from seed, finely-chopped peat and aphagnam, with a good addition of sand, should be uned. The seeds should not be covered or allowed ever to become dry, and when large enough to handle the seedlinge ahould be pricked-out in pans. As growth towards the antumn ceases, they require a little less water, but sonfficient mast always be afforded to keep the compost moiat, and the roots and bada plump, or ahrivelling will take place, and a weakened growth will result the following year.
The following are amongat those most generally cultivated:-Drosera binata, a native of Australia and New Zewland, leaves seldom more than 1 foot in height, which are once dichotomoanly branched, the namerous tentacles being of a dark red zolour, the glands secreting very copionsly; this is one of the beat in cultivation, and when seen in the sun it is a very attractive plant, and uacally capturen a fair number of insecta. D. dichotoms is anid to be ynonymous with the above, but is always a dintinctlooking plant with iter atronger twice-forked leaver, and lighter-coloured tentaclen. It is the largest apecies in cultivation and makes a good panful, or single apecimen; pinching off the flowers imparts great vigour to the foliage. D. capeasis, as its name implies, is a Cape plant, with a short erect atem, and leaves about 3 inches in length, and a quarter of an inch in width; the tentacles are light red, and longent at the margins. D. Aliformis, a Nurth-American apecies, has long leaves, and flowers of a parple colour; the leaves apring from a amall balb-like bad. Do apathulata has a rosette of leavea with light-red tentacles and purple flowers, and is a native of Auatralia and New Zealand. D. Barkeana and D. ramentacea are South-African apecies, and are like miniatare form:
of $D$ apathulata, bat of a mach deeper red coloar. D. auriculata ponserses a slender stem with amall leaves, carrying long, lightibh-coloured tentacles. Othere which should be incladed are D. peltata, D. anglica, D. intermedia, and D. rotundifolia, the three latter natives of Britain. Drosophyllam lasitanicum, although incladed generally with thene plante, will be found to thrive in a compost of fibry loam and broken crocks. Uatil thoroaghly eatablished, they will need more care in watering. As soon as posibibe after germination, the amall seedlings should be placed in thamb-pote, an if allowed to stand in the seed-pote, less saccess will be made in their transference. Roridulas, whict are the giant of the genus, were growing here some fow years since, when plants attained the beight of between 5 and 6 feet. Lately peed, of R Gorgonias, received through the Royal Gardens, Kew, have germinated, and although only about 1 inch high, already show the gland apon their leaves. This, so far ae in at present known, under caltivation enjoy: a rather higher temperatare than many of the Droseraf, but with a better knowledge of the genas and ita requiremente, it may perbaps be found to grow as an amociate of thene planta. The wellknown North American Venas Fiy-trap, Dionea Mascipula, is very abandant, and succeeds well under the same conditions an afforded the other genera of this order, and is now forming ite remark able leaver. R. L. H., Edinburgh Botanical Garden.

## THE TUBEROUS BEGONIA.

Tar following extract are taken from a paper read at the Shanklin Literary Inatitation on Augat by Mr. W. W. Sheath. After giving a brief hittory of the origin of the taberous Begonia and its gradual evolation, Mr. Sheath detailed bis methode of crons breeding and seed-asving, and then went on to consider the method of

## Propagatios.

The B-gonis may be propagated by cuttinge as well at from seeda, and this process is uavally followed in the case of named varieties (oingle or doable). The cattinga can be taken when the planta atart in apring, as in the case of Dahlia cuttinge, about 3 inches in length, or when the plants throw side-shoots later in the season, but where ponible, they ahould be taken with a heel. Insert the cattinge round the aides of amall pote in light andy soil. I have found a balf-spent hotbed a good place in which to strike them, where the bottom-heat would be in excess of the top-hent, and not too moist, at they frequently damp in too moitt an atmonphere, or on thaded thelves in warm houses. Tney soon form roote in a exitable position, and also s bulb at the base of the catting. If cuttinga were taken in opring, they woald make flowering plante at the end of the anmmer, but later-strack cattings would not need repotting, but shoald be left in the pots they were atruck in until the following spring. In any case, plants from cuttings are not so vigorous as healthy seedlings.
Sow the reed from the middle of January to the middle of Marcb, to obtain flowering planta the same year, or they mag be sown in the summer and allowed to remain in the seed-pans or boxes antil started the ennaing apring. The following method is that to be recommended:-
The soil in which to sow the seed should consist of two parts loum to one each of leaf-monld and sand, and heat it anfficiently to destroy roots and seeds. or insects the soil may contain.
Drain the pans thoroughly, and fill to within an inch of the top with the compost, and make perfectly emooth and level, then give a good watering, and allow the eoil to drain well before sowing the seed. Sprinkle the reeds evenly and thinly over the surface, and then cramble enough dry and to keep the reeds from blowing away, but do not cover them entirely. Piace aheeta of glass over the pana, and also cover with paper for nine or ten days, so that the seeds be in semi-darkness ; put in gentle hot-bed, or in a temperature of $60^{\circ}$ to $70^{\circ}$, turning the glans daily to prevent the evaporated moisture from dropping
on the reed. Examine the seed pane, and if they thow any signs of dryneas, immerse the pans in water antil the moirtare ic sees aently to percolate the surface, not allowing it to float over the top, or the seed woald be diuplaced.
In aboat three weeka the seed abould have germinated aod be showing above the soil, bat be carefal not to allow the sun to shine fully on it at thic stage, or a few minates would soffice to rain them. As soon as the young seedlings show the firet leaf. they matt be pricked off. Prepare pans or boxet similar to the eed-pans, making the surface amooth and moist, and with a notched stick or label make a small bole in the soil, and lift the seedlinge carefally and drop in holee about an inch apart, gently presting the soil to them. It is qaite necenary to do this, as nometimes they damp off rapidy, especially if the sorface of the soil is at all green. It is a tedions affair, bat will repay all the troable bestowed on them in nach a small state, and can be done in eveninge with advantage. Water gently with a fioe rose to settle them, and place in a warm, moist temperstare, and shade from the san, as near the glass as postible. A, woon as they touch ench other they should be again pricked out or potted in amall pots, and kept warm antil they make a fair growth, when they will bear more air and light, and gradually harden off to the greenhoase or frame. If required for pota, ahift on into larger ones as required; but if for planting out, keep in the boxes and plant out the firat week in June.

## Pot Colture.

The ail for pot cultare shoald consist of the following ingredients (for the firat potting): 2 parta friable loam, 1 each of lenf-mould, and, and wellrotted manure; for the larger pots, use 3 parts loam in a rougher atate, 2 parta leaf-mould, 1 part of thoroughly decayed cow-manare, if obtainable, or other well-rotted manure, powdered charcoal, and enough sand to keep the whole porous.
If required to lower in May, thes shonld be atarted in Jannary, in a temperature of $60^{\circ}$; bat for ordinary eummer dieplay, March would be soon enough. Drain the pote in the ordinary way, uaing tizes according to the sixe of the bulbe, allowing an inch or more outaide the bulb to the sides of the pot, press ing the soil gently for the first potting, keeping the crown of the bolb level with the noil, not much water being required before they atart into growth. The top of the bulbe is sometimes bollow; where this is the case, water mast not be allowed to lodge there, or they will toon decay
As soon as the roote begin to ran round the sides of the ball of soil, they will require a thitt into a pot one or two sizes larger, bary them an inch deeper than in the previous potting, and prese the woil more firmly.

Unless plante of large sizs are required, this potting would be anficient, and planta can be kept growing late in the season, when the pots are full of roots, by the application of liquid manare in a weat atate, auch as soot and cow manure, immerned in baga in a tab of water, and ased in a clear state.
Avoid artificial or atrong manares either mixed in the zoil, or at a topdrescing, as, unless used by experienced hands, they will soon do harm to the plants.
A good light airy greenhouse, shaded from arrong annlight, will suit the plante when in bloom, or they will accommodate themeelves to almont any light airy position, whether in the conservatory, cold frames, or the cottege window, and may be termed air-loving, light-loving, and moitare-loting plants.

After the flowering newson is over, ripen the balbe by withbolding water gradually, and after the topn are died down, they may be laid on their sidet, ander greenhouse atagee, in the pota they have been grown in, covering over with alates or momething to keep the drip from the pota, or in a dry front-proof celler or room.

## Beddina

The Begonia has a great fatare before it an a bedding plant, as it can be used in so many way with such good effect. Oaly a mall space in required to
atore a great quantity through the winter season, and thus hested glass mtructures are not required to preerve them as they are for most bedding plantu.
Seedlinge are best for bedding, making robust and free growing plants, and these can be raised easily and in great numbers. Prick out into boses and tran plant in frames, or in sheltered places outdoors.

I generally plant out in framen, and after the plants are well into growth, throw off the light entirely, when they will flower freely in the antumn.

If certain colours are required, now is the time to elect them, and if any choice varieties present themelves, they can be marked for pot calture the following eason, or taken ap and carefally potted whilat in flower.
In autumn, previoun to the occurrence of cold nights or heavy raine, the light can be pat on to haten the ripening of the bulbs, and ahould be taken up when turning jellow at the top, or before frosts appear.

I like to dry the bulbe thoroughly after taking them up, and then to tore them thickly in cutting-boxes, crowns appermost, with some fine dry soil under and over the balbs. Keep in a dry place, which does not fall below $40^{\circ}$ in winter. A great quantity can be atored in this way, as the boxen, if of the ame sizo, can be piled one on the other.
In March, look over the tubers, and dircard any that may be decayed, and lay the reat in boxes on neveral inche of fine woil, sach as two part fine loam, one part each of leat mould and and, giving the bulbe room enough to transplant, with a ball of earth at bedding-time, and jast covering the bulbs with moil.
I find here in the aouth on the andercliff thone for bedding do not require to be atarted in heat; and if pat into pits or house where heat can be turned on in cold and fronty weather, they will be quite forward enough by the end of May. Care is required in the watering of these, as in the caue of potted plants, to avoid water aettling in the crowns.

In preparing the bedn, fork in light and gritty soil, such as leas-mould, road-grit (if the staple is heavy), and well-decayed manure (cow-manure if the moil it of a andy natare). In the last week of May, if the weather is fine, they caa be affely bedded out from the boxes, which are preferable to potted plante, as they lift from the boxen, with a mat of fibrous roots, and if carefally handled receive no check. Never let them auffer for want of water. When in full growth they revel in a good drenching, as last year, 1894, being a wet rearon, Begonias stood out in their glorg, whilst the zonal Pelargonium: made but a poor ahow. They continue to flower antil the autumn wind and frost pat an end to further growth, when they must be taken up and dried off, as directed with the frame needling.
I may here mention that Bogoniam make a good effect when uned other way than in the mase, auch as an oblong, oval, or round bed, dottod with Cannan, or as a ground work to abtropical beds, when thene are planted thinly and edged with bicolor and tricolor Pelargoniums, edged with Lobelis or Pyrethrum, or both; alio in larger bede, where pyramid Fuchaia are planted nome diatance apart, leaving room for Begoniat all round, edging with Golden Fegther, Lobelia at an outride finish.

## Insects.

The Bogoniae are not much ubject to insect pants but greenly in sometimes troublenome if grown in too much heat, or in too close an atmosphere. Potplante are sometims infestec with a kind of rust on the wtem and learen, whick aome growern asy in a fungus, but I have found it more prevalent when in too much heat in apring, aloo by audden changen of temperature, or draughtu, by iwperfect drainage-in fact, by anything that would cause a check in their growth, this ruat cauning the blooma and foliage to curl, and to be very brittle, mapping off at the least touct. When auch is the cape, atand them out in recover themeelven.

A mall maggot or grab ametimes does much miachiof by eating the bulb auderneath, and if not
detected or deatroyed will noon rain them. It is the ame grub often found eating double Primalas, Cyclamen, and Echeveria retuan. It in the larva of the Otiorhynchas alcatas, a brownish, hard weevil, aboat half an inch in length, and when disturbed, closes itself somewhat, and appear inactive. It can be caught at night when feeding. It will also eat the shoots and bunches of the Vine, \&co; and if in any quantity ther do a grest deal of mischief. The grab also gets into the Vine and Peach borders, and eata the roote.

## Fruit Register,

## THE SPITZENBERG APPLE.

Tue Spitzenberg Apple always bringa a better price per barrel than others, and the question was recently anked of the conductors why it was that, as this Apple brought a higher price, more of them were not grown, and by thas well stocking the market with them, bring the price down. This is a question which could be answered only by those who grow this Apple. Some say that the reason why it is grown at all is that it comes into market at a time when other varietie are scarce; whise others contend that the pecaliar flavour, 0 grateful to most tasten, is what gives it more appreciation. It does seem that only orchardiste can answer this question. Meehans' Monthly for August.

## Beurré Clairgeau Pear.

Among the higher classes of fruite, as well as among Strawberries and other mall fruits, there are changes in popalarity from one variety to another, often without any apparent reason; while there are some that continue in popular favour for a long time. Among Pear, one of the comparatively old varieties, known as Beursé Clairgean, is still in as much demand to-day as it ever wat, and is one of the atandard winter Pearn. It large nizs has recommended it, as well a good colour and comparatively high flavour. Meehans Monthly for August.

## The Week's Work.

## THE ORCHID HOUSES.

By W. H. White, Orehid Grower, Burford, Dorking.
Lelia pumila. - The dwarf-growing Lælia pumila and its varietie Dayana and preatans are very charming little plants when in flower. All of them are best cultivated in amall shallow pans, and sumpended close to the roof-glam. A mall quantity only of peat and aphagram-mons is requisite for them to root in, and this should alwayn be kept fairly moist, but now that the plants have commenced to grow, and until this is completed, increaned supplie hould be afforded. Through the summer the plants have been in the cool-house, but it in now adviable to remove them to a light position in the inter-mediate-house. The white cale in very hartfal to them, and whenever it appears the pent must be immediately eradicated.
mabdevallias.-The majority of Mandevallias are amosgat the mont eanily caltivated of Orchids, and if well grown they form a very prominent feature in the cool-houme. Sach ahowy and brilliantcoloured varieties as M. ignea, M. Veitchiana, M. amabilis, M. Mandyana, M. coccinea, and otheri, have a splendid effect when arranged with the lighter shaden of colour in Odontoglonmms of the criapum type. The dwarfer pecies, a M. Estradæ, M. Wageneriana, M. Wendlandiana, M. Armini, M. racemona, M. candata Shattleworthii, M. hieroglyphica, M. ionocharis, and the handsome bybrids, M. Courtauldiana, \&ce., form lovely objecta when covered with their amall but pretty flowers. Theme dwarf-growing plantashould be grown with their leaves close to the roof-glann, and muat never be allowed to become very dry at the rojt. Inatead of suspending them we find that they ancceed better when placed apon a raised ataging in a light position, where the atmosphere can more easily be kept moist. Contrasting greatly in growth with these dwarf varietien, is M. macrars, which has large thick fleahy leaves, and is a veritable giant of the genus. This beantilu! specien should at all season be kept at the warmest part of the house, but if the temperature fall mach
below $50^{\circ}$ during winter this plant, and M . tovarenen, M. ephippiam. M. Trochilus, M. qargantua, $\mathbf{K}^{\prime}$ Schlimii, and M. elepbanticeps, shoald be placed as the coolest end of the intermediate division. Seldo do we see a collection of Masdevallias free from black mark and potted leaves. The primien cause of this is that the plants have had too mad moisture at the roots or in the atmosphere darim artumn and winter. Even in the ammer they bayd not be kept in a satarated condition, bat bo allom to become nearly dry each time before they aremi watered. This practice should be specially obmen during the next six months. Another cause of "mon is a low and uneven temperature during the man period, perhape at a time whers the atmosphere of the house is at saturation point. The nearar the nigh temperature daring winter is kept to $50^{\circ}$ the betim, but during exceptionally cold weather, when mach fire-heat becomes necessary, it may be allowed to drop to $45^{\circ}$. Should the external air be above $45^{\circ}$, the ventilator ought always to be freely uned, and at other times also a little air should be admitted.
tIME TO RE-POT.-Repotting is best doneat thin season, bat it may be done in February if prefere able. Previous to this operation it is important then water hould be withheld from the plant for afom days, that the roots being drier may be leni injued. It is not necessary to re-pot large healthy apecimens annually, unless there is insufficient pot room; but if the compont has become decompond this may be carefully picked out, and fresh matorias abstituted. Orergrown masses that are bad in the centre mast be divided and potted-ap afresh, or they may be carefally separated, and pat into mall por for propagating parposes. All the strong-growing Masdevallias make many ruots, and require proportionate apace for their development. The pots should be two-thirds filled with drainage, and for placing round the plants ase good fibry pat and living phagaum in equal proportion, intero mizing it with a handful of crocks. Keep the baveof the plante about level with the rim of the pots, and carefally work the compost between the rooth. Po moderately firm, but not so hard that the wetar cannot pass rapidly through the whole mata, The critical time with Masdevallias is jast after repotting it being an easy matter to over-water them, For fow weeks water very sparingly, and as each planis becomes re-eatablished, gradually increase the apply The dwarf-tufted varieties already mentioned, and the amall but botanically-interenting apeciel, 9 . gemmata, M. muscosa, and others, succeed in cow paratively mall pots or shallow pana and nil species an M. leontogloses, M. platygloma, and M wertiæfolia, which produce their quaint flowers in downward direction, require banketa. The vellow flowered M. Davisii, M. Veitchians, and M. Cudsoni $x$ frequently send up atray bloom durik autuma, which, if not required by the hybridita hould be removed, so that the plant will give man flowers in their proper seanons.

TETE HARDY FRUIT GARD
Zy W. Pope, Gardener, Highclere Castle, Nawhy. GELECTION OF PLUMB FOR PLANNIN When making a selection of Plums, int planters ahould not fail to include Rivern Favourite. As an early deswert Plam it in s grow acquisition, ripening early in Jaly, and being dave over excellent in flavour. A fow other good Plums I will mention in the order in which dllial ripen:-Early Green Gage, The Czar, Saperh Golden, Dunnison': Superb, Haling' Green Gage, Biyanston's Gage, Parple Wher Tranparent Gage, Jeffernon's, Kirken, Gion ington, Coe' Golden Drop, Late Greperacion, Monarch, Raine Claude de Brahy, Blue Imper Dith Ick worth Imperatrice, Late Rivers, Grand Dinche A selection of good cooking varieties should the following:-Early Rivers or Early Pro Prince Orleans, Giabornes, Victoria, Dismond, Prich Wales, Pond' Seedling, and Belle de Septeming STRAWBERRY PLANTATION8.- All planting should now be completed for to If this has not been done, it will be them inf plants into auraery rown, and pat tation now becoming establithed shon watered till they have a firm hold of the sfice are growing freely, then keep the checking tirred with the hoe, which, benider chece will tend to render the young plants more aealthy by the sdminsion of warmeth and air roung plat neglect to cat away runion
thoroughly cleaned, and all partially-decared leaves removed. Thi will give a neat appearance, and be beneficial to the plants, by expoing the younger leaves and crown to the hardening influence of sunlight and air.

WATERING FRUIT BORDER8.-If there be a con tinaance of the dry weather all frait borders will require a thorough oaking of weak manure-water, or sewage, as soon as the fruit is gathered, more especially ander walls and in dry warm localities. This will greatly aniat trees that may be partially exbauted by heavy cropping, and do mach towards restoring their vigour. In mome instance aloo trees perfecting their crops may be much benefited by good wateringe of liquid-manare, this being especially needfal in the care of late Peaches and Pears. Grape-vinen, too, where the roots may be on dry borders or under warm walls, should be encouraged by wateringe daring the early part of September, hould dry weather prevail.

## PLANTS UNDHR GLASB.

By W. H. Sxrtry, Gardener, West Dean Park, Chichester.
THE CON8ERVATORY. - Should this structure require painting, the work should be undertaken as soon as is possible, that the smell of the paint may have time to depart before it is necessary to keep the house closed. If, however, repainting is not needed, the house hould be overhanled and thoroughly cleansed. Remove and gradaally dry off Achimenes and Gloxinias that have flowered. Thin out the shoote of any climbers that have finined flowering, to obtain as mach light as posuible. Of course, Bignoniae, Lapagerias, Bougainvilleag, Letiandras, \&ce., mast be left until later. Wash all the atages and pots, and see that every plant is perfectly clean before being brought into the house. Azaleas should be laid on their aide and thoroughly ayringed with tobacco water or mome good insecticide in case of any thrip. Large Palms, Oranges, Musas, Camellias, Azaleas, \&c. in large pota or tabs that have been stendiag outside, may then be brought in, the coil loomened, and a top-dressing of Clay sertiliser given them. A few of the early Chryanthemam of the Madame Deagrange type, which are showing theis bads, ahould be brought in before the flowers oper; also Lilium lancifolinm, late Fuchsias, Vallotar, Colosiat, \&cc., to make the house look at bright as ponsible through the autumn.

MIGNONETTE.-Pat late plant of Mignonette into their flowering pots, and pinch out all fowers to encourage the plants to emit side hoots. Keep them constantly tied, and place them in a little lighter poaition to barden the wood. Syringe two or three times daily. Plants intended for earlier uve, and which are now fall of roots, should receive plenty of manare-water. A prinkling of soot and Clay's Fertiliser mixed together, will keep them green and healthy. These hould atill have the flowers picked off until about a month befors they are required.

CHRY8ANTHEMUMB mast be kept regularly tied, and will now need disbadding, which mate be done carefally. All sackers should be removed, and the soil pricked over, and the plants given \& topdressing of good loam, leaf-soil, and mand, with the addition of a quantity of bone-meal and cot. Springe overy few days with clear weak soot-water, which will keep the foliage a good colour and help to prevent iojary by earwige, which are very abundant this year. Plant affected with mildew hould be placed by themaelves, and be dusted with flowers-of-sulphar.

TREE OR WINTER-FLOWERING CARNATIONB. Carnationa will need to be kept regalarly tied, but stopping should now be dincontinued. It green-Ely has made it appearance, the pest should be checked at once, or the plants will be diafigured and will not flower atiafactorily. Syringe the plante at night, and dute a little tobacco powder in the pointa of the whoots, Eyringing thit off the following morniag. When tying the plants, is sharp look-out shoald be kept for diaease, as this generally appears on the old grase, and can be kept in check by cutting it clean out and burning the affected parts. The Carnationhouse thould be thoroughly cleaned, and the stages and shingle washed, and it is a good plan to give the houve a thorough syringing with parafia-and-water a week or so before the plante are brought in.

ERUTTB UNDER GLABS
By Rtchard Parikr, Gationer, Goodwoog. Chichester. POTTINQ FRUIT TREE8.- Where auch fruite so Peachea, Nectarines, and Figs are grown in pota for
the prodaction of early crope, the repotting of these plant must be done at once. The sooner this in done when growth is completed, and before the foliage falls, the better, as new root form quickly daring the present month, and the trees will be thoroaghly eatabliuhed before they are again placed in the forcing-house. It may not be necestary in some cases, when the trees are in a healthy and fruitful condition, to repot the plants, a sarface dressing of freab material beiog all that is required. In auch cases, a much of the old woil should be removed with a sharppointed atick as possible without damaging the roots, replacing this with good fresh losm, to which has been added a duating of crashed boaes, some mortar-rabble, and wood-ashes. Ram the compont quite firm with a potting-atick, and make sare the drainage is quite perfect, at the wame time dialodge any worms by watering with lime-water. Trees in an unhealthy atate boald be tarned out of their pote, and the root carefully examined, cutting away any portione that are decayed, and removing all soil that has become soar. After doing this, it may be better to repot the trees into maller pot for a season, and water carefully until new roots are formed. Good drainage and firm potting are two essential points to be observed. After potting, the plaats ahould be placed on bricks or coal-aahes, watered carefally, and ayringed overhead during bright weather. Some protection will be required daring wet weather to prevent the soil becoming asturated with water before the roots are active. Apples, Pears, Plams, and Cherries will require aimilar treatment, but as these are not forced so early as the former, these may be left until later in the month.

VINE AND PEACH BORDERB.-Much of the old soil may be removed from the borders in early hoases and the borders extended or top-dressed, as the case may require. The compost used should be in a fairly moist condition, and consiat of the ame material as recommended for trees in pots, but in a rougher atate. Avoid farm-yard manare, which is more valuable as a top-dreating during the growing meason than as an ingredient in the compost. The border should be beaten with the back of a fork to make it Taite firm. Continue to keep the foliage healthy by ayringing frequently

## THE KITOEEN GARDEN.

By Joher Lambert, Giardener, Powis Cantle, Welehpool.
celery.-The Celery crop has advanced rapidly of late, and that portion intended for use until Christmas, is quite ready for a preliminary earthingup. When it has been well cleaned and tied, apply to the soil, along each side. a sprinkling of salt to kill slags and other pesta. Siadringham Dwarf White, and white varietien generally, are nreferable for early work, bat red ouen appear to me the better able to withstand the winter. Provided atrong etardy planta are at hand, a :late batch may still be put out, and will be likely to be of use in the spring.

OMERKINB FOR PICKLING should bo gathered in dry weather as they become fit. Do not allow them to get too big, but try to obtain a large quantity ready to cut at the ame time. When the plant are exbauted, have the heaps of manure well mixed by turning, that it may be ready for garden purpowen.

CHILLIES AND CAPBICUMB required for pickling parposes, if planted out in cool frames, may have the ligbts placed over them to assist the ripening process. If they are outaide in a favourable border, they may bo carefully lifted and potted, and put in heat ander glass. Plante growing through the summer in pots will produce an abandance of fruit, without any trouble in regard to ripening.

EPINACH.-Another sowing may be made of the improved round-leal variety for winter use. Allow plenty of room between the rows, and do not sow soo thickly. Spinach in frequently rained daring its early atage, owing to the crop being inanficiently thinged. Use plenty of soot at a dressing for this crop.

FRENCH BEANS,-Make mother sowing of these is heated pits or frames. Beane like a alight bottomheat from leaver and litter, but the material must be well prepared first, so that the heat will lant until the cropa are finished. If the pits have not already been whahed with hot lime, and the woodwork newly painted or well scrubbed with soft-soap and water, this work should be firnt performed. Let the manare settle well down before adding the soil for the Bean to grow in. The compost may consist of
good loam four parte, leaf-moil one part, barnt refue and mortar-rubble one part, and epent Mashoombed manure one part, with a lirte soot and bonemeal added. Well mix thil together, und put it in the pits to warm before sowing the Beans. which may be pat in row not nearer to each other than ' feet. Choo varietie having dwarf, compact tope. If Beans are to be grown in pote inside daring the winter, preparations for them should now be made. Provide good drainaze, and leave space for a top-dres. ing. Afterward when thinning the plante, put five is an 8 -inch pot, which is a very convenient size for une. Cool frames or pits will be a saitable place for them to be placed in at present. Grow them at hardy an poanible, but as the cool night and damp weather approach, afford a little covering at night, and a little fire-heat aiso.

TOMATO8 on walls or trained to aticks ahould have all side-bhoots removed and nome of the leaves shortened back, to expose the fruite to the sun and air mach an possible. Look over the plants frequently and remove all fraits that are colouring, and place them in a light airy house to ripen.

THE FLOWER GARDEN.
By Bailey Wadds. Gardener, Birdsall Gardens. York.
PLEASURE - GROUNDS AND FLOWER BEDS.Grasa lawne should be given close attention in regard to mowing, aweeping, and rolling frequently. If a heavy lawa-mower is uued, there may be no occasion to roll, but otherwise the appearance of a lawn is very much improved by a heavy roller. For large lawn there is none better than a good-nized water-roll, the weight of which can be regulated an desired. Take out Plantain and other weed from the grase, either by digging with a knife, or a boy may tale a bottle of sulpharic acid and a thin iron prod, which should be dipped into the acid and then thrast into the centre of the weed. The operation require care, however, that pot of the acid are not dropped about. The iron ahould only be wet; it does not want a drop of liquid on the end of it. Flower-bed are now looking well, and every endeavour should bs made to maintain this department as attractive as possible by weeding bede and borders, trimming edginga and by the removal of decayed fower-atems and leaves, When cutting are taken from Pelargonium-beds, it should be carefully done, wo that the bedn are not left untidy. Small bede of Pelargoniams ought to be cat little or aone, and if a quantity of plant are pat out in a reserve garden to furnish cattings, wo much the better. Rhododendrons. Azaleas, Kalmias, and other American plant which have suffered from the drought, will be greatly helped by thorough soakinge of water. Old flower trasses should be taken off, and everything done to help them to complete their growth. Gravel walke and road require frequent hand-weeding, for the use of the hoe and rake on gravel should be avoided at mach as possible. Notice should be taken, while the leaves are still on the trees, of deciduons tree or shrabs thet require thinning. The arrangement of trees and shrub around a mansion or villa reaidence requires mach tante and forethought ; overcrowding inould at all times be avoided, and deciduon trees and ahrabs are better planted at a little dintapce, thu preference being given to bright-foliaged evergreen thrabe and coniferon plants, which will give warmth and colour daring the winter month.

FORMATION OF NEW PLEASURE-GROUND8. The formation of new pleasare-groands, or contemplated additions to old ones, should be arranged for now, staking out the approach roads, paths, and thrabbery aiten as soon an posible, that the work arabbe taken in hand during the antumn. The may be taken in hand during the antumn, The and their courmas through parke and woadlande the work. The width of carriage - drives should be suffisient to allow carriagen to pass each other and turn without diffenlty. Ragerdiog their formation, tho bottom should be well drained, and the depth of road matarial not fower than 12 inches The bottom may be made of chalk, free-atone, or ballast, with 6 inches of granite above it, and about 3 inches of fine gravel at the top. The arface mut be made so that water will get quickly away. Footpathe do not require to be made oo deep, but the anme material hould be uned, and good draiagge given. The cleaniag out of ornamental watercoursen and pond mast be completed before the fine weather is over

## EDITORIAL NOTICES.

Advertisements should be sent to the PUBLISHER.
Letters for Publication. - All communications intended for mublication, as well as specimens and plants for naming, should be addressed to the Editor, 41, Wellington Street, Covent Garden, London. Communications should be WRITTER ON ONE SIDE ONLT OF THE PAPER, ent as early in the week as possible, and duly signed by the wriler. If desired, the signature will not be printed, but lept as a guarantes of good faith. The Editor does not undertale to pay for any contributions, or to return unused commumications or illustrations, unless by special arrangement.

APPOINTMENTS FOR THE ENSUING WEEK.
MEETING.

Great Annual Unreserved Sale of Winter-blooming Heaths and othes plants at the Burnt $A$ sh Road Nurseries, Lee, Kent. by order of Messrs. B. Maller \& Sons, by Protheroe \& Morris. Dutch Bulbs at Protheroe \& Morris Rooms. Rooms.

Great Annual Unreserved Sale of Winter-flowering and other Wlants at the Nurseriea, South Fraser, by Protheroe \& Mrorris. Dutch Bulbs at Pratheroe \& Morris Brooms.
Great Annual Unreserved Sale of Heaths, Stove and Greenhouse Plants, at the Brimodown Nur-
series, Enfield Highway, of Mr. John Maller, by Protheroe \& Morris.
Dutch Bulbs at Protheroe \& Morris Rooms.
Great Annual Unreserved Sal of winter-blooming Heaths Aale of Longlands Nureeries, Sidcup, by order of $M$ Nuseries, sidcup, by
FRIDAY.
SEPT. 13 by Protherce \& Moria
Dutct Bulbs at Protheroe \& Morris' Roome.
Orchids at Protheros \& Morris' Rooms.
SATURDAY, STPT. $14\left\{\begin{array}{c}\text { Dutch Buibs at Protheroe \& Morris' } \\ \text { Roomg }\end{array}\right.$

CORRECTED AVERAGE TEMPERATURR FOR THE ENSUING WEEK, DEDUCRD FROM THE OBSERVATIONS OF FORTY-THREE YEARS, AT ORISWICK, $08^{\circ} .4$

Apple trees trained on a roof, and other fruits.

A correspondent, writing from Scotland reoently, remarks on some Apple trees which he had seen trained over the roof of a coltage in that country, and on the rarity of such an ocourrence in these islands. It is perhaps one proof the more of the manner in which we negleot our opportonities, and let in the outsider, with his well-ripened, high-osloured, nicelooking fruits. There are only two reasons why our country cousins should not atilise the walls of briok, wood, \&o., of their barns, stables, and dwellings, in growing, not only the tenderer varieties of Apples and Pears, but Grapes, Figs, Peachen, Apricots, the finer dessert Plums, the Lawton, and other American Blaokberries, and those reasons are the lack of secure tenancy in the case of those who rent houses and land, and the want of compensation for improvements. It may be alleged that the average farmer, and cottagers and villagers generally, lack the requisite knowledge ; but that will, we hope, soon be altered by the peripatetic lecturers of the various County Councils. And we ought soon to harious a County
young folk in all parts of the country, who having attended these horticultaral courses, will be quite competent to afford advice on the management of fruit trees to those who need it, and also perform the neeessary operations wherever it may be desired. Indeed, there seem to be openings in this line which would, in a short time, give employment to many a man and woman too, who now hardly knows, in the crowded state of nearly all industries, what to turn his or her hand to, to earn the wherewithal to exist in comfort. We have the jobbing gardener, bat he is too often a "puir silly body," with a very small amount of the necessary knowledge. In the matter of fruit trees and bushes he is either a ruthless praner, pruning without knowledge, or he sniggles here and there, and makes thickets of them. Roughly speaking, all the kinds of fruits we have named, can be readily grown in soil that is well-drained, and fairly fertile by Nature or art, in the country south of a line drawn from King's Lynn to Chester, the Grapes, Figs, and Peaches, having south or east walls; and Pears and Apples, and perhaps, Figs and Apricots north of that line, with protection during the winter for the Figs, and in the spring for the last-named when in blossom.

Mr. Barrox's
Wr have received the following Retirement. commanication from the Council of the Royal Horticultural Society relating to the circumstances connected with the retirement of Mr. Barron from the management of the gardens at Chiswick:-
"Royal Horticultural Society.
"117, Victoria Street, S. W., Sept. 2, 1895.
"The Council of the Royal Horticultual Society have read with aurprise and regret the remarks which have lately appeared in some of the horticultural newspapers with regard to Mr. Barron's retirement. The Council have for aome time had before them the deairability of making considerable changes in the gardens at Chiswick, and in the early part of this year they determined to initiate these changes in the near future.
"Fally aware of the value of Mr. Barron"s aervicen for upwards of thirty years, recogniaing that he had well earned and thoroughly dewerved a retiring pension, and anxiou to show him every conaideration, the Council felt that at hia age they could not fairly place upon him the burden of ach a re-organiation as they contemplated; and they considered that they were consulting his best interents an well as thone of the Gardens in offering him retirement on an allowance of £180 a-year.
"In replying to the conncil's communications, Mr. Babron thanked them for their generous recognition of his claims, accepted their proposal, and tendered his renignation from Jan. 1, 1896. The Council are glad to know and to be able to asaure the Fellown of the Society that he is perfectly aatiafied.
"Having acted juetly and generouly towarde Mr. Bamboss, at they believe and to his aatiafaction, the Council deemed the matter aettled, and were themselves intending to promote a tentimonial to him on his retirement, when they found that ateps in that direction had already been taken.

The Council regret to find that they are charged with diacoarteny toward the Chiswick Board. The charge reate on their appointment of a special committee to advine them an to the future of the Garden without communication with the board. They freely admit that it would have been adviaable to have conferred with the board on the appointment of this committee. To any membern of the board who may have felt themselve slighted at their omisuion to do so, they offer a frank expremion of regret. They need acarcely say that the omisaion was due to an overnight, and not to any intentional discourteny.
"By order of the Council,
"W. Wilks, Secretary."

The Testimonial to Mr. Barron,-We have received the following from Sir Tarvor Lur Bence, Bart. :-"While I cannot but think it anfor. tunate that the proposal to present a teatimonial to Mr. Barron on his retirement from the mervica of the Royal Horticaltaral Society should be mixed ep with an attack on the Council, I ahould be sorty were this to prevent anyone from aubscribing to s well-deserved recognition of the work of an old ald valued servant of the Society. I have pleawnois enclosing my own subscription, and tratit that will unite in promoting an object which canwoll to secure complete and general aympathy.-Tmon Lawbence.

We have been requested to state that it consequence of several members of the Frait $\mathrm{C}_{\mathrm{m}}$. mittee having expressed a desire to be amociatod by their contribations with the general testimonial that has been insugurated, the proposal to preent a special one from the Fruit Committee to Mr, Barron as Secretary will not now be proceeded with, as it could only have merit if shared in unanimouals, It is, however, the earneat wish of the promotera, thit on his retirement from office the Council mould raill seek to preaerve Mr. Babron's unique knowledge to the committee by offering him the position of a lith membership of that body, with which he has been in long and so honourably connected.

Royal Horticultural Society.-The peat meeting of the Royal Horticultural Society will be at Chiswick Gardens on Tueaday, Sept. 10. Prita are offered in forty different classes for vegetablen, and a good show is anticipated. In addition to the vegetables, however, the unual collections of hity plante, Orchida, cut flowers, fruit, \&c.n will bo received at Chiswick, and any new or rare apecimas will be examined by the various committeet, whild meet there at twelve o'clock noon. At half-patt one there will be a vegetarian lancheon arranged by $A$ Hills, Esq., President of the Vegetarian Fedend Union; and at three o'clock a lecture on "Gardes Manuren," by Mr. W. G. Watson, will be rend. Kg. hibite may be removed at aix oclock.

Sydney Botanic Garden (ree Sapplementer) Illustration). -We are indebted to the veteran curater of the Sydney Botanic Garden for the accompanyist illustration of a group of Palms, with a man of the blue Nymphæa atellata in the lake in the foreground The Water-Lily had forty-one flowern open at the asme time within a epace of 4 feet in diameth Nymphas tellata is a tropical apecies, bat 14 Latour Mabliac has enriched our gardens with whole meries of lovely varietien quite hardy in thin country.

The "Journal of the Royal honticulTURAL SOCIETY."-The last number of the Jownims completes the nineteenth volume, and is a worthy succeasor to those that have preceded it. it contian mont of the papere read at the Drill Hall meting il the apring, inclading Mr. Bazer's reviaion of meall work in the genus Primala, and Dr. Mosris' excullan account of the plant and gardens of the Camer Islands, a aubstantial addition to our knowledg The Journal reflects credit on the Society, securea for the country Fellown a retarn for theil aubscription that they would not otherwise obtain.

Devonbhire Technical inatauction col MITTEE,-Mr. Chas. Berry, horticultural lecturet the East Saffolk Connty Council Technical Inutrat tion Committee, has been appointed instructer of horticultare by the Davonshire Counts Council, at will enter upon his daties at the end of tha month

National Chrybanthemum society. meeting of the general committee took place the the 26th ulto, Mr. B. WyNNE in the chair. y . Secretary, having announced the death of the did Aeteur Worthey, who in the early days of Stoke Newington Chryanathemam Society the office of Secretary, the following rentur unanimounly parned:-" That this commiwe pid on record an expreation of the morrow with antill hat heard of the recent death of Mr , surn


Palms and Lake with Blue Water-Lily, Sydney Botanic Garden.

Wortley, formerly Secretary of the Stoke Newington Chryanthemum Seciety, to which office he was elected in 1851, and bears in grateful remembrance his services to the Society, and to the Chrysanthemum in that capacity, and also as an old cultivator and exhibitor of the 'golden flower.'" It was farther resolved that a copy of this renolution be sent to the relatives of Mr. Abthur Wortley. Mr. Geo. Walker, Paddington, and Mr. W. A. Holmes, mon of the late Secretary to the Society, ware elfected to vacancies on the general committee ; and Mr. J. McHattis, The Gardens, Strathfieldaaye, to a vacancy on the Floral Committee. A achedule revision rab-committee was appointed to revise the chedules of prizes for September, October, and December. The Jabilee celebration aub-committee, appointed to prepare a scheme for the proper celebration of the Jubilee of the Society in 1896, made a report, and the same was accepted, a committee being appointed to carry out the same. Twentythree ordinary members and two Fellows were elected.

The Effects of Lightning.-Daring one of the recent severe thunderatorms, three Scotch Fir on the outskirts of the wood, about 50 yards from my cottage, were atruck by lightning. As I have never before heard of several trees being thas atrack at once, I send a few particulars, which may be of interest to your readers. The trees, measured from centre to centre, form an obtuse-angled triangle, Whose aides are 17 feet 6 inches, 12 feet, and 10 feet rempectively. The largest of the tree is 50 inches in girth at 3 feet from the groand, and the smallest 28 incher. The trees vary very considerably (more than 10 feet) in height, and they are arrounded by other Fir trees, many of which are more lofty than these. The injared trees are marked in the usual way by vertical lines, from which both the outer and the inner bark has been atripped. There are no aigns that the lightning has passed from tree to tree, and I preame that one discharge has become separated over this considerable area. It would be interenting to learn whether aimilar instances of the effect of lightning have been recorded in this country. Gilbert R. Redgrave, Absoc. Inat. C.E., Grove Dale, Abinger, August 26. The Times.

The World's Wheat Crops.-The Hangarian Minister of Agriculture at Buds-Pesth, on Friday evening published the aggregate result of, the data obtained from the reports of the various consals, agricultural apecialiats, and other correpondents, concerning the world's Wheat crop for the seazon 1895. The total production of Wheat in the import countries (that is, the countries which have to applement their home productions of cereal. by imports from abroad) is estimated at $264,160,000$ hectolitres, or $749,422,000$ bushelr, and the production in the export countries in estimated at a total of $582,200,000$ hectolitres, or $1,651,701.000$ bushels, making the total Wheat crop of the world this year 846360000 hectolitres, or 2401123,000 buabel. The Minister has also amended the eatimate pablished at the end of August last year of the 1894 crops, by increasing his then estimate of the total gield of 872,780000 hectolitres, or 2476000000 bushels, by $55,000,000$ hectolitres to $928 \mathrm{C00}, 000$ bectolitres, or $2,632,736, \mathrm{C} 00$ bahele thu making this year's world's crop of Wheat 82,000000 bectolitres, or $232,000,000$ bushele, maller than that of laat jear. Agricultural Gazette, August 26.

The Nelumbium in Eaypt.-Readers who recall the interesting notes on this anbject published in these columns in the apring from the pens of Dr. Bovavia and Mr. Flinders Petrie, will be interented in the following extract from Garden and Forest of Aug. 21 : -"The purpose of this note is simply to call attention to the fact that in the Abbot Collection of Egyptian Antiquities, now the property of the New York Historical Society, and on exhibition in the room of the Society in the City of New York, there are pecimens of the leaven of Nelumbinun specionam, obtained from Egyptiam tombs, wonder-
fully well preserved after the lapse of twenty or thirty centaries.

Introduction of the Bermuda Lily.The Bermada Lily wat first brought to America from the Island of Barmada in 1876, by Mrs. Tromas P. Sargent, Assiatant Parchaing Agent of the Pennsylvania Railrozd. When she was leaving the ialand, in the apring of that year, two friend residing there gave her a few of the Lily bulb. Upon her arrival at her home she preasted nome of them to Mr. Robert Crawford, a near-by florist, who about a year later mold tha increase to Mr. William Habris, of Philadelphia. He began growing the bulbs, and offered them to the public, with the addition of his name, as Lilium Harrisii. Mra. Sargent was an invalid for many years. Her hcme in the subarbs of Philadelphia was a centre for all that is lovely in plant growth, and her life was as beatiful and beneficent as the choice flowers with"which she surrounded herself. Vick's Magazine. [We want to know now how the Japanene Lily came to be cultivated in Bermuda ?]

Bicolor Plum.-Through Mr. Ladhams, of Shirley, near Southampton, we have received parple and yellow Plums taken from the ame tree. It appears that the occurrence has happened two years in sacceasion. The case is aimilar to the occurrence of black and white Grapes on the asme Vine, and of Peaches and Nectarines on the ame shoot, and is probably due to a separation of previously mixed characteriatics, but what causen the audden change is quite anknown.

The Cedar of Goa.-The laat part of the Boletim da Sociedade Broteriana containe a Portuguene tranalation of Dr. Mastres' paper on the Cedar of Goa by Profensor Henriques. The Professor adds a note that the structure of the slab of wood found beneath the arface of the soil in the Azores island is identical with that of Janiperas brevifolia; and microscopical epacimens which he has been kind enough to sabmit to us amply bear out his opinions. Janiperas brevifolia in the island of S . Jorge attains a height of over 3 mèses, and the trunk a circumference of 1 m .30 c .

Publications Received.-The Amateur Orchid Cultivators' Guide Book, 2ad edit., by H. A. Borberry. Published by Brake \& Mackenzin, Liver-pool.-Analytical Key to the Natural Orders of Flowering Plants, by Franz Thonner. Pablished by Mearr. Swan, Sonnenschein \& Co., London.

## Home Correspondence.

APOQAMIC FERNS.-It is with urprise that I learn from Mr. Drüery's paper on apogamic Ferns (Gardeners' Chronicle, August 24), that Nephrodium (Lastrea) paleacenm var, cristatum (Crented Male Fern), is according to De Bary, dentitute of archegonia, and therefore that varieties cannot be raised from ite apores. The original plant was found at Charleston, in Cornwall, and as far back as 1857 the late Mr. Jamen, of Vauvert, gave me fertile pinna, and from these ome handreds of olants were raised. I gave a pinns to Mr. Clift, of Balaall Heath, and from thea there mast have been nearly a thousand needlinge. Between 1862 and 1868 a lirge number of seedlings were raised at Hightield Hoane, and amongat them were varieties Belferi and Winatanlyi, the latter deacribed in Our Native Ferns, in 1869. Other croses were made subsequently, notably with variegatum (a normal but variegated variety of N. Filix mas) ; in this batch of several handred plants every seedling was created, and had more or less the characters of cristatum. Mr. Wollaston of Chiselharat. Mr. Sim of Foot's Cray, Mr. Clapham and Mr. Glase of Scarborough, Mr. Willson of Whitby, Mr. Fox of Briatol, and Dr. Lyell of Newbary, all rained plants of this Fern. Mr. Sim raised one known as criatatum-anguatatum, and Mr. Lyell neveral distinct congested forms; although apogamic, neverthelesa archegonia mast have been present, or no varieties could have resulted. In 1890 I had a pan of Scolopendriam prothalli in which the whole of them merely developed into thorns, eventually forming a bunch of thorne, and afterwards producing several curiou fronde, but they reverted to thorns,
and are now all dead. Qaite recently botaniats told us that it was imponible to cron Ferne, and also that onlv one plant eprong up from each prothallua. From 1867, year after year, this was pointed cut to be incorrect, but it was nearly twenty years before Fern crosing wasacknowledged; and, as regarde plante from a single prothallas, two, three, four, and five have resulted, and further by dividing and abb-dividing a prothallus nearly 100 plants can be produced, and moreover, thene divisions can be continued until some of them have none of the original prothallas ; after this, new generative organs are formed, and much more prolific in offspring. E. J. Lowe, F.R S. P.S.Additional information on the varieties of Nephrodium paleaceumean be found on p. 90 of Fern Growing, and p. 138 of British Forns and where found. E. J. L.

CYPRIPEDIUM $\times$ LORD DERBY. - Referring to the paragraph in Gardeners' Chronicle. p. 245, on Cypripedium $\times$ Lord Derby, in which Mr. Statter ie said to have written that the plant "W. R. Lee" being dead, there was not another plant of the same parentage that had bloomed which was alive. I beg to say that I have such a plant, it parentage being C. auperbiens $\times$ C. Elliotianam. The plant bloomed and was shown at the same Royal Horticultural Society" meeting at which "W. R. Lee" received an Award of Merit. I showed my plant under the name of "C. Mabellianum." I obtained it from Mears. Sander as a seedling, it is still alive and doing well, although I do not think it will flower again this year. Walter C. Clark, Orleans House, Sefton Park, Liverpool.

WASPB.-Thene peat have only jut made their appearance in force in my garden in the Fen district of Lincolnshire. Last year shey took the whole of my early Pear fally six weeka before the present date. It often happens that they make their nest in a thatched roof or atack, in which case fire is out of the queation; under these circumstances, and indeed in most others, my plan is an follows:-Take a widemouthed bottle, with a closely-fitting cork, through which pass a short piece of glass tube; to the top end of this tabe an india-rubber tabe aboat 2 feet in length is attached. Sulphide of iron is placed in the bottle, and jast covered with water, the end of the india-rubber tube is inserted into the hole, which lead to the neat, and packed round with damp clay or earth to prevent the eacape of gas, strong hydrochloric acid in then poured
into the bottle, and the cork at once ineerted. Sulpharetted hydrogen is generated, and not a wasp will be left alive in ten minutes. Salphuretted hydrogen is the gas which gives the smell to a rotten egg, and in it concentrated form, an that applied, is a deadly poison to all organic life. I took four nesta last year by this meana in a little more than half an hour, and one was in a thatched roof covered with Ivy. Of course, the operation should be conducted at night, when the waps are all at home, R.K.
chiawick veaetable show.-Kindly permit me to augeat to all who may be engaged in the work of judging the vegetablen at Cniswick on Tuenday next, that ome effort be made, not merely to have all the judgments in harmony, but also that standards of excellence be also, so far as the respective exhibits will allow, be uet up. The proposed code of judging, which includes inatruction ar to the atandards of excellence in vegetables, is onfortanately not jet ready. Were it available, mach help towards securing the deaired result might have been furnished. Failing that, and knowing how severely judgment by the Royal Horticultural Society are criticised and utilised an atandards elsewhere, the present opportunity to exhibit higher and conaistent ideala in relation to ins, form, quality, \&cc., is so important that it can hardly be too fully utilised. In no deacription of produce at exhibitions does there seem to be found in making awards more diveraity than in connection with regetables. At Chiswick, apart from thewe collections, there are ample scope for the selection of the bent forme and higheat quality. The opportunity is so good a one that it cannot be more worthily utilised. A. D.

TOMATOB AT MR. W. LAWRENBON'S NUREERY, EAGLEACLIFFE FARM.-I had the pleanure to look over these nurseries recently, and some of the Tomaton which I asw growing there were to my mind perfect. Mr. Lawrenson, who believes in doing thing well, hat now obtained, through years of careful selection, three distinct varieties of Tomatos, which are grown under exactly similar treatment as some other crack varieties, and which have outdiatanced the latter by far. All are very
free settera, bearing large clasters of even, goodsized, handoome deep Aeshy , carlet frait, the lowets bunches lying almost on the rima of the potr. The clautere are borne on aturdy short jointed single rods 7 to 8 inches apart-the height of the rode is about 8 feet. Mr. Lawrenson informs me that the yield per plant, when all are ripened off, is 12 to 14 lb . Thit io a good performance for spring-town plants, grown in 9 -inch pote, and merely aet on a thick sod 15 inches rquare. course, the planto are well sapplied with manarial sids to growtb. I have never, duriag many years of experience in Tomato caltare, neen anytbing equal theae Tomatos at Eaglescliffe, and I am glad to hear that Mr. Lawrenson intends to send seed of them out next spring. Tomato growers who have now to competo with foreign cultivators of Tomatos
sending over very large ganatities varieties which can be thoroughly depended apon for ture eropping, as a good many of my friends Fill have found out by now that Tomato growing is not all profit. Experientia docet.

THE LARGE CEDAR TREE AT BEECHWOOD PARK, HERTFORDSHIPE. - Seeing the account of large Cedars in your issue of Aaguat 3, I am reminded of a fine specimen which now stands in Beechwood Park, Herte, the seat of Sir Egbert Sebright, Bart. The height of it is close upon 100 feet, and the circumference of the stem, 5 feet from the ground, is 29 feet. I feel are Mr. Freeman, the gardener there, would be plassed to corroborate my atatement. G. Shepherd, The Lilies, Aylesbury.

## "THE SWEET LITTLE, DEAR LITTLE, BHAMROCK

 Of Ireland."-Referring to Mr. Tuckwell's note on the above in your issue of August 10, I must, as an Irithmad, express the opinion that he is mistaken in his idea that "Shamrock is a name common to all triphyllate plants found growing on March 17." Anybody who han een the caretal searching in the fielde a few daps prior to March 17, will have noticed that in gathering apecimens of the national badge, the Irichman does not alway pick up the first trifoliolate plant he meets, but that with the greateat care he proceed. to telect what he regardis as the true species, which, he will tell you, is known by its small, perfectly green leaves, and wiry much-branched atems, characteristic which are certainly more marked in Trifoliam minus than in any other specier. Living, as I have alway done, in the south of Ireland, I have many timen watched my neighbours Shamrock-gathering. I have had Shamrocks brought to me by people who professed to know the real plant, and have often examined the sprays sold in the streets and sbops for sending to friends abroad as well as those worn on St. Patrick' Day, and as a resalt, am convinced that for Irishmen, in the south at any rate, there is but one true Shamrock, snd that is, without doubt, Trifolium minus. T. repens and Medicago, I believe, are used only in mistake by those who are not observant enough to notice that there are more kind of Trefoil than one, and I have seen auch an individual wearing T. repene, with "Clover." his ignorance in decorating himself with "Clover.' That T. minus is regarded throughout Ireland as the Shamrock by those whose interest it is to know it, is, I think, fairly demonatrated bythe fact that flowering specimers of it are offered for ale during the summer months to tourist by the sale during the summer months to tourists by the guides and peasants at Killarney; and alvo by the facturery of Cariatman and Sc. Patrick' Day card on which mprajs of natural shamrock are mounted, While Irithmen are patriotic enongh to this apecies. wear the Shamrock Mr. Tuck enough to aeek for and they will ahare his belief that any other plant will do at well as the pretty little one known botanically as Trifoliam minas. While on the abject of national emblems, perhaps. Mr. Tuctwell or some other correspondent woald kindly inform a which of the of the twenty in the typical Scotch plant, or which British wild Rone enumerated in the three varieties of of British Plants ( 9 ih ed.), we are to regard as the foral emblem of old England. R.A. Phillips, Cork.

FOOD FEQUIREMENT OF THE CHRYSANTHE-MUM.-I have read Mr. M. R. Aaderten' remarks your recent isac. Four corresponded on p. 181 in of his experiment with Correspondent, in telling un some lack of knowledge of the subjums, pxhibite us:- I have got a complete analyuict. He telle which he calla light and poor, and yet, further on
he ways :- "My soil is rather rich in potash," and this, together with the remark that it is a fibry turf, naturally leads one to suppose the soil is not so poor after all. Be this as it may, I for one should like to have seen its analyais. Another point I noticed in connection with the soil was the quantity of rabbish he mixed with it (two parts out of five);
surely this abstance would not improve it very macb, for although this is a good thing to put on land or mix with border soil, it cannot be recommended for pot plante, especially such vigorous growers as Chryanthemums. But to return to the quastion which concerna us most, i. $\theta_{0}$, the use of artificial manares. I noticed your correspondent ased an entirely different manare to that recommended either by Mr. Willis or myself-with what
result? He say:-"The plants made but little progress, the leave were small and of a yellowithgreen colour." And why? Because they were lacking one of their mont easential food constituents, viz, nitrogen. "If the plants have not a nufficient apply of nitrogen in the soil, it can be detected by a lack of vigoar in their growth; the plants look hard and stuntad, the leaves are of a pale yellowish colour, and the growing point is weak" (p. 6 of
Manures and their Application, by W. Dyke). Bat Manures and their Application, by W. Dgke). Bat
then jour correspondent will perhaps aay, did I not give them 4 per cent. of nitrogen in the mixtare i used? Yos who, with the most elementary knowledge of manares, would mix two substances like banic slag and sulphate of ammonia together? The caustic lime contained in the slag (about 50 per cent.) woald at once combine with the sulphuric acid which is united with-and holds-the ammonia, liberating the latter as a gas, which would then escape into the atmosphere and be lost. Mr. Andersen saya he "has a good apply of nitrogen in the atable-manure." He
evidently does not know that 1 ton of farmyardevidently doea not know that 1 ton of farmyard-
manare only containg 12 lb , of nitrogen, and thim chiefly an organic nitrogen. The nitrogen in the atable-manare and fibres of the turf could only become very slowly available for the use of the plant, and in my experiments with Chrysanthemums I have found there is nothing which stimalates their growth like nitrate of soda and potash. A nitrate $I$ have recently uwed for experiment changed the colour of the foliage from a pale yellowish-green colour to a very dary olive-green in three days. The nitrate in question is ammoniam-nitrate, which containe twice as mach nitrogen as nitrate of soda. Care must be taken when asing this substance, or the plant may be injared. If plants be overfed with artificial manares, they would not have the appearance as described by Mr. Andersen, as their foliage would look very dark green; this can soon be remedied by keeping the woil rather dry for a time. Your correspondent thought his mixture was in accordance with the requirement of the Chrysanthemum. Bat why, when giving as the analyeis, did he omit to say that the mixtare also contained 29 per cent. of sulphuric acid and 19 per cent. of chlorine? The plant only If quire $4 \frac{1}{2}$ per cent. of the former and 3 per cent. of the latter ingredients. The chlorine would mont probably unite with lime, forming chloride of lime, a abatance very ivjurious to vegetation. Your correspondent ask*, "What renult such a quantity of artificial manure as I recommended would have?" Why did he not try its effect as recommended, and report the results? and not try something entirely different, and then asy "theory haa here without any caution being uned, given very dangeroue advice." It would have been so had he proved the quantity was too strong for the planta, but from experimente I bave carried out with Chrysanthemama I can may that the quantity can be used With safety, although it might be advieable to use lesser quantities with very fertile soill. In conclusion, I think, the past thirteen yeara of practical experience hai targht me not to recommend anything I have very few plants which found beneficial. There are very few plants which will atand with advantage so much feeding as Chrysanthemums, providing the mechanical condition of ail be well looked after.

VEITCH'S CLIMBING FRENCH AND \&UTTON'S TENDER-AND-TRUE BEANB. - It reems a great pity that the Ernit Committee of the Ropal Horticultural Society should have raived the question as to whether
Messra. Robert Veitch \& Mesars. Robert Veitch \& Son or Mesars. Sutton \& Sons have the prior claim to the name of thin Bean, and then left it to other to decide. However, there need be no difficulty in the matter, for the official receipt of the Royal Horticultural Society granted to Mr. Ward in 1885 eatablishev, beyond quee-
tion, precedence in favour of his Bean-nom in the hands of Mears. Veitch. At Memur, wick Report until 1891, there is a Prionit in favour of the Exeter Bean of six years. It caty not matter one jot to the committee, as a whole, to whom shall be awarded the right of naming by virtoe of priority, but it does matter in the interents of transactions. As there is to be a large gathering of vegetable growers at Chiswick on September of perhape that would be a suitable occation on whind to set at rest the question at issue, for then, $m$. bably, there may be a fuller meeting of the wh. mittee. $H$. $E$.

PRIVATE GARDENS AND GARDENERB vom CHIsWICK. - With the temperate remarks of joor leader, p. 244, on Mr. Barron's retirement, no one can find fault, for if a wrong has been done, it thould be righted; but a much cannot be said of the closing paragraphe of the leader on p. 234, where comparisons are instituted between Chiswick and private gaidens that cannot tend to promote that sympathy from the craft that the writer claimu for the cause he pleads; while his ignorance of the duties of gardeners in private places shown that he, at least, is no jadge. I gather from his remarh that the only things about which gardeners in private places are able to form an intelligent opinion about are " auch elementary matters as digging, mowing. tree-nailing, and pruning, and the like matters; while the things they know nothing about, but which it appears handicaps Chiswick, are the loss of time attending meetings, the labour of noting trials, gathering and packing fruits, flowern, und plants, conducting visitore ruand, \&c., for all of which the superintendent has "nothing to shom." This will amase gardeners in places of any pretensions, where a large establishment is never off their shoulders from January to December, who have to grow and pack fruits, flowers, and vegetablen almont daily with ecrapalous care (having cooke and confectioners as well as employers to study inatead of only "Fellows"), and send to London and to ahooting. lodgen or wherever their employer happen to go-who at home have daily to set aside men to serve the houe with the same, not to mention the laborious ice supply by half-tona at a time, nor the large portion of esch day the men are taken off to fill vanes and dining-rooms with cat flowers and plants, watering them, \&c., before a stroke can be done in the garden proper in work involving forenight, akill, taste, and judgment. In addition to these, throw in school, and a charch or two, an agent's garden and vinery, half-a-dozen lodge gardens, and everal gardent of employer's friends, absorbing annually some thousands of plants, involving lista and correspondence on almont every horticultaral topic, and you have some idea, and no exaggerated one, of work in private gardens for which there is nothing to nhow. We expect, a a matter of course, rivitors by the handred, and often at a time rendervouiag in the grounds, bazarar for charitable objects mono polising the staff's time, cricket grounds, tennil courte, and the fire-brigade drilled half a day evory two weekt, which are nothing. No! the ples on thin head for any society' garden had better be absindoned, because it is trash, and it is a pertinent question, if the plea even bad any force, why gardeners from private places bave uxally been appointod Mc Chiswick, and why men like Thompm Mothing, and other succeeded so well perforim nothing about the work most gardener" perimen they carry on withont fee or reward, the facts they are continually recording in the Gard. Chrom, and elsowhere, and their record in the snnain of horticalture generally, where comparisons wond be dangerous. Some of your correspo widol are inconsistent. 1 any nothing about the circtimof employing private gardeners under present cand that Chiswick is chiefly devoted to growing fruit, market, and to testing vegetablep, fruith, and for private gardens, the choice in such a case certainly be limited to gardeners or market deners, or both. You are right in sta
your note appended to my letter last that I note appended to my letter perhaps, not sware how the has been spent at Chiswick, but I know how a pound will go in a garden, and renvation repairs mentioned-a very liberal annual allom -and which would leave about management, fnel, and andrier, \&c, -an allonil

Which I hava never lnown to be granted in the best gardene, ezcept, periaps, where the hot-houses and early forcing weremach greater than usual, and the fael bill high; and'ez_riry'dill, I feel are, prove as
which at present centres in this part of the Arctic regions, the realta, especially as to the movement of the ice, are of mach importance. Erom the account which has been forwardea to the lioyal


Fhow the boval oandina, IEW.
much. Experimentsl work is neither more expensive nor more haraning than private gardening, to tay. the leaxt. Head.

## NOVAYA ZEMLYA.

An expeditioc, cieanived by Mr. H. J. Peareon, left England ia the end of May with the intention of visiting Novaya Zomlya In view of the interent

Geographical Society, we learn that the member of the party were Mr. H. J. Pearson, Mr. C. E. Pearson, the Rev. H. H. Slater, and Colonel Feilder. Leaving Vardö in the steam yacht Saxon on Jane 14, a conrme was laid for Namelen Bay, in the uorth-wens of Novaya Zerolya. The ice conditiona in Barentu Sea were found to be extremely unfavournble. Impenetrable pack wan met with about 80 mile from the
weat coast of Novaya Zemlya, trending towards the north-went, and several day were apent in cruising along the edge of the heavy ice to the southeast. Every likely bight in the pack was entered, and in tom casen these indentations were followed for 20 to 30 milen, but invariably heavy polar ice barred the way, and the yacht had to seturn to open water. Cual ranning short, the vesel bore up for Vardö to refill. The member of the expedition were landed on the Marman coast of Rassian Lapland, near Sviatoi Nos, where they went into camp. A week was epent there proftably in ornithological, botanical, and geological investigations. Oa the return of the yacht from Vardü, a second attempt was made to reach Novaya Zemlya. The pack was again met with in about the mome meridian aa before, but, a fortunate lead whowing, the vessel ran some 40 milen through the pack, and found a apace of open water about the centre of Goose Land. Lafortunately, a dense, impenetrablo pack of 8 to 10 milen in width was jammed against the shore, and this formed a connection with the main pack off North and South Goone Capea ; in fact, the vensel lay in a large water-hole. An attempt was made to press the yacht towards North Goose Cape, in the hope of open water being found in the direction of Möller Bay, which resulted in the little vessel being nearly beet in the pack; but eventaally the large pool of open water off Goose Land was regained. The wind now shifted to the mouth-east, and the lead by which the yacht had entered closed entirely. The pack came ap from the direction of Mezhdusharnky Island, and hoar by hour the water-pool contracted. Again coal had begon to run thort, when, fortunately, a gocd lead opened to the south-west; a run was made for it, and, after passing through forty miles of dense pack on either side, open water was reached, the yacht ranning down to the island of Kolguev, with the ice in sight all the way on her port side. A landing was effected on Kolguev on July 5, and the members of the expedition went into camp near the mouth of the Kriva river, on the mouth-west side of Kolguev. The Saron retarned from Vardö and took the party off on July 16. Good renulte were obtained in Kolguev in various branches of natural hintory, and a aeries of intereatiog photographe were taken. During the atay of the party in Kolguev the weather was very bad, the tempersture seldom rising above $35^{\circ}$ Fahro, with fogs and bitter cold wind from north and north-west; part of the time the pack came down and girdled the weat side of the inland. Kolguev was left on July 16, and a third attempt was made to reach Novaya Zemlya. A marvellous change bad occurred in the conditions of the ice. The impenetrable pack which a fortnight previounly atretched from Kolguer to Novaya Zemlya had altogether dinappeared, and the Saxon reached Koatin Shar on the evening of July 17, without encountering a piece of ice worth mentioning. Stoppagen of some day were made at several anchorages in Koutin Shar, notably in Nekhvatova Bay, the final anchorage being at the head of Bielunha Bay, near South Goose Cape. The Samoyed aettlement in that locality war vinited. A considerable river which enters the north-eant of Bielusha Bay, wes explored. The Saxon returned to Vardio on Jaly 30, and to England on Aagunt 12, after an interenting and adventarou voyage. Times,

## D ISA KEWENSIS× - (UNIFLORA $\times$ TRIPETALOIDES).

Ook illestration (3g. 51) repreacate Dis Kewensia $X$, the first of the pretty bybrid Disa raised in the Royal Gardens, Kew, and which annually make there one of the mont beautiful diaplays made by any of the member of the Orchid family. The culture of these plant appeara to bave attained perfection at Kew, and the fact that the plant here repreanted flowered there in eighteen month after the seed were sown, is ample proof of it. As will be seen, the plant in mont floriferous. The flowers are bright rosy-crimson, with amall parple spoti on the galea: and also, enpecially in the mature flower, often aimilar potting on the other sepsis.

## SOCIETIES.

## ROYAL HORTICULTURAL OF ABERDEENS

Avaust 22, 23. 24.-Tnanks to the generonity of the Aberdeen Town Council, the Royal Horticultural Society of Aberdeen were able this year to give a very fine display in Dathie Park. In point of numbers the exhibite were auperior to anything previously got together. The total entries amounted to 2021 as compared with 1375 -in fact, 650 more patries than at any previous show. The varions sectional diaplays were laid ont in large marquees.

## Fruit and Vegetable

The number of exhibits in those clasees was far greater than entered last year. The entries in the fruit section were more than tripled-392 as againat 129. The exhibits were very meritorious, especially in the sections devoted to Grapes and Gooseberries. Owing to the time of jear, that lavourite berry in Abendoenshire-the Strewberry-did not occupy the prominent place it usnaly fills in local shows. The Grapen were very fine, and Mr. W. Hutchisson, Balmedie, Mr. G. DUNCAN, Arbroath, and Mr. A. BEID Darris, are to be congratulated on the excellent apecimens they sent forward. Currants and Apples were good, but there was nothing remarked of excoeding merit. Vegetables were excellent in all classes. Mr. George Milne, gr. to Lady Gordon Cathcart, Cluay Castle, took the blue riband in this division with a magnificent basket of vegetables; Mr. Johi Dalaцrno, Pitgaveay. Ellon; and Mr. Thomas MidDLETON, gr. Monymusk House, being 2ad and 3rd respectively. In the same competition for market gardeners, Mr. A. Paterson, Ruthrieston, Aberdeen, was lat. In the other mections of this division, Mr. Berd, Urie Houke. Stonehaven; Mr. Johi Dalgarno, Elgin; Mr. John Davidson, Outseate, Pitmurton; and Mr. Alex. Grigor, Fairfield, gave a good rcount of themselves. The amateurs and working-classes whowed very tair products in this division.

## Pot Praxts and Cut Flowers.

These divisions constituted the prettiest items, and considering the backwardness of the season, were splendid. The sections for stove or creenhouse plants were woll filled, the entries being 288 againat 158 last year; cut flowers 620 against 583. Among profemionals, Mr. John Proctor, ©r. to Bir Wrimiax Hewdensox, Devanha Howe, Aberdeen, took the premier place for a group of plants (Orchids excluded) arranged for effect on the ground in a circle of 10 foet diameter, defeating many competitors. Mr. Reid, Durris; Mr. Joer Duthee, Trinity Cemetery: and Mr. Kennidy, Wallfeld, followed in same order.
Orchid were well represented, Mr. Join Proctor, Devanha, and Mr. Grigor, Fairfiald, taking the chief prizes. Such a display of Ferns has not been seen for a long time, those specimens sent by Mr. A. Grigor, Mr. Proctor, and Mr. Gillespie, Aberdeen, being much admired. Mr. Proctor, it may also be mentioned, carried chief honours for the best eight stove or greenhouse plants, for the best group of plante, for Orchids, and for four Ferns from the gove or greenhouse, dissimilar. Mr. Robb, gr. to Mr. Murbat, Glenburnie Parl, Aberdeen, was lat for Pelargoniuma and Begonias; and Mr. Strachan, gr. to Mr. Jorn WMre, Beechgrove, Aberdeen, received similar honours for his display of Fuchsias. The amateurs and working classes also showed well here. The cut flowers were a capital show.
Mr. Reng the prize-takers were Mr. A. Grigor, for Orchids; Mr. Reid, Urie House, fur ladies' prays; Mesers. T. Maver \& Sov, Aberdeen, for wreaths and erones Mr. Joha Fisser, gr. to Mr. CoUPER, Graigiabuckler, for the beat twanty four H.P. Roses, and Tea Roses Mr. Rerm, Uric Howse, for twelve H.P. Roses, disoimilar; and Mr. Jork Fixsor, Montroee, for the best twelve Dahliam.
A monaf nurserymen, the Roses, so ural, pave rise to reen Aberdeen, and the Mewo eminent firma, the Mewars. Cocress, the Dwodee men went the local firin to the right-about; but for
 play in this aection beigg vary beantiful. Among the other nanes of A. Wistlind, Banchory; Miver \& Soned the deen; Alex. Grees, Aberdeen; and Mr. Robert Burws, aberdeen.
A feature of the show was the displays sent for exbibition by Mesers. BEN. REID \& Co., $\Delta$ berdeen; Messis. W. SMith \& Son, Aberdeen; and Mr. Jozir Fobbes, Hawick. which was much admired by the viaitors; while Messrs. SMITH \& Aow and Mr. Eombes in their display did equally well.

## BRIGHTON AND SUSSEX HORTICULTURAL.

Avadst 57 and 28 - A very fine exbibition and Susex Horticultaral and Motan the Brighton Astociation, on the occmaion of the foprovement exhibition, under the new management dome, and the apacion Corn Exchange Tadjoininge
were flled with exhibits, and. in addition, two spacious marqueen were arected on the lawn, and they were quite full. Mr. Rapert Miller, the Ausintant Secretary, was, as usual, very active, and the ataging committee got through their work in good time, and the judging commenced at an early hoar.
Groups.-There were three exhibitore in the class for a group of plants arranged for effect, to fill a spsce not exceeding 150 square feet. The beat was from Mr. Gro. Miles, Victoria Nursery, Brighton; it was singularly light and gracoful. Mr. H. J. Jowes, Ryecroft Nursery, Lewisham, was
2ad, with \& very imposing group, composed of Hegonias of exoellent quality, admirably arranged with Ferns and foliage of Asparagus plumosus.
Tha next class was for a miscellaneous group, occupying 80 feet. This was won by Mr. E. Meachen, gro to Mrs. ArmgTroNG, Willea, surronnded by plants asually found in groups of this vilea, surroanded by plants asually found in groups of this character. Mr. G. sians, Rt. to 2nd.
Groups of Ferns were delightful, the bent came from Mr. J. Adams, gro to the Rev. Sir C. Shiffern, Bt., Combe Place, Lewes, a masterpiece of effective grouping; some finely coloured examples of Adiantum, A. Farleyense being used with minor Ferns. Mr. G. Miles, Victoria Nureery, was 2nd. This is a class other societies might copy with advantage.

## Plants.

Mr. A. Offer, gro to J. Warbry, Ksq, Handcross Park, Crawley, was lst for six stove and greenhouse Ferns. with fine examples of Davallia polyantha, D. Mooreana. Cibotium Schiedei, Dicksonia antarctica, Adiantum cardrochlena, and a gra id piece of Microlepia hirta crista!a. Messrs. W. Miles \& Co., West Brighton Narsery, were 2nd.
The best apecimen flowering plant was Stephanotis floribunda frcm Mr. G. Fenvell, gr. to K. Cazalet, Eaq., Fairlawn, Tunbridge Wells.
Tables of flowering and foliage plants, 8 feet by 4 feet, were very effective, eight of them being placed under the dome. Mr. J. Turner, gr. to Sir Greville Smith, Wick Hall, was lot with a very graceful arrangement; and Mr. G. Miles, 2nd.
Tables of Begonius, 4 feet square, were also very effective, several of them finding a place in the Corn Exchange. The let prize went to Mr. F. Fairs, gr. to R. Clowes, Eeq., Clayton Wickham, Hassocks ; Mr. W. Hesd, The Dive Nursery, Hortham, was 2nd.
Here wore the colloctions of eight stove and greenhouse plants. Mr. E. Meacres whs placed lat with a fine piece of Latania borbonica, grand examples of Crotons Queen Victoria and Prince Waldeck, Anthurium orystallinum, Bougainvillea glabra, Allamanda Hendersoni, Statice fimbriata Gilberti, and Ivora javanicum. Mr. OfFER was 2nd.
Groups of sir Crotons were represented by small but finelygrown and brilliant-coloured apecimens; Fachsias and zonal Pelargoniums by nice examples of moferate size.
The best six Orchids came from Mr. G. Duncan, gr. to C. J. Lucas, Req., Warnham Court, Horsham, who had Dendrobium formosum giganteum, Cattleya Dowiana, C. Mossise, Odontoglowoms Wilclreanum and Alexandres, and Oncidium Fabea Mr. R. Garnet, gr. to R. G. Fletcher, Req., Mount Harty. Prestoa Park, was 2nd. Such foliage plants as Palmos, Coleus in the form of well-grown and coloured specimens, exotic and British Ferns, the former small but admirably grown; and table plants were all well shown.
Cut $f$ lowers were a great feature, the Cactus Dahlias in particular commanding general praise. The leading classes occupied a commanding position on the platform ander the dome, but the light was bad and the judging difficult. Bores of cat st, ve and greenhouse flowers were very attractive; the winner of the lst prize for twenty-four buaches had large and impoeing bunches, though set up in a somewhat formal manner. Bores of twelve varieties were also good. Messrs. Pririnss \& Son, nurserymen, Coventry, had the beat twentyfour Roser, among theth a magniticent bloom of Black Prince, which they appear to grow in the finest condition; but though it was sent out some twelve years aqo, it is rarely seen. Mr. T. W. ToUnG, Rowe-grower, Eastbourne, wae 2nd; some good blooms being shown by both exhibitore.
With twelve Rowes, Mr. K. Harry, gr, to Mre Evensyikid, Dense Park, Horham, was 1at; and Mr. Iawrence, gr. to T. West, Eeq., Tanbridge, Horshama, 2ad.

With twelve Teas, Mr. G. W. PIPERB, nursergman, Uckield, was 1st; and Mr. H. Harri 2nd, some very good blooms boing staged.
Spikes of Gladioli were in good condition, the individuale in the ist prize twelve of good length, clean, fresh, and the
quality excellent. uality excellent.
The best fortyeight Dahlias came from Mr. S. Mortimer, Swise Nursery, Farnham; Mr. F.W. Seale, nurseryman, Sevenoaks, was 2nd.
With twenty-four Dahliag, Menmer. J. Cheal \& Soxs, Low\& Sows, 2nd. Crawley, were lot; and Mests. Pericixs \& Sons, 3nd.
For twelve blooms, the lot prize went to Mr. J. Stredwice, Silver Hill, St. Leonards: Mr. J. D\&Wsom, of the same addrem, being 2nd. Pompon Dahliaa in twelve banches, each of ten blooms, were very fine, and the same with six bunches.
Bunches of siogle Dahlias in 24's, ten blooms in a bunch, were very striking. Mr. F. W. Seale was lat, and Meemrs. them, but we thought the latter hat litie to choose between them, but we thought the latter had erred nomewhat on the side of size.

Cactus Dahlias wore very numerous. Mr. Seale we ht with twelve bunches. Delicsta, Matchless, Lady Penzam, and other popular varieties being in their best form. Mr. \% Mortimer was 2nd. For sir varieties also, there was a ket competition; and Messrs. J. CHeal \&ov's special prizatoe nine bunches, three of each, was numerously contested.
Collections of herbaceous or bulbous flowers brought sime fine contributions. Mr. W. Mantos, gr. to Mrs. Clifrone Borer, Pickwell, Boling, was 1st with fresh examples is gool condition; Mr. G. H, Sage, The Gardens, Ham Howe
Surrey, being 2nd. With twelve bunches, Mr. F. W. Sraur Surrey, being 2nd. With twelve bunches, Mr. F. W. Seus Preston Park, 2nd. Collections of twelve bunches of aumb Zinnias, Asters. quilled and flat-petalled, were also show.
In the way of floral dacorations, Messrs. S. Perkins \& bos took the 1st prize with one bride'd and one ball-room buaqu, done in their usual excellent style; Mears. Scrivemed \&Co.,
Floral Hall, Watford, came 2nd. Wreaths or a device were Floral Hall,
also shown.
There was a cunsiderable number of centre-pieces, with natural flowers and foliage. Mis. Jounson, Seldenvily Worthing, set up a charming light arrangemeat composed of light grasees and Ferns, and pink and heliotrope-tinted swut Peas; Miss L. Hudson, Gunnersbury House, Acton, came and.

## Fruit.

Of fruit there was a remarkable display, perhaps one of the best seen in Brighton in late years. There were sereral calt lections of eight dishes. Mr. Gore, florist, Polegate, wats lof with finely finished Gros Maroc and Muscat of Alexandris Grapes, Barrington Peaches, an unamed Nectarine, and Bom Chyétien Pears, Moor Parly Figs, and one other; 2nd, Mr. W. Taylor, gr. to C. Biyor, Esq., Tewkesbury Lodge, Fant Hill.
The best three buaches of Black Hambargh Grapes came from Mr. T. M. Le Pelley, Valley Vineries, Kusper, very fine indeed. The best three bunches of any other black Gripe wore Gros Maroc, very finely fiaished, frum Mr. T. Ambroes, gr. to E. Blenikiron, Esq., The Farm, Broadheath. The bett three bunches of white Grapes were superbly-finished Musat of Alezandria from Mr. W. Tidy. Grapes were also shown as ingle buEches.
Melons were plontifully shown, and the tasting process must have been a tedious one. The two best diehes of Peaches were Dymond and Bellegarde, from Mr. G. Goldsmith, gr. to W. I. Hubbard, kaq., Leonardslee, Horsham ; Mт. H. Harris, gr. to Mrs. EVERsfieLd, being 2nd. Mr. Goldsmith had the beat two dishes of Nectarines in Elruge and Pine-apple. Mr. Cole, gr. to H. F. Walker, Eeq., Balcombe, was and with Pricee of Wales and Downton. Pears, both dessert and stewing, were very good.
Apples wese in grand form, there were many entries for four dishes of culinary varieties, Mr. Will Tayzor, was let with surerb fruite of Ecklinville, Lord auffield, The Quees, and Warner's King.
Mr. Martir had the best four dishes of deacert applen staging Aatrachan, Worcester Pearmain, Queen, and Irinh Peach.
Single dishes were also shown in plenty; also plamen Cherries, Figs, \&c.
Among vegetables, Potatos were numerous, and cullecticn decidedly good.
Miscellaneous Collections.-A very fine group of Lilies and other plants, also a muperb collection of Appl
Messrs. Balchin \& Sons, Hassocks Nureeries.
From Measrs. Veitch \& Sons, Cheleea, came one of the features of the show-a very fine group of Pitcher Plante, \&ce, and some beautiful Streptocarpus from seed sown in Janary last. A Gold Medal was a warded.
Mr. J. Charlton, Tubbridge Wells, had a collection of Dahlias, \&c.; and Mr. Will Taylor some cut Roses.

## BATH

Auaust 28.-The Bath Fioral Fête and Band Committee were fortunate in having fine weather for the bolding of their annual show in the Sydaty Gardens on Wednesday. The show, on the whole, compared favourably with ita predecessors, and mali credit is due to the Hon. Secs., Mesar. R. F. Pearton and W. Jeffery, for the excellent arrangementa mado noder their anperviaion in the varions aectiont of the show for the staging of exhibits.

Fuchsias are al ways gints. class for nine plants in as many varieties, there were only two lots put up, thees being really grand plants in every senae they were about $9 \frac{1}{4}$ feet high, $4 \frac{1}{3}$ feet through at the base and well furnished from bottom to top with healthy folisge, grandly flowered, the varieties represented being Charmus, Bountifnl, Doel's Favourite, Final (darks); Arabella, Lustir Improved, Margareta, Barriett Lye, and Mre. Rundel (light) Mr. George Tucker, gr. to Major Olab
with the above; Mr. Marsi was 2nd. In the class for six plante in six varieties, two Market Laring up. Mr. James Lye, gr. to Hon. Mrs. Har, Market Lousins
ton, Wilts, wres a good let; Mr, Snell, gr. to Mre. Cousin ton, Wilts, was a good let; Mr. Anell, Gr. to Mrr. Cousant
Weston, was a good 2nd. In the clase for twelve ornmmental foliage plants, sirs stored and six greenhouse, Mr. Cypirer whe easily list, and shomm well. Mr. CypHer was who lat in the clase for Mne apst. aso. foliage plant, with a fine Croton Chelooni, Mast. Mp. Crp sons had the bett specimen of Linum antilliter Mp. CyPHER had the bent eight plants of ornamental folismm

Qusen Victoria，Mortfontainensis，\＆e．Tha same skilful grower took chief honours for six Eeaths；Mr．TUCK Eis being a creditable 2nd．The last－mentioned exhibitor secured lat for apecimen flowering greenhouse plant，with a good Statice profuse；Mr．CyPEER taking a like honour for a specimen stove flowering－p＇ant，with Irora Duffii．
Mr．H．Pocock，Trowbridge，was lst for three atove plast，distinct．showing a very finely－flowered Ixora Wil－ liamsii，I．coccinea，and Lapageria asba．Mr．Cry shating the best siz stove and greenhouse fowering plants，showing． among others，Bougainvillea，Sanderi，Clerodendron Bal－ louriana，

Coleus were well shown by Mr．Dexton and Mr．C．Gbrb Low，the plante，flat－trained，being highly coloured．
For twelve exotic Ferns，Mr．Tucker was lat，with an even fred lot of plants，including excellent plants of Davallia hemi－ ptern，Adiantum gracillimum，and Dicksonia antarctica；Mr． Pocock，was 2ad．Mr．Baily，Frome，had the best six plants Pocock，was ading good－sized Davallia Mooreans，and Adiantum Farley－ includis Mr．H．Holures had the best specimen Fern in s fine ense．Mr．J．Hilia polyantha（D．divaricata）．
Groups arranged for effect，on a space not less than 100 Groups arradged lor effect，fou competitors．The con－ equare feet，were shown by four competitors．The con－
test lay between Mr．CxpHer，Cheltenham，and Mr． test lay between Mr．Cxpiek，Cheltenham，and Mr． Choice Orchids of suitable varieties and size told well in Mr． Cypher＇s srrangement，which was placed 1st．

Cut Flowers．
The clases devoted to cut flowers were were filled．Mr． Baird，gr．to F．H．Fox，Esq．，Wellington，was lat for thirty－ Baird，gr，to F．H．Fox，showing a fine lot；Mr．HuLc was six Mr．SAMUEL ToTTLE，Taunton St．James，was lat for 2nd．Mr．8amuel Totile，Taunton st．James，
Mr．George Humphrirs，Chippenham，had the best twenty． our show varieties of Dahlias with a solid，fresh－looking lot of blooms．
Mr．Thomas Hawrins，Soundwell，was 1st for twolve blooms；Mesary．J．Grat \＆Sons，Frome，being 2nd．The last－named ezhibitors took 1st for nine blooms，and Mesar Kexnes，Wilhuws \＆Co．，Salisbury，were placed 2nd．
In the clase for aingle Dahlias，shown in bunches，Mr． Thos．Truckle，gr．to THomas OAki，Esq．，Tiverton，was 1st， with a good exhibit．
Roes made a line show．Mr．George Prixce，Oxford，was lat for twenty－four single blooms，distinct，showing a grand lot for the time of year，including Louis Van Houtte， Reynolds Hole，Hon．Edith Giffard，and Duke of Edinburgh Mr．Srephes Treseder，Cardiff，was a creditable 2nd．Mr Hosps，Bristol，had the best twelve blooms，in vingle trusses and Dr．Budd，Bath，was lat for twelve Teas，with excellent blooms．
Owetas Dahliae were well exhibited by Menme Kryans． Wrutiams \＆Co．s Salimbury，and were much admired．

## Frcit．

On the whole this made a good display，though in the class for a collection of twelve dishes only one lot was staged，viz． that from Mr．Nash，gr．to the Duke of BeauFort，Badminton， Chippenham，who was justly awarded the lat prize．
The chief class for Grapes was one for eight bunches in four Farieties，and only three lots were put up in compotition． Mr．Gibson，gr．to Earl Cowher，Draycote House，Chippenham， wat lat；and Mr．S．Hodgee，gr．to JıMEs Fosiri，Esq．Bath， 2ad．The lst prize collection contained grand bunches of Groe Maroc，Black Hamburgh，fine in berry and colour Buckland Maroc，Black Hamburgh，fine in berry and comples of Madres－ Sweetwater
field Cuurt． There were twelve stands of three buaches of Black Eam－
burgh．Miss Marniott，Bath，was an easy ist，showing speci－ burgh．Miss MarniotT，Bath，was an easy lat，foowing speci Gibson was 2nd．
Three stands of two bunches of Mascat of Alexandria were otaged，and Mr．W．Carpentier，gr．to A．R．BaILET，Eqq． Prome，was wall let，as he aleo was for any other white．
Mr．Nisy was good lat in any other black clas，with Mr．NAsH waingood bunches of Black Alionate，fiae in ahape and berry．
Melons were fairly well represente 1．Twenty－one iruits of red Melons were airiy well Mr．Joses was lst for a green and green kinds were shown．Mr．W．Straguell，pr．to the flesh，with Hero of Lockinge．Mr．W．Struguel，gr．had the Right Hon．W．H．Lova，Rood Ashton，Trow
best scarlet－fleeh in Carter＇s Blenheim Orange．$\quad$ Peaches were not extensively show．Mr．Pgme，gr．to Mrs．Golvamith．Trowbridge，had the best dish of nine，with good even fruite ；and Mr．Cabpenter had the best vix．
Ifectariaes were well represented．Mr．John Wright，gr． to E．C．Wriss，Feq．Kelstons Knoll，Bath，had the best aine，showing extre fine fruits of stanwick Elruge；Mr． Coombe，gr．to J．W．LaxGDOX，Esq．．Freshyy，was 2nd．
Plums were largely shown，and on the whole the quality and arze of the fruits were good．

Of Cherrie，there were niae good dishes put up，Mr．Jonns taking the premier position with very fine Morellos．
Pears were plentifully shown．Mr，J．Gresos wae a good Ist；and Mr．Wilkins，gr，to Lady Theodora GUEst，In－ wood，Henstridge，was 2nd．
Apple made a foe display，agood length of staging boing devoied to them．Mr．E．D．Bourdillion，Wells，had the beet three dibles of domert virietien；Mr．G．Garawar．Fath， tariog and place．
Vrgetables were well represented．Mr．Copp，Sherborn， was lst for Mears．Webb＇s special prize for tix kinds，and for Sewrs．Sutton \＆Son＇s prizs for a similar collection．Mr． Winkras was let for the Society＇s clase for twelve kinde，and Whe quality of his produce was very good．

Non－competitive Exhibits．－Mesors．GEO．BUNY\＆RD \＆CO． Maidstone，had a collection of fifty varieties of Apples，the fruits being of fine size，clean，even，and many of them besutifally coloured．Mesara．Geo．Coolinu \＆Sons also Lad a good collection of Apples and Pears．

## SANDY EORTICULTURAL

Auadst 29．－The Sandy show was held on the above date，and financially，an well as in other rempects，the result was a very favonrable one．Hor ticulture form but a mecion of this exhibition where there are classen for doge，cats，poultry，cage birds，pigeons，and other apecialties．However，the horticaltaral part of the schedule included clasees for plante，fruit，vegetables，and market garden produce，and a good exhibition was made of these．
In the operi classes for planto，Mr．J．CypHerb，Chelten ham，well won lst place for ten stove and greenhouse plants in flower；and Mr．W．Fince，Coventry，also nhowed credit． ably．The best group of plants arranged for effect was the exhibit from Mr．W．Vause，Leamington；and he was followed by Mra．Astell，Woodbury Hall．Mr．W．J．Empson had th best six plants suitable for table decoration．
In classes excluded from the competition of nurserymen， Mr．W．J．Empson took lst place for four foliage plants， distinct；and Mrs．Astikl was 1st for sir and aneenhous Forns． Other clases for plants in the open section，also for amateurs and cottagers，were very nume
display of commendable quality was made．
display of commendable quality was made． kinds of fruit，Pines excluded，was won by Mr．G．B．Allis． gr．to Major 今HUTTL EWonte，Old Warden Park，Biggleswade， and the collection of wix kinds by Mr．W．J．EMpson．Both these exhibitors also，figured largely among the winners in other fruit classee．

Vegetables and cut flowers were considerable features，and altogether the exhibition was large．

## Gbituard．

Mrs．R．I．Measures．－We regret to have to announce the death，on the 2 ad inat．，after a long illness，of Mrs．Measures，the wife of R．I．Measurer， Esq．，of Cambridge Lodge，Fiodden Road，S E．

Mias Jane Saul．－Oa the 2 ad inat．，at her renidence，Bow Lodge，Bow Road，Mies Jane Saul，in her eighty－eighth year．

## MARKET8．

## COVENT GARDEN，September 5.

 －cannot sooopt any reaponsibility for the eubjoinod reporta．They aro farnished to us regularly evary malemen，who revise the liot，and who are responsible
for the quotations．It must be remembered that these quotations do not represent the prices on any particular day，bat only the general averages for the weelt preceding quality of the samplee．the supply in the market，and the quanity of and they may fluctuate，not only from dey to dem，but often neveral times in one dav．KD．$?$


| Thuti，－Avimas Whohralli |  |  |
| :---: | :---: | :---: |
| Apples per bush．．．10－20 | Grapes，Guernsey．．． |  |
| Cobs，per 100 lb ．．．． $400-450$ | Melons，each ．．． | 。 |
| Damsons，hall aieve 10－20 | Pine－apples，St．3s． |  |
|  |  | 40－60 |
| Filberts，per 100 lb .25028 | Peaches， | $80-30$ |
| Gages，hall tier | grd size | $00-10$ |
| Grapes，let quality． <br> raper Foglith $16,18-1$ 6 | Paars，per busk． | 0 |
| －2nd quality．．． 0 色 10 | Plams，balf siave |  |
| Mugenta ．．．10－ |  |  |

Platit or Pots，－AVERAGE Wholmaze Pancis．


## SEEDS．

Londor：Sept．4．－Messrw．John Shaw a Sons，Seed Merchants，of Great Maze Pond，Borough，London，S．X． Write that there is now a moderate steady sale for Trifolium incarnatum；prices continue at the abnormally low level pre－ viouly noted．Winter Tares are still limited，alike in suphly and demand；quotations show no noteworthy change．Seed Rye continues excoedingly cheap．Chover and Grass seeds meet at present with no speculative attention．New sowing Rape seed is now unusually low－priced．There is nothing Rape seed is now unusually low－priced．There is nothing doing in Mustard．Sayrna telegrams describe the market there for Turkish Cana

## FRUITS AND VEGETABLES．

Bonovar：Sept．3．－quotations：－Carrots，1s．9d．to 3s． per dozen bunches；Horseradish，1s． 3 d．per bundle：Onions， 3s．6d，to 4s．6d．per cwt．；Apples，2s．to 4s．per bushel；Pears 3s．to 4s．per case；Plums，2s，to $3 s$ ．per sieve．

SpITALPIELDS：Sept．3．－Quotations：Cabbages，3s，to 4s． per tally：Collards，2s．to 3s．per tally；Carrota，18．6d，to 24. per dozen buaches ；Marrow，1．，6d．to 2t．per tally；Turnipe， 2s．6d．to 3s．per dacen bunches；Apples，Keowici Codlins， 2s．to 2s．61．por bushel；do．，Councillors，2s．6d，to 3s．do．

Stratrord，Sept．3．－Fair supplies of all kinds of Rruit and vegetablee，and trades bit firmer，as under：－Cabbagen，1s．6d． to $3 s$. per tally ；Cauliflowers，1s．to $2 s$ ．per dozen；do．，bs． to 8s．per tally；Turnips，1s．3d．to 2s．per dozen bunches Carrots，horsehold， 1 s ．ed．to 2s．per dozen bunches；do．，bag 26s．to 40 s．per ton；Mnngels， 15 s ．to 19s．do；Swedes， 17 s to 20s．do．；Onions．English，70s．to $80 \mathrm{~s}^{\mathrm{d}}$ do．；do．Dutch 2s． $9 d$ ．to 3s．per beg ；do．，Ghent，2s．to 2s．6d，；do．，Port 4s．64．to 3s．per case；Applen，English，cookers，1s． $6 d$. to 38 ．per bu hel ；do．，descert， $2 s$ ．to 4s．6d．per bushel： Watercress，6d．per dozen；do．，ss．per pad；Plums， ordinary，1s．6d．to 2s． $3 \alpha$ ．per half－sieve；do．Vic－ torias，2s．6d．per half－aieve；Damons，1s．9d．to 2s．3d．per half－nieve；Greengages，3s．Bd．to 4s．8d．per half－nieve Tomstos，English，2s，to 3s．per peck；foreign， $9 \alpha_{0}$ to 1s． $3 \alpha_{\text {．}}$ per case；Cucumbers，Frenct，1s．6d，to 2s．6d．per doyen do．，field， 3 s ．to 6 s ．per dozen；Beans，Scarlet， 1 s .3 d ．to 1 s .8 d ． per buahel；do．，2s．6d．to 3s．bd．per bag；Beetroot， 8 s ．to 2s．6d．per dozen bunches；Celery，10s．to 12s．per dozen bunches；Parsley，1s．3d．to 18．8d．per dozen buoches．

Fahringidow：Sept．B．－Quotations：－Cabbages，4s．per tally；Cauliflowerp，2s．per duzen；Marrows，1s．per dozen； Turnips．2s．per dozen tunches；Carrots，3r．per dozen bunches Onions，Egyptian，4s．per bay；Cucumbers，2s．per dozen；
 Lettuces，1s．Bd．per zcore；Sage．2s．per dozen bunches；
Parsley，31．per bunch：Mint，do．；Tomatos，3s．per basket of 12 lb ．：Apples，cooking，2s．© 6 ．to 3s．per bushel ；Ingestree， 6s．per bushet：Plums，Victorias，33．6d．per halt－bushel do．，Orleans，\％s．6d．per bushel；Damsons，2s．8d．per bushel Green Gages，6s．per half－buahel；Mubhrooms，ed．per pound．

## POTATOS．

DowouaI ：September 3．－Quotations ranged from 8 son，to 90v．per tom．
SpITALFIELDS：September 3．－Quotations：－Puritana，best 60 s to 70 s ：；Brucen，b0s．to 60s．；Resding Giants，45s，to 60 s ． Snowdrope，80s．to 70s．；Suttons＇Regente，508．to 60s．per ton．
8trationd：Sept．3．－Quotationa：－Magnume，dark eoil， $35 s$ ．to 45 s ；do．，light noil，58s．to 65s．：Reading Giants， $\mathrm{z}^{5} 5 \mathrm{~s}$ ． to 70s．；Snowirops，58s．to 75 s. ；Hebrons，65s．to 75 s ． Regenis，60．to 71s．per ton．

FARrivanox：Seps．E－Quotations：Snowdrope， 70 s ，to 908. Eebroan，60s．to 80s．；Puritane， 70 s．to 90s．；Early Begents， 55s．to 68. ；Early Eoee， 608 ，to 70 si ；Imperators，55s．to 65s． per ton．

## SOCIETIES.

## ROYAL HORTIOULTURAL OF ABERDEEN.

August 22, 23.24.-Taanks to the generonity of the Aberdeen Town Council, the Royal Horticultural Society of Aberdeen were able this year to give a very fine diaplay in Dathie Park. In point of namber the exhibite were auperior to anything previoasly got together. The total entrie amounted to 2021 an compared with 1375 -in fact, 650 more patries than at any previous show. The various ectional displays were laid out in large marquees.

Fruit and Vegetabley,
The number of exhibits in these claseses was far greator than entered luct year. The entries in the fruit section were more than tripled-392 against 129. The exhibits were very meritorious, especially in the aections devoted to Grapes and Gooseberries. Owing to the time of year, that favourite berry in Aberdeenahire-the 8trawberry-did not ocoupy the prominent place it man ly fille in local shows The Grapes were very fine, and Mr. W. Hutciinson Balmedie, Mr. G. Duwcax, Arbroath, and Mr. A. RELD Durris, are to be congratulated on the excellent specimens they sent forward. Currants and Apples were good, but there was nothing remarked of exceeding merit. Vegetables were excellent in all clasees. Mr. Georgo Milne, gr. to Lady Gordon Cathcart, Cluny Castle, took the blue riband in this division with a magnificent bagket of vegetables; Mr. Johir Dalaıbno, Pitgaveny, Ellon; and Mr. Thomas MidDLETON, cr., Monymusk House, being 2nd and 3rd respecively. In the same competition for market gardeners, Mr. A. PATERSON, Ruthrieaton Aberdeen, was lat. In the ther mections of this division, Mr. Rerio, Urie House, Stonehaven; Mr. Joien Dalgarno, Elgin; Mr. Jorn Davidson, Outgeats, Pitmuxton; and Mr. Alex. Grigor, Fairfield, gave a good account of themselves. The amateurs and working-classes ahowed very fair prodacts in this division.

## Pot Playts and Cut Flowers.

These diviaions constitated the prettiest items, and considering the backwardnes of the season, were splendid. The seotions for stove or greenhouse plants were well filled, the entries being 282 against 156 last year; cut flowers 620 against Wiwhuang profomionals, Mr. John Proctor, gr. to 8ir premiar place for as group of plants, (Orehids, tools the arranged for effect on the ground in a circle of 10 feet arragged 0 er effect on the ground in a circle of 10 feet
diameter, defeating many competitors. Mr. Reid. Durris; diameter, defeating many competitors. Mr. Reid, Durris; Mr. Johr Duthie, Trinity Comet
Wallfield, followed in same order.
Orchids were well represented, Mr. JoHv Proctor, Devanha, and Mr. Grigor, Fairfeld, taking the chief prizes. Such a display of Ferps has not been seen for a long time those specimens sent by Mr. A. Grigor, Mr. Proctor, and Mr. Gillespie, Abardeen, being much admired. Mf. Proctor, it may also be mentioned, carried chief honour. for the best eight stove or greenhouse plants, for the beat group of plants, for Orchids, and for four Ferns from the tove of greenhouse, dissimilar. Mr. Robb, gr. to Mr. Muriay, Glenburnie Part, Aberdeed, was list for Pelargoniams and Begonias; and Mr. Strachan, gr. to Mr. JoHN FYFR, Beachgrove, Aberdeen, recoived similar honours for his dieplay of Fuchsias. The amateurs and working clacses also showed well here. The cut flowers were a capital show.
Avang the prize-takers were Mr. A. GRIGon, for Orchids Mr. Reid, Urie House, for ladies' sprays; Mesarn. T. Mavin Sox, Aberdean, for wreathe and arosees Mr. John Fiaser, gr. to Mr. COUPER, Graigiabackler, for the beet twanty- four H.P. Rones, and Tes Roses Mr. Rito, Uric Woase, for twelve H.P. Roses, disvimilar; and Mr. JoHy Wruon, Montrose, for the best twelve Dahliar.
Among nurserymen, the Roses, as asual, gave rise to hean livalry between thone two exainent firms, the Menara. Cocker Aberdven, aad the Mewrs. Oeorit. Duadee. For Tree Roses, the Duadter mean memt the local frra to the right-about ; but for Fi.P.'s, the politions were reversed, the Meburs, Cocken's dith play in this section being very beantiful. Arang the otho names deen. An. Westhand, Bunchory: Maver \& Son, Aber deen: Alex. Giles, Aberdeen; and Mr. Bobert Burws Aberdeen.
A fenture of the show was the displays sent for exbi bition by Mesars. Bev. Reid a Co., Aberdeen; Messis. W SMTH \& SoN, Aberdeen; and Mr. JoHi Fonbes, Hawick The Messra. REID Co. had a magnificent display, and one which was much admired by the vinitors; while Meare Smirit \& Son and Mr. Fonbes in their display did equally
well. ,

## BRIGRTOY AND SUSSEX HORTICULTURAL

Avaus 57 axv 28.-A very fine exhibition rewarded she effort of the committee of the Brighton
end Sanex Horticultural and Matsel Astociation, on the occaion Mutaal Improvement exhibition, nnder the new manam the fouth annual dome, and the apacions Cornagement. The huge
wars filled with exhibits, and in addition, two spacious marquees were orected on the lawn, snd they were quite full. Mr. Rapert Miller, the Assistant Secretary, was, as usual, very active, and the ataging committee got through their work in good time, and the jadging commenced at an early boar.
Groups.-There were three exhibitors in the class for a group of plants arranged for effect, to fill a space not exceed ng 150 square feet The was from Mr, GEO. Miles, Victoria Nursery, Brighton; it was singularly light and graceful. Mr. H. J. Jones, Ryecroft Nursery, Lewisham, was 2ad, with a very imposing group, composed of Begonias of
exoellent quality, admirably arranged with Ferns and foliage exoellent quality, admirably arranged with Ferns and foliage of Asparagus plumosue.
Tha next olass was for a miscellaneous group, occupying 80 feet. This was won by Mr. E. Meachen, gro to Mrs. Armstrong, villea, surfounded by plants agually found in groups of this character. Mr. G. Sims, uf. to C. J. Iswood, Esq., Dyke charactor. Mr. G. sima, gr. to
Road, Brighton, was a very good Ind.
Groups of Ferns were delightiul, the best came from Mr. J $\Delta d a m s, g r$. to the Rev. Sir C. Shiffern, Bt., Combe Place Lewes, a masterpiece of effective grouping: some finely coloured examples of Adiantum, A. Farleyense being used with minor Forns. Mr. G. Miles, Victoria Nurtery, was 2nd This is a class other societies might copy with advantage.

## Plants.

Mr. A. Offer, gr. to J. WArrbx. Esq, Handcross Park, Crawley, was list for six stove and greenhouse Ferns. with fine examples of Davallia polyantha, D. Mooreana. Cibotium Schiedei, Dicksonia antarctica, Adiantum cardiochlæena, and a gra id piece of Microlepia hirta cristata. Messrs. W. Miles \& Co., West Brighton Nursery, were 2nd.
The best specimen flowering plant was Stephanotis floribuada frcm Mr. G. Fennell, gr. to K. Cazalet, Eoq., Fairlawn, Tunbridge Wells.
Tables of flowering and foliage plants, 8 feen by 4 feet, were very effective, eight of them being placed under the dome. Mr. J. Turner, gr. to Sir Greville Smyth, Wick Hall, was 1st with a very graceful arrangement; and Mr. G. Miles, 2nd.
Tables of Begonius, 4 feet equare, were also very effective, several of them finding a place in the Corn Exchangs. The let prize went to Mr. F. Fairs, gr. to R. Clowes, Eeq., Clayton Wickham, Habsocke; Mr. W. Head, The Dive Nursery, Horcham, was 2ad.
Here were the collections of eight atove and greenhouse plants. Mr. E. Mescriex wis placed lat with a fine piece of Latania borbonica, grand examples of Crotons Queen Victoria and Prince Waldeol, Anthurium crystallinum, Bougainvillea glabra, Allamanda Hendersoni, Statice fimbrista Gilberti, and Izora javanicum. Mr. OfFer was 2nd.
Groups of six Crotons were represented by small but finely grown and brilliant-coloured specimens; Fuchsias and ronal Pelargoniums by nice examples of moferate size.
The best six Orchids came from Mr. G. Duncan, gr. to C. J Lucas, Rsq., Warnham Court, Horsham, who had Dendrobium formosum giganteum, Cattleya Dowiana, C. Mossie, Odontoglosoms Wilekeanum and Alexandre, and Oncidium Fabes. Mr. R. Garnet, gr. to R. G. Fletcher, Req., Mount Eury, Preston Park, was 2nd. Such foliage plante as Palms, Colev, in the form of well-grown and coloured specimens, exotic and British Ferns, the former small but admirably grown; and table plants were all well shown
Cut 4 lowers were a great feature, the Cactus Dahlias in par ticular oommanding peneral praise. The leading clases occupied a commanding position on the platform under the dome, but the light was bad and the judging difficult. Bores of cut ot. ve and greenhouse flowers were very attractive; the winner of the Jst prize for twenty-four bunches had large and imposing bunches, though set up in a somewhat forma manner. Bozes of twelve varieties were also good. Messrs. Prixins \& Son, nurserymen, Coventry, had the best twenty four Rojes, among them a magniftcent bloom of Black Prince four Rojes, among them a magnificent bloom of Black Prince,
which they appear to grow in the finent condition; but though $t$ was sont out some twelve years ago, it is rarely seen. Mr. T. W. Youkg, Rose-grower, Rastboums, wae 2nd; some good blooms being shown by both exhibttore.
With twelve Roees, Mr. H. Harry, gr, to Mr. Everspimad Deane Park, Horlham, was lot; and Mr. Lawrence, gr. to I. West, Req., Tanbridge, Horshan, 2nd

With twelve Tese, Mr. G. W. Prerin, nurseryman, Ucheneld was 18t; and Mr. H. Hanhy 2ad, womo very good bloom being staged.
Spikes of Gladioli were in good condition, the individual in the lat prize twelve of good length, clean, freah, and the uality excellent
The best forty-eight Dahlias came from Mr. S. Mortimer, Swiss Nursery. Farnham; Mr. F. W. Skule, aurseryman, Sevenoeks, was 2nd.
With twenty-four Dahlias, Meswrs. J. Cerehl do soss, Low field Nurserie, Crawley, were lat; and Meesrs. Perkin. \& Sons, 2nd.
For tweive blooms, the let prize went to Mr. J. Stredwics, Silver Hill, 8t. Leonands; Mr. J. DAWsos, of the smme addreen, being 2nd. Pompon Dahlias in twelve bunches, each of ten blooms, were very fine, and the same with sir bunches.
Bunches of siogle Dahlias in 24 's, ten blooms in a bunch, were very striking. Mr. F. W. Selle was let, and Measrs. them, but wis thos, 2md, with Vary little to choose between side of size. In the the latter had arred nomewhat on the side of size. In the olacs for bix bunches, thexe was no
competition.

Cactus Dahlias were very numerous. Mr. Seale was it with twelve bunches, Delicata, Matchless, Lady Peazara, and other popular varisties being in their best form. Mr. , Mortimer was 2nd. For sir varieties also, there wha heta competition; and Messrs. J. Cheal Eov's apecial prizo for iae bunches, three of each, was numerously contested. Collections of herbaceous or bulbous flowers brought name fine contributions. Mr. W. Mantos, gr. to Mrs. Chiphon Borer, Pickwell, Boling, was 1st with fresh example, in gool condition; Mx. G. H. Sage. The Gardens, Ham How, Surrey, being 2nd. With twelve bunches, Mr. F. W. Slate was 1st; and Mr. W. E. Anderson, gre to Mr. F. W. Suse Preston Park, 2nd. Collections of twelve bunches of auman Zinnias, Asters. quilled and flat-petalled, were also shom,
In the way of floral dacorations, Messrs. S. Perkirs \& 80 ook the lst prize with one bride's and one ball-room boaquen, done in their usual excellent atyle; Messys. Scrivenin $\mathrm{Ca}_{\mathrm{o}}$, Floral Hall, Watford, came 2nd. Wreaths or a device wes also shown.
There was a considerable number of centre-piecos. with astural flowers and foliage. Mrs. Jornson, Soldeavilo Worthing, sot up a charming light arrangement compoed of light grassea and Ferns, and pink and heliotrope-tinted swat Peas; Miss L. Hudson, Gunnersbury House, Acton, came 20d.

## ERUIT.

Of fruit there was a remarkable display, perhaps one of the best seen in Brighton in late years. There were sereal callections of eight dishes. Mr. GORE, florist, Polegate, was ist rith finely finished Gros Maroc and Muscat of Alezandris Grapes, Barrington Peaches, an unamed Nectarine, and Bom Chrétien Pears, Moor Parly Figs, and one other; 2nd, Mr. W. Taylor, Rr. to C. Bayor, Esq.. Towkesbury Lodge, Forat Hill.
The best three bunches of Black Hamburgh Grapes came from Mr. T. M. Le Pelley, Valley Vineries, Rusper, very fine indeed. The best three bunches of any other black Grape were Gros Maroc, very finely fiaished, frum Mr. T. Ambroen, gr. to E. Blienirinon, Esq., The Farm, Broadheath. The bent three bunches of white Grapes were suparbly-finished Muscat of Alexandria from Mr. W. Tidy. Grapes were also shom w single bunches.
Melons were plontifully shown, and the tasting process must have been a tedious onc. The two best dishes of Peaches were Dymond and Bellegarde, from Mr. G. Goldsmith, gr. to W. E. Hubbard, Esq., Leonardslee, Horsham; Mr, H. Harris. gr, to Mrs. Eversfiecd, being 2nd. Mr. Goldomith had the bett two dishes of Nectarines in Elrugeand Pine-apple. Mr. Colet gr. to H. F. Wilker, Eeq., Balcombe, was 2nd with Pribct of Wales and Downton. Pears, both dessert and stewing, were very good.
Apples wese in grand form, there were many entries for four dishes of culinary varieties, Mr. Whut Taylor, was lut with suqerb Iruits of Ecklinville, Lord buffield, The Queed, and Warner's King.
Mr. Martir had the beot four diehen of dessert Apples staging Astrachan, Worcoster Pearmain, Queen, and Jrith Peach.
Single dishen were alno shown in plenty; aloo liums, Cherries, Fige, Ece
Among vegetsbles, Rotatos wera numerous, and callectio decidedly good.

Miscellaneoue Collections.-A very fine group of Lities and other plants, slso superb collection of Apples, were from Messra. Balciris \& Sons, Hassocks Nurserics.
Messr. Balchin \& Sons, Hassocks Nurseries.
From Mesers, Vertcr
From Mesars. Veitch \& Sons, Chelsea, came one of the features of the show-a very fiae group of Pitcher Plants, den, and some beautiful Streptocarpus from seed sown in Janmary last. A Gold Medal was awarded.
Mr. J. CHarltor, Tunbridge Wells, had a collection of Dahlias, \&c.; and Mr. Will Taylor some cut Boess.

## BATH

Avadst 28.-The Bath Floral Fete and Band Committee were fortanate in having fiae weather for the bolding of their annual show in the Sydaef Gardens on Wednesday. The show, on the whole compared favourably with its predecensors, and much credit is due to the Hon. Seca., Meners. R. F. Pearron and W. Jeffery, for the excellent arrangements made ander their supervision in the varions sections of the ahow for the ataging of exhibit.

## Plints.

Fucheias are al way given precedence at this show. In the class for nine plants in as many varieties, there were only two lots put up, these being really grand plants in every soum they were about $9 /$ feet high, $4 \frac{1}{3}$ feet through at the bace, and well furnished from bottom to top with healthy foliage, grandly flowered, the varieties represented being Charming Bountiful, Dool's Farourite, Final (darks) ; Arabella, Jastire Improved, Margareta, Harriett Lye, and Mrs. Randel (Hg It Mr. George Tueler, gr, to Major Clarm
With the above; Mr. Marsir was 2nd. up. Mr. James Lye prate in six varieties, Market Latily
 ton, Wilts, was a good 1st
Weoton, was a good 2ad.
In the class for twolve ornamental foliage plants, six. stove and sir greenhouse, Mr. OyPEER was basily 1st, sud well. Mr. CYPHER was also let in the clase for one aped GSo. foliage plant, with a fine Croton Cheisoni. Messr.

Mr. OPPHER had the beat eight plants of ornamentarifilinm

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STANDEN'S MANURE has produced the moat leading prizo-winnesg throughout the kingdom. Prices, in


CORRI \& CO., Ld., London ; and all Seedsmen and Floristo.
 Oruahed Bones and all Highoclase Fertilivers. W. H. BEEFSON, Carbrook fom-
J. WEEKS \& CO., Hortioultaral Builder Gove to Her Majesty. H.R.H. the Prince of Wales, H.M. Goverament, Admisalty Dept., War Dept., Royal Hort. Soc. Royal Botanic soc., Parks and Pablic Buildiags, Ratentoes of Telegraph Address," Hortulanus, London," Telephone, No. 8728 .

# FORTHCOMING SALES by messss．PROTHEROE \＆MORRIS 

CENTRAL AUCTION ROOMS and ESTATE OFFICES， 67 and 68，CHEAPSIDE，E．C．CATALOGUES FOR ALl AUCTIONS SENT FREE BY POST ON APPLICATION，

## EVERY DAY

 DUTCH BULBS．GREAT UNRESERVED SALES．

MESSRS．PROTHEROE AND MORRIS will SELL by AUCTION at their Central Sale Rooms． 67 arke，Cheabside，London，E．C．EVERY DAY，at 12 o＇Clock， CROCUS，NARCISSUS，and other BULBS from Holland，lotted to suit the Trade and Private Buyers． DROPROMAN HYACINTES，LILIUM CANDIDUM，gNOW－ DROPA，On

## Avenue Nursery，Boxley Heath，Kent．

Close to Bexley Heath Station，S．E．R．
FIRST ANNUALTRADE SALE of beautifully－grown PLANTS． By order of Messrs．P．H．and J．Cooper．

MESSRS，PROTHEROE AND MORRIS will SRLL by AUCTION，on the Premises，Avenue Nur－ sery．Berley Heath．Kent，on WEDN RSDAY NEXT，Sept． 18 ，
at 13 o＇Cloul，without Reserve， 8000 ROSES，including Maréchal Niel，Gloire de Dijon，${ }^{8000}$ R．Richardson，Suncling L＇（rêal，Climbing Davoniensis．C．Mermet，Bride，Cheshunt Hybrid，Niphetos，Turneris Crimson Rambler，Climbing Niphetos，Perle des Jardins，Climbing Perle des Jardins；

3500 TREE and other CARNATIONS， conslsting of Germania，Mrs．Reynolds Hole，Mrs．Moore，
Joiffe，Dorothy，Alice Ayers，Uriah Pike，Dule of Fife， Danger，Annie Douglas，and Light and Dark Malmaison．

1100 CLEMATIS
including Belle of Woking，Beauty of Woroenter，Jackmanii， Jackmannii alba，Jackmanii superba，Mrs．George Jackman Alba Magna，Miss Bateman，Lady Boville，Rubella，Duke of Edinburgh，Duchess of Edinburgh，Anderson Henrgi，Lady Londesborough，John Gould Veitch，Lady Caroline Neville，\＆c． $120 \begin{aligned} & \text { Large } \\ & \text { denia } \\ & \text { 18－pots } \\ & \text { intermedia，}\end{aligned}$ 100 Euchatis 1，000 Ampelopsis Veitohii
2,500 Genistas，in 48 －pots 100 Eucharis amazonica，in 10,000 Her Majeaty Pinks

 48－pots pots
And large quantity of Asparagus tenuissima，in 32 pots Aspieninms，Ptaris euneatum，ic
May be viewed．Catalogues had on the Premises；and of che Auctioneers， 67 and 68 ，Cheapside，London，E．C．C．
N．B．－Traing leare Charing Orose Station for Bexley Heath at 9.10 and 11.304 .3 ．，and 12.50 P ．M．

## Isleworth．

IMPORTANT ANNUAL SALE of thoueands of besutifally－
grown young CONIFERS and GOLDEN EUONYMUS， By order of Meners．Chas．Lee \＆Sones，or for Growing－on． By Order of Mesers．Chas．Lee \＆Sori．

$\mathbf{M}^{\text {B }}$ESSRS，PROTHEROE AND MORRIS Wood will SRLL by AUCTION，on the Premises，the the Isleworth Station，L．\＆S．W．＇R．，and 20 minutes wall from Oatorley Park Station，Distriet Railway，on THURSDAY NRXT，September 19，at 12 o＇Clock to the minute，in coneo quence of the large number of lots：－

5000 BRST GOLDEN RUONYMUS，
In splendid oondition and colour，from 9 to 15 inches，
undoubtedly the fineat lot ever offered at this Nursery，
undoubtedly the fineat lot ever offered at this Nursery；
THOUSANDS OF SMALL 8HRUBS
Yor boaes，including Goldea Privet，Aucubas，Yollo 4，000 CONIFERS，
Froma 9 to 24 inches，including Retinosp
 trone 9 to 18 in．；Genista Andreana in pots，Arauoaria excela， LOPGIS YETTCHI，in pots；Specimen Palmanail． 1000 KEMTPES， Tree Ivies，standard Cold，Euonymus，and silver Euonymus， Maréchal Niel．Wmang TEA BOSles，in pots， 6 to 8 ft ．high， Dijon，se． Dijon，
May
be
at 36 ，Hammersmith Road，Woan may be had on the Promises； Agents，and Valuere， 67 and 68 ，Cheapside，Londoners．E．C．Fistate

## The Melbourne Nurseries，Beziey Hoath，Kent

 ANNUAL CLEABANCE SALE，by ordor of Mr．R．Galzow， 16，000 ASPARAGUS PLITMO200 COCOS WRDELLIANA NANA（trae） 200 DRACAENAS of
600 CARPATIONS ．Lizzie MacGower．
600 CUPBEA LEAVEE
160 STATIOR PROVUS
150 AZAKPA MOLLLE．
Tapostant to the Trade．

$\mathbf{M}^{\text {E }}$ESSRES．PROTHEROE AND MORRIS will above，on FREDAY MEXT，September 20 ，at the Preacisen as


## AUDENSHAW，NEAR MANCHESTER

HIGHLY IMPORTANT SALE

CELEBRATED BEECH LAWN COLLECTION

## $E S T A B L I S H E D$ ORCHIDS，

 WITHOUT THE SLIGHTEST RESERVE，BY ORDER OF W．R．LEE，Esq．Who is relinquiehing their cultivation，in consequence of
having Sold the Freehold Estate．

MESSRS．PROTHEROE AND MORRIS are 1 favoured with instructions to SELL the above re－ tember 24 ，and TWO FOLLOWING DAYS，at 12 for half－past 12 o＇Clock precisely each da．
The Collection is justly oelebrated for the large number it
contains of plants of exceptional merit and rarity，the whole contains of plants of exceptional m
being in a most healthy condition．
Among the principal plants，the following mary be specially Cattleya Mendeli，extra fine Cypripedium
＂．Trianee，extra fine Trianæe，extra fine gatense Hardyana

Hardyan

## Trianme，Backhouseana

 ${ }^{\mathrm{t}}$ 霊．R．Loe Leobiata alba Lee＇s variety peciosissima San－ deriana，F．C．C．，rare". Gaakelliana albe
Chocoensis albs
Trianæョ alba
Exoniensia
Exoniensis
Mataiana
3 Coblogyne cristata alba
Oypripedium Leeanum an
G. ${ }^{\text {perbum }}$
Schrodere superbe
Charles Richmas
statterianum
Arthurian
Lathomianum
grande
Wendli
Morganiee Burfordense
Vexillarium superbama
Winifred Hollington,
F.C.C.
${ }^{2}$ " insigne, Sanderee type
argus Moensi
non plus ultra
Weidichianum
Morganiz
Hardya
cenanthu
Leo
2 ". Aylingii giganteum
Leeanum giganteum
Calypso varietie
Masteslianum
Patersonii
Cahuza:
Lancheanu
Bartalí
2 . Kyermannianum
Youngianuma
Arande atratuas
Owenianum
Malyanum
Barberyanum suporbum
Ashburtonii expansum
Godse flianum
Mary Lee
200 ODOYTOGI 2 Lycaste Skinneri alba
900 ODONTOGLOSSUM ALEXANDRE-nearly the whole
have been bought in flower, and only the very best selected ;
Odontoglospuna crispum Mandiana, 0 . Wiloter
Odontoglospum crispum Mandiana, O. Wilckeanum.
Phaius Oweniana
Phaius Cooksonii
Phalrenopsis casta
Pachystoms Thomsoniana,

| Phalemopsis casta | rare |
| :--- | :--- |
| Vanda |  |

Also the GREENEOUSE PLANTS of Sorts．FERNS，the water Piping，chiefly 4－inch，Frames，Barler， 1400 feet of Hot Garden Roller，Mower Pots，Garden Geat，Lawn Mower Thanatophone，and other Sundries．
May be riewed by appointrenent any day prior to the Salen Catalogues mayy be had of Mr．Thomas Billington，the Haead Gardener，on the premises，and of the Auctionerg，Valueth and Estate Agents， 67 \＆88，Cheapside，Iondon，E．C．
N．B．－The Orchids have been oxhibited in London and Man－ Merit，F，－C．C．＇s，Gold Modals，and extra prizee wherever

## Upper Holloway．－Without Reserve．

A GRAND OPPORTUNITY for PURCHASING SPRCTMR PALMS，TREE FERNS，\＆cc．，for Furnibhing Larg IMPORTANT SALE of valuable STOVE＇and GREBSHOUX
EXGIBITION and DECORATIV E PLAMTB

By Order of Messrs．B．S．Whlliams \＆Som， Who，with a view to removing their Nurseries to more cher modious premises in the country，are about to dispow portion of their Freehold Land for building purposes
The following will be found in the Catalogue：－Splen The following will be found in the Catalogue ：－Splonbid
SPECTMEN and HALF－SPECIMEN PLANTS，and also sise selection of GENERAL NURSERY STOCK，including gme house RLododendrons，Acaleas，Cliveias，Camellias，Ciothem Tree Ferns，Palms，Kentias，\＆ce．；also fine apecimen Lapment Pandanus，\＆co，and a large assortment of Cannas Crotons，Araucarias，Amaryllis，Pancratiunas，Anthaike Marantas，Orchids，which will be SOLD by AUCTIOM © Premises，Victoria and Paradise Nurseries，Uppar Elith

MESSRS．PROTHEROE and MORRIS，on MONDAY and TUESDAY NEXT，Sept． 16 and 17 ， 4 May be viiewed any day prior to the Sale．Catalognemy Cheapside．London，E．C． N．B．－Messrs．Williams
plants，and their despatch

Isleworth．－One acre of Cabbage Plants．
IMPORTANT TO MARKET GARDENERS，

$\mathrm{M}^{1}$ESSRS．PROTHEROE and MORRIS are instructed by Messra．John Wilmot．Limited，to ssili by AUCTION，by permission of Mesers．Chas．Lee \＆SN，4t
the Wood Lane Nurseries，Isleworth，on THURSDI MEM， September 19，at half－psat 11 o＇Clock precisely，preceding the sale of Mesers．Lee＇s stock，

1，000，000 CABBAGR PLANTS，
of the celebrated strain．Wilmot＇s Selected，in lots to onithura bayers．The plants are now growing in the field in whio Lane or Syon Lane，Isleworth．They will be offered at pa thousand，and a sample will be on view at the time of nom of 1000 ，and delivery can be taken at Pine House Garima London Road，İleworth，or the vendors will put them on wil at Kew Station．Also 5 strongly built MARKET VANS． These Cabbage Plants are being sold as Mesorr．Wilmothm this quantity in excess of their requiremente．
Maidenhead．－Annual Unreserved Clearance sha Well－grown GREENHOUSE PLANTS，BULBs，al OTher sTOCK，by order ot Mr．R．Owen．

MESSRS．PROTHEROE AND MORRIS will SELL by Altction on the Premises，the Flonily series，Castle Hill，Maidenhead，one mile from Maideam 1 mm o＇Clock， 3000 GREENHOUSE PALMS and Ferns，Dracmens Begonias．Cannas， 500 Cyclamens， 500 Primulas and ather Planta， 1500 Cupreseus．Laure＇s and other Shrubs Rand Climbers．Herbaceous Plants， 500 German Iris， 0,0, ， including 500 Tulips， 3000 N
Iris，Chinese Sacred Liliea，\＆c．
May be viewed．Catalogues had on the premises，and ot Auctioneers， 67 and 68，Cheapaide，London，E．C．

## Tuesday Nert，geptember 17.

CATTLEYA LUDDEMANNIANA ALBA Only one plant of this rare variety is known to us to erich in this country．Cattleya Luddemannianas mumach waik mistaken for its ally，C．speciosissimum，it is a madh white and more free fiowaring Cattleya than the gatter． type（C．L．alba）of this form is more scarce lina collected in flower，and every one is guaranteed true． MESSRS．PROTHEROE AND MORRIS mill include the above in their ORCHID SALE on TUESDSI include the abor
September 17

On view morning of Sale，and Catalognoe had．

## Tuesday Next，Sept。 17.

CATTLEYA GASKELLIANA：
CATTLEYA MENDELI
MESSRS，PROTHEROE AND MORBIS will SELL by $A U C T I O N$ ，at their Central Sale Room 67 and B8，Cheapaide，London，E．C．，on TUESDAY
September 17 ，at half－past $120^{\circ}$ Clock，a fine importation of CATTLEYA MENDELI，
Just received，Ex．S．＂Para．＂The plants which mill offered have been collected from entirely hitherto ansymod localities，and tharefore new and distinct forme me oftere fine Importod Plants of

CATTLEYA GASKELLIANA，
Almo CYCNOCHRS CHLOROCBILON，in flower or bai in CYPRIPEDIUM CHARLESWORTHI，selected ranieriee flower：DRNDHOBIUM PHALIENOPSIS SCHand of Hemi the new Kina－Balu D．SPECIOSLSSIMUM $A$ Wa July 23），and the rare Leelia－like SCHOMa rowing p the new and beautiful
a Locasia LOWI＂GRANDIS，＂
which gained a
Munutt 27．Hast，

## Friday, September 20, 1896

SALE OF ORCHIDS

IIESSRS. PROTHEROE and MORRIS have received instructions from Messrs. F. Sander \& September 20, at half-past $120^{\circ}$ Clock, at their Central Auction RMoms, br and 68 . Cheapside. London, E.C., a quantity of CatTleya eldorado splexiens ia fine condition. The rose, orange, and purple blowmy of this splendid species
render it very attractive and $\in f i$ fective. There can be but render it very attractive and effective. There can be but
little doubt but that the varieties VIBGINALIS, CARNEA. CONSPICUA OBNATA, \&c., will flower from among these plants.

Grammatophyllum multiflobum tigrinum in fine order. This grand Orchid produces its beautiful showy flowers in large racemes, often to the number of sixty or Eeventy. Also LeELIA MAJALIS, the "Flor de Mayo" of
the Mexicans. This noble Orchid ranke among the finest of the Mexicans. This noble Orchid ranke among the finest of all. Its lapge and lovely flowers are always attractive Also
CATTLEYA CITRINA. LELIA LUCASIANA, DENDROBIUM STATTERIANUM, an easily-grown beautiful Dendrobe most useful for Cut Flower work, \&o

CYpRIPEDIUM BELLATULUM,
A fine batch. Many very fine plante are included. Also deep rose and rich mazenta-crimson blossoms. ODONTO GLOSSUM LEVEE ONCIDIUM TINGURCULATUM. DENDROBIUM PHALENOPNIS SCHRODRRIANIIM, CYPRIPEDIUM DAYANUM, DENDROBIUM NOBILE, Lane Tang Har. In addition fine bulbs BESSERA ELEGANS, and HEMANTHUS KALBREYERII will be offered. The bulbs
are in fine order.
Full descriptions, \&c.. are given in the Catalogue.

Tuesday Next.
II Esins. Plothekoe and MUKRIS will September 17. a good Collection of NEWLY-IMPORTED
ORCHID isna, among which is the Grandest Specimen in Europe Aërides Sanderianuma, Phalæenopsis Schilleriana. Cypripedium Stonei, among which are some good forms end distinct plants; Aerides Lewrencere, Ancectochilum Dawsonianum, Dendrobium Deareis, specially good sound stuff: Dendrovium
bikibbum, Grammotophyllum Measuresianum and speciosum, bicibbum, Grammotophyllum Measuresianum and speciosum Aerides, probably new, from new district

## WEDNESDAY NEXT

AN IMPORTANT TRADE SALE OF DUTCH BULBS.
a SPECIAL COLLEOTION of FINE HYAOINTHS, ideluding many of the newest and best sorts, in splendid order, from a trustworthy grower
obtain first-class Bulbs.
Alarge and varied assortment of
CHOICE TULIPS, Rare and Beautiful NARCIS SNOWDROPS, IRIS. COLCHICUMS, SCILLAS, several lilium candidum, l. Harrisi, and Narcissus for Early Forcing, from France.
MR. J. C. STEVENS will SELL the above 1 by AUCTION. at his Great Roonas, 38, King Street, half-past 12 o'Clock precisely.


MONARCH PLUM.:

ABSOLUTELY WITHOUTRESERVE MESSRS. PROTHEROE MORRIS Have received instructions
\#r. W. HORNE, PERRY CLIfFE,
Near Rochester, Keat,
To hold the
NINTH ANNUAL

## GHEAT

FRUITTREESALE

Wednesday, Oct. 23, 1895, At $110^{\circ}$ Clock.

100,000 FRUIT TREES, 2,500 of the new late Plum, Monarch, are included, 1 to 3 years; several thousands of the first early dessert Apple, Beauty of Bath; about 30,000 Apples, Pears, Plums, and Cherries; 25:000 Baldwin Black Currant, 15,000 Gooseberries and Red Currants, 25,000 2-year Connover's Colossal Asparagus, 25,000 of NEW EARLY STRAWBEBRY, LAXTON'S ROYAL SOVEREIGN ; 20,000 Hop Sets, 50,000 spring Cabbage plants, 50,000 Cos Lettuce plants, 50,000 Drumhead and Thousand-Head Cabbage, \&o.

Catalogues may be had of the Auctioneers, 67, Cheapside, London.

## SALES By AUCTION.

 DUTCH BULBS - DUTCH BULBS.galen nearly every day, in Larce and small Lots, to sust all Buyara.
MR.J.C. STEVENS will SELL by AUCron, at his Great Roomm, 38, King Street. Covent Garden, nearly every dav, at half-paet 12 o'Clock, first-clase
cons gaments of Choice HYACINTHS, TULIPS. CBOCUSES, NARCTSSUS, and other BULBS arriving daily from wellknown farms in Holland, in the finent posable oondition.

On view morning of sale, and Catalogues had.
Manchoster. - Important Sale of 800 Orchids, including many rare and choloe sorts, such matettoya M. Blunti,
Var.). Ke Gankellians albe irue. O. Wagnerli, bent form C. Skianari, Leelia elegans \#urnerii, dark form, 8tand Hall var.; L. elegans allas true. I. purpurata. I. Gouldiana true, L. abbua sulphirra, i,. ancepo sabderana,
Pleione procoz tenera. I? Wallichii and lagemara. Cuelogyne cristata, Chatsworth var, ©, mazima, Dendrobium nobile robilius, Wrigley's var. : H. Cuoksoni, Hardy's var. ; Odontoglosmum erinpum,
var. award of merit Temple Show, 1841; Cypripedium Schottianum, C. Leeanum superbum. and unflowered scedlings, Yanda cuerulea, Mormoder, \&c. YESSRS. ARTINGSTALL and HIND respectfully notify the receipt of instructions from H. Shaw, Kar.. J.P., Stamford House, Ashton-under-Lyne, who on THURSDAY. September 19. 18\%.), at their Horticultural Sale Rooms. No. 45, Princess Street, Mancbenter, a Valuable Collection of ORCBIDACEOUS PLANTS. On view day urior. For further particulars apply to the Auctioneers, Manchester. West End Auction Mart, Bath. DUTOH BULBS, lotted to suit Trade and other large Buyere :

MTR. W. T. D. SUTTON will SELL the above by AUCTION, on FRIDAY NEXT, September 20, 1885 at barf-past 12 morn
n view morning of Sale, and Catalogues had.

## AUCTION SALE OF NURSERY STOCK,

At Kittybrewster Nursery, Aberdeen,
On THURSDAY, SEPTEMBER 28 , at $11 o^{\prime}$ Clock.
The following, amongst other lots, will be exposed for Sale
2,000,000 1-year SEEDLING LARCH.
500, 0002 2. year SEEDLING LARCH.
700,0001 -year 1 -year LARCH.
4000002 -year 2 -year SCOTS FIR. 400,0002 -year 2 -year SCOTS FIR.
350,000 -year 1 -year SCOTS FIR. And a large assortment of GOOSEBEREY BUSHES, HARDCARDNO \& DARLING

[^18]
## HIGHLY IMPORTANT ANNUAL CLEARANCE SALE.

## By order of Mr . R. GÜLZOW,

Who is obliged to dispose of a portion of his Stook for want of space, as every season several houses are devoted entirely to the foroing of Lily of the Valley in enormons quantities.

## 16,000 ASPARAGUS PLUMOSUS NANUS.

This is the true stock, which differs from the original type in not being of such a climbing habit of growth. It is very useful for all kinds of decoration, and partioularly well adapted for catting purposes, and is always in great demand.

500 DRAC/ENAS (COLOURED).
Fine healthy plante, to 4 feet high.

## 200 COCOS WEDELLIANA.

In the best possible condition.

Also STATICE PROFUSA, CUPHEA LLAVEA, CARNATION LIZAIE MACGOWAN, EURYA LATIFOLIA, BELLA, LITTLE GEA ; FICUS ELASTICA VARIEGATA, \&o, \&o.

MESSRS. PROTHEROE and MORRIS will SELL the above by AUCTION, on the Premises, the Melbourue Nurseries, Bexley Heath, Kent, olose to Bexley Heath Station, and Bexley Station, S.E.R., on FRIDAY NEXT, September 20, at half-past 12 o'Clock. May be viewed any day prior to the Sale. Catalogaes may be had at the Nurseries, and of the Auctioneers, 67 and 68, Cheapaide, E.C.
N.B.-A conveyance will meet the trains at Bexley Heath Station, to take up intending Parohasers to the Nurseries,

FOR SALE, a small valuable long leasehold Greenhouses, well stocked; two Vineries, Cucumber-house. Planthouses, five-roomed Cottage. Low Ground Reat. Lease
 ${ }^{\text {masin road. Al }}$ Tooting, Surrey.
EALING. - To FLORISTS, GROWERS, E JobBing gardeners. Excellent Premises, About $\frac{3}{\text { s of of an acre of good garden ground (formerly Castle Bar }}$ Nursery), filled with valuable truit trees; new, epacious sixNursery), filled with valuable fruit trees; new, gpaciovs six-
roomed house attached, repairing leaee. First-clase neighbourhood. Rent, 240 per annum. - Apply
hood. Rent, \&íper annum.-Apply 4 , Ripley Villas, Castle Bar Road, Ealing,
SOUTHPORT.-Gentleman's 13 -roomed Detached HOUSE, all modern conveniences, with Vine ries, 120 by 18 containing about 200 young Canes in full
hesring; 6 other Glasshouses, Frames, \&c.; Top and Bottomheat, Gardens, and Stables. Sold cheap. Left owing to
illhealth. Apply, HATCH, South ort; or BA1EMAN

To Nurserymen and Florists commencing business. HAMPTON-ON-THAMES, on The Marling Coam, Parx fhe favourite neighbourhood for Growerb, FREEHOLD LAND for SALE, on easy system of payment. Excellent sites for residences. - For full particulara apply to Mr. FREDK. G. HUGHES (Surveyor), the Estate Office, Hampton-on-Thames. OARDEN TO LET, south aspect, 2 acres, on 10 Frames, realized this year; good water-supply, from which commodation for single man. Rent e3z yearly; if taken at once one quarter's rent remitted.

GOOD GARDEN TO LET, situated in Wales, within short distance to three fashionable watering-places.

SPECIAL OFFER TO CLEAR.-Strawberry Royal Sovereign, Strong Ground Runners, 70 s sper 1000 Extra Strong Plants, knocked out of 3-inch pots, 128, 6d.
100
Cash with 100 Cash with order.

## DENDROBIUM PHALENOPSIS SCHRODERIANA.

M ESSRS. HEATH AND SON'S Collection are now in full flower. Specimen bloome on application. trong plante from 42s. per dozen.

Royal Ezotic Nurseries, Cheltenham.
BARR'S ENGLISH DAFFODILS. - The Wescriptive Catalogue no weady, sent free on application. Descriptive List, ready September 1.
BARR'S AUTUMN-FLOW ERING CROCUSES, MEADOWSAFFRONS, CYOLAMEN, SOILLAS, SNOWFLAKES, \& List free on application.
BARR's SEEDS for Present Sowing.-Catalogue on application. BARB $\triangle N D$ SON, 12, King Street, Covent Garden, London.
FERNS AND DECORATIVE PLANTS - house, 30 best selling sorts, 183 . 100 ; ditto large in $48^{\prime} \mathrm{s}$ Greenselling sorts, 6 s. doz; ; strong seedlings, $6 \mathrm{~s} .100,50 \mathrm{~s} .1000 ;$ Adiantum cuneatum, in 48's, for cutting, 6 s. and 8 s . dox. : "ditto, for making large plante quiclly, 16s, and 20s. 100; Aralias, 10s. 100: Cyperus, Aralias, Grevilieas, Geraniums, Solanums, in $48^{\circ} \mathrm{s}, 6 \mathrm{~s}$. doz. : Heliotrope, Fuchsias. Oampapulas, Marguerites, Solanau 8, Erica gracilis, in Bloom, in 48's, 8s. doz, Ficus,
Palmus, Dracenas, Crotong, Bouvardias, 12s, doz, Listr free Hacked free. Cash with order. - J. SMITH, Londen Fern Nurseries, Loughborough Junctiox. London, S.W.

STRAWBERRY
PLANTS.

HAND-LAID RUNNERS and PLANTS in Pots of the beat varietiea, including Royal qovequeen, Kern's Seedling. Vicomateane H. de Thuxy, Dr, Hoge, Yoble, and
D.seriptite Catalague on Application.

DICKSONS NURSERIES, CHESTER.

## fERNS! FEENS!!

50,000 Prime Staff, in $2 \frac{1}{2}$-inch pots-PTERIS CRISTATA, NOBILIS, MAJUR, TREMULA, and other
Good, clean, and bushy staff, in $48^{\prime} s$, at $4 \mathrm{~s}, 6 \mathrm{~d}$. per dozen.
A1i onlers earefolly abe for eash with order only,

> d promptly in invited by

## B. PRIMROSE,

ST. JOHN'S PARK, BLACKHEATH, S.E.

## WEBBS EARLY BULBS. <br> THE FINEST ROOTS OF THE SEASON.

 ROMAN HYACINTHS| Early White, extra large bulb |  |  |
| :---: | :---: | :---: |
| Ditto | ditto | $\ldots$ |
| Ditto | fine bulbs | $\ldots$ |
| Ditto | ditto | $\ldots$ |
| Ditto | smaller bulbs | $\ldots$ |
| Ditto | ditto | $\ldots$ |

> 28. Od. per dor $.15 \% .0 \mathrm{~d}$. per 100 18.9 d. per doz. .128 .0 d . per 100 18.6 d . per do. 10 s .0 d . per 100.

POLYANTHUS NARCISSUS
$\begin{aligned} & \text { Double Roman } \\ & \text { Paper White }\end{aligned} \quad . . . \quad . . .3 \mathrm{3d}$, each, 18. 6d. per doz
DUC VAN THOL TULIPS
SINGLE, scarlet
DOUBLE, scarlet and yellow, 9d. per doz. 68 . per 100

## Webbs' bulb catalocue, <br> Beautifully Illustrated, Post-free, 6d.

Seedsmen by Royal Warrants to H.M. the Queen
WORDSLEY, STOURBRIDGE.
Fororchids and gardeners 1 to Grow them, apply to SANDER's, St. Albans. The finest
stock of Orchids in che World.- 30 minutes from St. Pancras.
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## Gardencers Clironidle.

SATURDAT, SEPTEMBER 14, 1895.

## BUTESHIRE.

BUTESHIRE, with its ancient capital of B Rothesay," the acknowledged Queen of Scottish Watering and Wintering plaoes," oontains muoh to interest the hortioulturist. Rothesay, with its beantiful bay, forming a semiellipse $1 \frac{1}{2}$ mile across the mouth, is undoubtedly one of the finest and best sheltered bays on the west coast of Sootland. Five centuries ago its palace was built in front of its even then old oastle, and it had for its first visitors the Kings of Scotiand, who, during the summer months, and also sometimes daring the winter season, resorted to it for the parpose of enjoying its delightful climate, its translucent waters, and its beantiful sounery. There is no reoord of the building of the oastle, which still surfives in the square in the oeutre of the town. The first mention of it in history is in 1228. It must have passed through many vicissitudes in troublous times; it was seized by Cromwell's troops when they invaded Sootland, and on leaving it they destroyed a portion of the walls. It was subsequently taken by the Earl of Argyll in 1685, and afterwsrds burned by one of the Earl's brothers. For some time previous to that the castle had been ocoupied by the Marquis of Bute's ancestors, who, after the burning, and till the erection of Mount Stuart, his lordship'a Buteshire residenoe, five miles away, resided in a house in the High Street.

The meteorologist records that the range of the thermometer in Rothesay is about $18^{\circ}$ fewer than the average of Sootland, being $15^{\circ}$ warmer in winter, and $5^{\circ}$ cooler in summer. This is prinoipally caused by the faot that Bate consists of comparative low land, surrounded with seawater, which latter is a great deal warmer than the atmosphere in winter, and somewhat cooler in summer. The influence of the warm Galf Stream in winter is remarkably exemplified by the infrequency and mildness of frosts, the rarity of snowstorms, and the quickness with which snow melts when it does fall. Owing to the land being so little elevated, muoh less rain falls here than in the surrounding parts of Scotland, The high hills of Cowal, Ayrshire, and of Arran on every side break the rain clouds, the content of whioh, in many oases, are discharged on them whilst scarcely a drop falls in Bute. For the same reason, this favoured island haa singular immunity from thunderstorms-the thunderclouds being attracted or broken by the high hills surrounding it. The absence of fogs is remarkable-attributable, it is thought, to the Buteshire farms being well drained, and that there is no tendency for an excess of damp to remain in the land or in the atmosphere.

Pleasant walks abound about Rothesay, and throughout the island they form some of the chief attractions of the place. The Marquis of Bute has most liberally construoted paths
through the woods on the heights above the town, which form delightfully shaded and sheltered walks, affording oharming glimpses of the bay and surrounding hills. Here oome the townspeople in the evenings of week-days daring summer, and it is a favourite walk on the Sabbath evening after kirk. The English visitor is strack with the quiet peacefulness of the Sunday in Rothesay, no vehiole plying for hire on land, and no boat upon the sea. Every publio-house is olosed, and no element of discord is heard in the public streets. What would inoite to a revolution in London, is here acquiesced in, and more-appreoiated.
The horticultaral features of Rothesay are many and intereating. Various shrubs and plants, regarded as tender in colder parts, are hardy during the winter, though violent atorm in November last, accompanied by acathing winds, and followed by the keen frost in February, left their mark on many thing, the Euonymus, in particular, having become very brown. Many fine trees are to be found here, but near the coast, they show the effect of roagh winds. Evergreens are plentiful, and they give the line of the shore a farnished appearance at midwinter. The neighbourhood of Rothenay is famoun for the fine quality of the Strawberrien and Gooneberrien grown there; considerably over 100 acres of land being devoted to the growth of the former fruit. The overflow after supplying the want of Rothesay, find a aale at Glasgow and elsewhere. Flowers are grown extensively in the gardens abutting upon the Meadow Walk. The road between the gardens has on either aide lofty and wide-apreading trees. Two magnificent Ash trees of great age, which from time immemorial adorned this walk, were known as "Adam" and "Eve." "Adam" has succumbed to old age, but his consort, "Eve," is still quite vigorous. There are some very fine examplen of Ash in the neighbourhood of Rotheany.
At Soathbank, about 3 milea from the town, resides William Spencer, Enq, who ponseasen an admirably-furniehed place, where there are several glass erections, a select collection of Orchids, Ferns, and other foliaged planta; indeed, all that one could denire to see asnociated with auch a charming renidence. In the ground are attractive beds of Begonia and other flowering plants. Evergthing is in excellent order. The gardener is Mr. James Lornie, who e work command our praise. A few milen farther the visitor leaven the shore, and on the higher ground comes to the entrance to Mount Stuart, the reat of the Marquir of Bate, the owner of mont of the land in Bateshire. The manaion stands in the centre of a richly-wooded spot; it is a new erection, a handsome Gothic atructure occapying the site of the old manaion which, with all ita art treamares and beartifal and coatly decorations, was dentroyed by a fire which took place in 1876, but fortunately, many valuable pictares-mont of them family portraitewere anved.
The grounds about the manaion are very extenaive and of great beenuty; at thair lower portion, they terminate in a bank or cliff near the nea, Two avenues, one of Limen and the other of Beech, are wonderfal arboreal features. At certain pointe, lovely and picturetque walks and drives radiate from a centre, opening up charming vistas. There muat be miles of roadway and pathway under the trees, and as every point some wealth of natural beaty is perceived. The skill of the landucape gardener has assisted Nature in shaping the lines of woody ground of indencribable charm. The visitor feels that in the hande of Mr. Michael Heron, the gardener at Mount Stuart, the grounds and gardens are in anfo keeping. Kitchen and frait gardens, with planthouser, attest to his derotion to his daties.
Not far from Rothesay, indeed on the outekirta of the towd, resides Mr. James Dobbie, now in his to venty-eighth jear, hale and hearty, and atill devoted to his garden, spending the evening of his life in comfort and happinem. Ho lifted many vegetables, Beet, Tarnips, and Leeka in particular, and many
flowers from low to high levele of quality; and he considern his work is not yet completed. While filling municipal office, he wan an enthusiastic florist, growing Pansies, Hollyhockn, \&ce., and joining in the fray on the exhibition stage. His enthuaiam led him to resign his ordinary avocation and start a florint and seed buainess in Rothesay, now finding rapid expansion in the hand of his successors Mesurs. Cuthbertson, Birnie, and Fyfe. The buniness of Dobbie \& Co. has become an important induatry in Rothenay, and they are among the largest employert of labour. Mr. Alex. Lister, a famoun Pansy grower and exhibitor, has a nursery here; he is a raiser of very fine fancy varietien, a grower and exhibitor of Dahlias, Carnations, \&cc. Near him is Mr. Michael Cathbertson, who has an extensive collection of hardy plants, and like his neighbouru, makes a specialty of Pansies and Violas. And when the vinitor in at Rothesay, it in impossible he should forego a steamboat trip through the renowned Kylew of Bute. On his way, he calle at Tigh-na-bruaich, a Gaelic word aignifying "the house of the brae," and here, near the shore, Mr. Andrew Irvine, another famous Panay grower, has a nurnery. R.D.

## New or Noteworthy Plants.

## DENDROBIUM SANGUINEUM, Rolfe, $n$ s $s p$.*

A crimson - flowered Dendrobium is certainly something novel. No such apecies has before appeared in cultivation, so far an I have been able to difcover, and if nuch an one hav ever been dencribed, I have failed to find it. It existence, however, if now proved, and the merit of its diacovery belongs to Mesmrs. Hagh Low \& Co., of the Clapton Narsery, where the first flower expanded a few daye ago. The plant hat been submitted to Kew for determination, and has received the above name, in allavion to ite unauasl and brilliant colour. It belonga to the mection Clavipes, and has slender atems about 3 feet long, with a fasiform thickened part, some 3 to 4 inches long, and with eight ridgem near the base, in which respect it resembles $D$. crumenatum, Swartz. The flowern are olitary in the upper axils, and about an inch long, both the eepala and the broader obovate petals being crimon, except at the base in front, where they are marbled and spotted with the same colour on a whitish ground, The lip is emall, much andulate in front, and whitish, with some purple lines and spotn. It was introduced from Labuan, North Borneo, and will probably require aimilar treatment to other Maiayan apecies. Unfortunately, the flowers do not last very long, a pecaliarity common to neveral apecien of the groap; but if the plant should prove easy to cultivate, and as floriferous as D. crumenatum, a good plant would be a very atriking object. The llower produced is the firat one after importation. In any caes, it is a very interenting discovery, on account of its unique colour, R. A. Rolfe.

## Orohid Notes and Gleanings.

## ODONTOGLOSSUM URO-SKINNERI, CRAWSHAY'S VAR

Althouge imported many years ago, Odontoglosam Uro-Skinneri is a rare plant, and fine varieties of it are alway noteworthy. One of the

[^19] high, with a thickened fusiform part near the base, 3 to 4 inche long, and with eight ridges. Leaves (very young) linene oblong. Flowers solitary in the upper axils. poung) linearlong. Sepals lanceolate-oblong, subobtuse, Pedicels 5 lines dorsal one 11 lines long, lateral ones $u$ lines 3 lines broad; spatulate-obovate, subobtuse, 11 lines lines long. Petals Lip 3-lobed, 8 lines long, 11 lines long, 5 lines broad. erect; front-lobe lines long, $1 \frac{1}{3}$ lines broad; videlobem small, erect; front-lobe oblong, obtuse, undulate ; dise with thicrened median line. Mentum mecate-oblong, 3 lines long, Oolumn tout, 1 line long. Sepals and petals crimson in front pas ing towards the base to whitish, spotted and marbled with crimson; wholly crimson behind. Lip whitish, with the with lined with purple, and the lines termingting, with the front Epote at the margin; callus yellow. Native of Labusn, N.
largest and bent is in the pomemion of $D_{6} B$ Crawahay, Evq., at Ronefield, Sevenoaka. From the tip of the upper sepal to the apex of the lip the flome measures $2 \frac{7}{3}$ inches; the petals are $\frac{3}{4}$ inch wida
 petals are pale greenish-white, evenly spotted mith parplish-brown, the lower sepala being aleo flated with purple. The lip is white, densely apotted nith light rosy-lilac. Striking features in the twn beyond its aize are the breadth and even arroge ment of the segments, and the uniformity of the apotting.
Cypriprditum Kimbailianum, Hort. Sander, Gmy, it American Gardening.
With reference to the atatement made by the milar in the Orchid Review (Gardeners' Chronicle, Separ/; p. 266), in explanation of his error reapectiog tib plant, to the effect that there are two planturad Cypripediam Kimballianum, it would be wellith gave reference to the work in which the firt one, widd he calls C. prestans, was published. In his ovighal note, he refers to C. prestans Kimballianum, wihe is properly figured and noted in the Limamin vol, vi, and it appears to be atraining mattan to drop the specific name, and thus set up a bogey in order to have the honour of knocking it dom.
Cypripedium Kimballianum, as illastrated in th Gardeners' Chronicle, formed the text of the nowin the Orchid Review, and there was no excua tum bringing in the other apecies mentioned, the ments sbout which are ancient hintory to. Ortill growers.
The voluntary dencription of C. Kimballinm, too, given (Gardeners' Chronicle, Sept. 7, 1895), wu equally unnecenary. The plant was propert described by Mr. Grey in American Gardemin, wid courtery demands that the work of our Amerine cousin thould be recognised. J. $O^{\prime} B$.

## FRANCE.

M. Gaston Cmandon de Berailues in wellhem as a lover of plante, especially of Orchids and Ciso diums. His fine garden is well caltivated by lii gardener, M. Dauvinat. Going through the bownt we noticed a new eeedling Caladium named Trionph d'Epernay. This variety is of dwarf and complat habit, with atout petioles, and leaves of a fine dullion colour; it will soon become popular, and be ued in the same purposes as are C. minus erabescens and $C$, argyriten. We were sarprised to see two planta if Agave americans in fall bloom, in tubs 5 feet nquiln The flower-apiken messure a foot in diameter th the baee, and are nearly 8 yarde in height, benill numerous branchen, with heary umbels of gellor flowers, the whole plant auggesting an imman chandelier, was an unueual sight.

At Liemonse's Nursery, at Nancy, which eatist lishment is as well known in England as on the continent, we admired a good collection of Cannew is bloom, snd a splendid lot of Phlox, carefally y melecke for soed, the collection of dwarf white and rons nesip ties were excellent. We cannot say too much abont the Gladioluu. The plante are only beginning to fonf thousands of spikee will soon be open, nearly all wo blooms are extremely large, covering the apike, ald the coloars are brilliant and clear. Some blaen all light purple varietien denerve apeciel mention bo Enormous quantities of Montbretia are here to seen, amongat them many good new weedlingr.
Another auccessful horticalturist is M. Caotuen Nancy. His tuberous Begonias have for nome tive proved their auperiority at many exhibitiont, their caltivation is acceenfal owing to the call taken in selecting and saving good varietios inche Flowers, aingle and double, messuring 5 or 6 inch across are not uncommon, and the erect habin olut plante double their value. One interesting was noticed in this nuraery, a hybrid Streptocirn S. Wendlandii $\times$ S. controvercas, the plane wo to bo yet named, bat will woon be described, it neeme the free-flowering and quick growing. Wo hope, rbe deacribing this hybrid, to give alno $s$ photograp reproduction of it.

A well-known firm is that of Baltet frères, at Troyen. There we admired a aplendid collection of Pear and Apple treen, ad were particularly interested with the new process used for the cultivation of Pear trees in the chalky oil of Chsmpagne. Young plants of Crategua Oxyacantha are obtained from seed; this apecies will thrive in any calcareous soil even, if this is not deep. When these plants are establiahed, Cratwgus Carrierei is grafted upon them, and the next year grafts of good varieties of Pears are inserted on the Cratmgna Carrièrei. We saw the treen; mome Pears were on them, though growing in sach noil as Pear trees would never thrive npon. Polygonam aschalinense is here extensively grown; it has oven been utilised for haman food, and M. Baltet told me that the flavour of boiled Polygonum was much like that of Spinach.
Oar visit to Troyes took place on Jaly 28 last, and We were attonished to see on the walle some beautiful

Clapton, had Dendrobiam pecioninimam, but the flowers were not in aufficiently good order to be appreciated.
At the Vegetable Committer a fine batch of twenty-five distinct varieties of Cacumber wan etaged by M. Vilmorin, and the floral committee voted a Firat-class Certificate to Tillandaia Sieboldiana, a beatifal and rare Mexican plant, little known in caltivation, and characterised by vermilion-red floral bracts, perpendicular to the epike, stager by M. Traffat of Veraillem. George Truffaut.

## A FINE VINE.

The following detaile respecting a Black Hamburgh Vine in these gardens may be of interent to some of your reader ( $\mathrm{G} . \mathrm{g} .52$ ). The Vine is twenty-flve jears old, and atand in the centre of a house 54 feet long by 13 feet wide, which it completely covers


Fig. 52.- ving at hacethorn hall, lincoln.
ripe Nectarinen. We moon learned that the fruit was a quite new variety raired from seed by Mr. Lacien Baltet, who has given it him own name. Thia Nectarine, which is of a fine deep zolour, is a seedling of the Prfecoce of Croncela, which directly resulted from a seedling of Amsden Peach. The carious fact no often commented apon of a Nectarine being raised from a Peach atone was, in thic case, abolutely borce out. We found the new Nectarine, L. Baltet, of delicious flavour, and ao also thought the members of the Frait Committea at the last meeting of the Society in Paria.

Lalio-Cattliya Andrgana, \&c.-A very good plant, thown to the Orchid Commertes (Paris) lately, was a hybrid between Cattleys bicolor and Lxe'ia elegang. This Lxlio-Cattleya, named L.* C. Andreana by the raiser, M. Maron, gardener at M. L. Farnier's, Marseillea, is quite a diatinct variety. The flower is rather larger than that of C. bicolor; the division are of a creamy-rose colour, the lip presenting an unuaally long middle lobe of a dall magents colour. The upright paoudo-bulb is cylindrical, with two leaver; the variety seems freegrowing; it was first nows in 1890 . Mr. Low, of

It apring from aingle upright atem, the girth of which is 1 foot, and which mends out two horizontal branches in opposite directions. From these descend ten maller branches, which follow the slope of the roof. The Vine is alway very clean and healthy, and is now bearing 390 bunches of well-coloured Grapen. I thotuld be interented to know if there are many larger Vines in private gardens. E, W. Cracroft, Hackthorn Hall, Lincoln.

## NOTES ON MORELLO CHERRY CULTURE.

Seldom is the crop of Morello Cherries in a private garden larger than necestary, there being so many ways in which the frait can be uned. We do not une the fruit for dessert much in this conntry, bat I believe it is so used in mouthern Earope, and also in Britain if the fruit has been grown under glas. The treen are, however, more often planted at the foot of walls with northera aapect than eleewhere, yet when they are grown under clear glame, exposed to full mun, the fruit is much changed in Gavour. I tbink it was Mr, Knight (when at Floors

Cartle Gardens), who wrote of them, testifying to their excellence when caltivated under glam. I have grown them only to a limited extent in pote in orchard-houses, but could easily appreciate the fine flavour which the frait would attain when grown in warmth and given abandance of air. Even on a south wall, the improvement of flavour in great compared with that of fruit from a northerly aspect. In aize the Morello Cherries I have seen in Wiltahire and around Bath were finer than I have seen anywhere. In a Scottish town Morello Cherries have been produced in quantity on an old tree whose root were firmly embodded in soil under the pavement, and where moisture mut have reached the roots with difficalty. These Cherry trees never required praning, though in hot, dry quarters, during the summer month, the foliage alway remained healthy, and the frait was very dark in colour.

On a south-east wall, where the soil about the roots of Morello Cherries is composed of atrong loam and lime-rabbish, crammed an tightly together an ponible, and where a road with much traffic panes over the border, there are beavy crops of Morello Cherrie every year, and during the prement season the crop required to be thinned. It is of great moment to caltivate the trees so that little pruning is neceseary, and the natural epars and short growth then formed render the trees safe from canker. On a north wall, and one due east, we do not alway get heavy crops, and the fruit is more acid than on the trees facing south east. This year many of the treen, for want of time (by reason of the continuous late front), were left antied, and with little praning. These mostly set heavy crope of fruit; but we never at any time bad to contend so much with grabs, hand-picking was done, and this was followed up by application of suft mosy-water, in which was mixed hellebore-powder. While in north aspects in Scotland I should be inclined to train Morello Cberrie close to walls, in ponitions where an had full power, I should prefer allowing the wood to grow outward somewbat, and by attention to keeping the root in very firm coil, with plenty of lime in it, the growthe would be short and fruitful. 1 An object-lewion on the good cultare of Morello Cherries I once had at the Royal Gardens, Windeor, many yeara ago, when on a vinit to the late Mr. Rose. The joung-bearing wood was short, and allowed to hang from main branche antouched. The crop of fruit was immente. Though good Morello Cherriea can be grown in quantity on atandard bush-trees in mome place, those fruited on much in Scotland are very poor. M. Temple, Carrom, N.B.

## Plant Notes.

## IMPROVED VARIETIES OF CANNA.

Two housen full of thene plante at the Royal Hor ticultural Society's Gardenm, Chiswick, are now looking remarkably well. They combine fine ornamental foliage with blomome, which rival Gladioli in their bearty, and they last in good condition much longer than the latter. These plante require liberal treatment, and a certain amount of protection in order to flower them perfectly in this country. If nothing ele was to be seen at these gardens, the Cannas alone would be worth a visit; but I noted many other interenting and instructive thinge in the brief time at my disponal.

## Cumatis Davionesa.

This plant in at preaent flowering well in the bordera at the Royal Horticultural Society' Gardens, Chiswick, and it sweet-scented lavender-coloured fiowert compel one'a attention. It appears to require s warm climate, as it doen not sacceed half yo well with me at Belvoir, although it is growing in a sheltered ponition. Such a beautiful plant in well worthy of a place under glass, where apace admita of it, and if specimen plants were in fashion, it would prove a good thing for exhibition purposes. W. H. Divert, Belvoir Castle Gardene, Grantham.

Pancratidm canariense.
Thone who hate before them the recently-inaued part of the Joursal of the Royal Horticultural Society, in which is an extremely interesting and important account of "the Plants and Gardens of the Canary Islands," by Dr. Morris, the Assiatant-Director at Kew, may be intarested to know that Pancratiam canariense is now flowering in the Botanic Gardens at Cambridge. It is one of the three species of balbons plants said to be specially noteworthy, the other two being kinds of Romulea. As a garden plant it is decidedly pretty, but without much showiness. It is quite a distinct plant, moat nearly allied, perhape, to P. maritimum, though amaller in all its parta, except for the longer wcape, and in common with all the other species that has white flowert. In a 6 -inch pot we have one lowering balb with everal others, which bear ensiform glancoun leaves about 14 inches long. The scapo exceeds 2 feet, and apports an ambel of a dozen llowers, two or three of which open at the same time. The perianth segments are narrow, and apread about $2 \frac{1}{4}$ inches; the staminal cap is broadly campanulate, with a diameter of $1 \frac{1}{3}$ inches. This apecimen is placed in an intermediate-house, and flourishes with asaal treatment. $R$. J. $L$.

## Browallia speciosa majob.

This charming greenhouse plant was seen in excellent character at the recent exhibition of the Trowbridge Horticaltaral Society. The foliage and flowers alike are much larger, bolder, and more striking in appearance than those of the well-known form of $B$. elata. It appears to be very free, and the deep hue of blae in the flower makes it valuable for associating with other plants in the decoration of the greenhouse. It is one of the novelties introduced by Menra. F. Sander \& Co, and it gained an Award of Merit from the Royal Horticaltaral Society in 1894. It only requires to be known in order to be widely grown.

Praargonitia (Drcorative) Madame Chatues Kommi.
The value of this variety for cutting parposes is shown by the fact that Mr. W. Richardeon, the manager at Mesara. Balchin \& Sons' nuraeries at Hassocke, has cat during the space of twenty weeks as many as 12,050 trasses from 230 plante, and they are still fall of budf. Mr. Richardson considers it to be the finest of the white-flowered decorative varieties, and in his experience there in none other so free-flowering. That is one reason why it is grown so largely at the Hassocki narnery; another is, that it is in great demand.

## Fuchsia coccinea.

Whether or no this represent the original specien which Mr. Jamen Lee parchased at Wapping so many yeara ago I cannot way with certainty, but I call attention to it for the purpore of naying what a pretty shrub it makes in the open border. I saw little buther of it at Memra. J. Cheal \& Sona' Lowfield Nurseries, Crawley, a few daya ago, forming a part of the second line of a mixed border, and very pretty it was, and singularly free. I think this pecier, mingled with $\Delta$ gathea coolentis and a white Viola like Sylvis, or the tinted William Niel, would make a charming combination for a nummer bed, I presume the planta at the Lowfield nurweries had pased throagh the rigours of last winter without any harm to the root stock. $R$. D.

## CHRYSANTHEMUM $\times$ PRINCESS MAY.

In our isaus for Auguat 17, apecial mention was made of a very fine collection of new single-flowered hybrid annual Cbrysanthemume, which were exhibited by Mr. Henry Brownhill, needsman, Sale. We now give an illustration of one of the best of these (Ag. 53, p. 295), known as Prineens May. The
flower it white, with a deep yello flower in white, with a deep yellow ring round an excelilent shape and decorativo bad, and the flower of exceilent ohape and decorative valuc. There hybrids,
obtained by erouning $C$. cornanium natum, may be propagated by meana of cattingar.

## BOTANICAL SECTION OF THE <br> BRITISH ASSOCIATION.

The annual meeting of the association in in progress at Ipswich. The pablic business was opened oo Wednesday by an address from the President, Sir Douglas Galton, who gave an account of the progress of acience generally during the last sixty-five years, prefacing it with a few remarks on the career and personality of the late Prof. Haxley. On Thursday the business of the several sections began. The Botanical Section was opened by an address from Mr. W. T. Thiselton Dyer, C.M.G., the Director of the Royal Gardens, Kew, the substance of which we give in part in the following columne.

Retrospect.-I confess I found it a great temptation to review, however imperfectly, the hitory and fortunes of our subject while it belonged to section D. But to have done so would have been practically to have written the history of botany in this conntry since the first third of the centary. Yet I cannot pais over some few striking eventr.

## Bater and Robert Brown.

I think that the earliest of these mast undoubtedly be regarded as the most poch-making. I mean the formal publication by the Linnean Society, in 1833, of the first description of "the nucleas of the cell," by Robert Brown.* It neems difficult to realise that this may be within the recollection of some who are now living amongst us. It is, however, of peculiar interest to me that the firat peran who actually distingaished this all-important body, and indicated it in a figure, was Francis Bauer, thirty years earlier, In 1802. This remarkable man, whose akill in applying the resources of art to the illuatration of plant anatomy has never, I auppose, been aurpassed, was "renident draughtsman for fifty years to the Royal Botanic Garden at Kew." And it was at Kew, and in a tropical Orchid, Phaius grandifolia", no doubt grown there, that the discovery was made.
It was, I confess, with no little admiration that, on refreshing my memory by a reference to Robert Brown's paper, I read again the vivid account which he gives in a footnote of the phenomens, so painfully familiar to many of who have been teachers, exhibited in the staminal hair of Tradescantia. Sir Joseph Hooker $\dagger$ has well remarked that "the sapreme importance of this observation, . . . leading to undreamt-of conceptions of the fundamental phenomene of organic life, is acknowledged by all investigatore." It is ningular that so profound an observer as Robert Brown should have himself miseed the nignificance of what he anw. The world had to wait for the discovery of protoplasm by Von Mohl till 1846, and till 1850 for it identification with the aarcode of zoologist by Cohn, who is atill, I am happy to say, living and at work, and to whom last jear the Linnean Society did itself the honour of presenting its medal.
The Edinburgh meeting of the Ansciation, in 1834, was the cccasion of the announcement of another memorable discovery of Robert Brown's. I will content myself with quoting Hofmeister's $\ddagger$ account of it. "Robert Brown was the discoverer of the polyembrony of the Coniferm. In a later treatise he pointed out the origin of the pro-embryo in large cells of the endonperm, to which he gave the name of corpuccula." The period of the forties, jant half a century ago, looks in the retroapect as one of almost dezzling discovery. To say nothing of the formal appearance of protoplasm on the scenp, the fonadations were being laid in all directions of our modern botanical morphology. Yet its contemporaries viewed it with a very philonophical calm. Thwaites, who regarded Carpenter as his master, described at the Oxford meeting in 1847 the conju. gation of the Diatomacere, and "distinctly indicated," as Carpenter \& saya, "that conjagation is the primitive phate of sexual reproduction." Berkeley informed me that the announcement fell perfectly flat. A year or two later Suminuki came to London with his uplendid discovery (1848) of the archegonia of the

[^20]Fern, the antheridia having been firt teen by Näzeli in 1844. Carpenter * gave me, many yenn after, a carious account of its reception, "At ith Conncil of the Ray Societr, at which," he naid, "I advocated the reproduction of Suminskira book ou the Ferns, I was assured that the close resemblence of the antherozoids to spermatczoa was quite nifio. cient proof that they coald have nothing to do mith vegetable reproduction. "I do not think," he added -and the complaint is pathetic-" that the mend the present generation, who have been broaght ap in the light, quite apprehend (in this as in other matters) the utter darknens in which we were the groping, or fully recognise the deserts of thown mion helped them to what they now enjoy." This min 1875, and I auppose is not likely to be lens true now, Darfin, Huxley, Hoorer,
The Oxford Meeting in 1860 was the acene of $y^{\prime}$ mecorable debate on the origin of apecier, at nit it is interesting to remember that Henslow preinit On that occasion Section $D$ reached its meridim The battle was Homeric. However little to the taste of its author, the launching of his great theor was, at any rate, dignified with a not inconaiderabib explosion. It may be that it in not given to the men of our day to roffla the dull level of pablie placidity with disturbing and far-reaching idem But if it were, I doubt whether we have, or ned now, the fierce energy which inspired then either the attack or the defence. When we met aginin Oxford last year the champion of the old confilits stood in the place of honour, acclaimed of all men, a beautiful and venerable figure. We did not hoor then that that was to be his farewell,
The battle was not in vain. Six jears aftermarih at Nottinghsm, Sir Joseph Hooker deliverad hin clanical lecture on Insalar Floras. It implicitly accepted the new doctrine, and applied it with admirable effect to a field which had long waited for an illaminating principle. The lecture itself hen since remained one of the corner-atones of thit rational theory of the geographical distribution of plant which may, I think, be claimed fairly uof purely English origin.

## Henslow.

Addreming you as I do at Ipawich, there fie cee name written in the annain of our old Section which I cannot pass over-that of Henalow. He wat the Secretary of the Biological Section at its first meet. ing in 1832, and its Prenident at Britol in 1836. I sappose there are few men of this centary who have indirectly more influanced the carrent of hamsa thought. For in great measure I think it will not be contented that we owe Darwin to him, As Romanes has told ust: "His letters writesen to Professor Henalow daring his voyage round the world overflow with feelings of affection, veneration, and obligation to his accomplished master and dearest friend-feelingo which throughout hit liff he retained with no diminished intensity. Ao ho nud himself to way, before he knew Profenor Henilor the only objects he cared for were foxes and prro tridger." I do not wioh to overatate the factan The posseasion of "the collector's iastinct, stroog is Darwin from his childhood, an in unally the case in great naturalista," to use Haxley'\& worde, woll have borne its usual fruit in after life, in eome shap or other, even if Darwin had not fallen into Hero slow'i hands. Bat then the particalar train of eventa which culminated in the great work of his life would never have been atarted. It appeered to me, then, that it would not be an altogether unite tereating investigation to ascortain something abont Henslow himself. The resalt has been to proride me with several texta, which I think it may be pot anprofitable to dwell apon on the preenent occuivitio In the firat place, what was the secret of hin ind ence over Darwin? "My dear old master in Naturn History" (Life, ii. 317), he calle him; and tmatan atood in this relation to Darwirs gs no amall matal

> Loc.cit. 141. $\dagger$ Memorial Notices, 13.
> Proc. R.S., zliv., vi.
> As I shall have frequent cocsesion to quote the $i f 6$ Lettere, I ohall insert the references in the text

Again, he speaks of his friendship with him as "a circumatance which influenced my whole career more than any other" (i, 52). The aingular beauty of Henalow' character, to which Darwin himuelf bore noble tentimony, would count for something, but it would not in itself be a sufficient explanation. Nor was it that intellectual farcination which often bind papils to the master's feet; for, as l)arwin tells us, "I do not suppose that anyone would asy that he possessed much original genius" (i. 52). "The real attraction neems to me to be found in Henolow poseanion, in an extraordinary degree, of what may be called the Nataral History apirit. Thia resolves itself into leen observation and a lively interest in
to be looked at again; or perhape writen a paper on nome obvious phenomena which he could have atudied with less fatigue in the Palm-house at Kew.
The secret of the right use of travel is the posesnion of the natural history instinct, and to those who contemplate it I can only recommend a careful tudy of Darwin's Naturaliut's Voyage. Nothing that came in his way eeem to bave evaded him, or to have seemed too inconsiderable for attention. No doubt some respectable travellers have lost themselve in a maze of observation that have led to nothing. But the example of Darwin, and I might add of Wallace, of Huxley, and of Moneley, whow
history in the Univeraity previout to his taking up his renidence there." The Professor of Botany had delivered no lectares for thirty years, and though Sir James Smith, the founder of the Linnean Society. had offered him services, they were declined on the ground of him being a Nonconformist.*
As to Henslow's own scientific work, I can but rely on the judgment of those who could appreciate it in relation to it time. Aecording to Berkeley, + "he was certainly one of the flrat, if not the very first, to see that two forms of fruit might exiat in the same fungas." And this, ne we now know, was a fandamental advance in this branch of morphology, Sir Joneph Hooker telle me that his papert were all diulinctly in advance of his day, Before occupying the chair of botany, he held for some years that of mineralogy. Probably he owed this to hir paper on the Isle of Anglesey, published when he wat only twenty-nix. I learn from the same authority that this to some extent anticipated, but at any rate atrongly influenced, Sedgwick nubsequent work in the same region.

## Botanical Teaching.

Henslow' method of teaching denerve atudy Darwin mays of his lectures "that he liked them much for their extreme clearnens." "But," he addm, "I did not etudy botany" ( i , 48) , Yet we must not take thi too eriounly. Darwin, $\ddagger$ when at the Galapagon, "indiacriminately collected everything in flower on the different islands, and fortunately kept my collection separate." Fortunately indeed; for it was the result extracted from theme collections, when worked up absequently by Sir Joseph Hooker, which determined the main work of his life. "It was nuch cases as that of the Galapagon Archipelago which chiefly led me to study the origin of apecies" (iii. 159).

Henslow's actual method of teaching went some way to anticipate the practical method of which we are all so proud. "He wat the first to introduce into the botanical examination for degrees in London the syatem of practical examination."\& But there was a direct simplicity about his clas arrangements characteriateric of the man. 'A large number of specimens. . . were placed in basket on a idetable in the lecture-room, with a number of wooden plates and other requisite for disecting them after a rough fashion, each atudent providing himself with what he wanted before taking his seat." ${ }^{3}$ || Io not doubt that the reulta were, in their way, as efficient as we obtain now in more atately laboratorien.

The moat intereating feature about his teaching wha not, however, it academic anpect, bat the une he made of botany as a general educationel instrument. "He alway held that a man of no powern of obwervation was quite an exception." "He thought (and I think he proved) that botany might be used "for atrengthening the obeervant facultien and expanding the reasoning powern of children in all clawes of cociety."** The difficulty with which tho who undertake now to teach our subject have to deal is that mont people ank the question, What is the use of learning botany unlen one means to be a botanist? It might indeed be replied that as the vant majority of people never learn anything effectively, they might as well try botany am anything else. Bat Henslow looked only to the mental discipline; and it was characteristic of the man and of his belief in his methods that when he was summoned to Court to lecture to the Royal family, hie lecture" "were in all respecte, identical with those he way in the hable of giving to his little Hitcham weholarw"; $\dagger+$ and it munt be added that they were not lems succenafal.

This auccess natarally atiracted attention. Botmnical teaching in schools was taken up by the Government, and contiaue to receive aupport to the present day. Bat the primitive mirit han, I am afraid, evaporated. The measurement of reults by means of examination has been fatal to itm marvival. The teacher has to keep steadily before hil eyen the

necesity of earning his grant. The educational problem retires into the background. "The strengthening of the observant facalties," and the rest of the Henslowian programme mut give way to the imperious necenity of prenenting to the examiner candidates equipped with at least the minimum of text-book formulas reprodacible on paper. I do not speak in this matter without painful experience. The most astate examiner is defeated by the atill more astute crammer. The objective baais of the study on which its whole asefaness is built ap is promptly thrown aside. If you supply the Appleblonsom for actual description, you are as likely as not to be farniabed with a detailed account of a Buttercap. The training of obervation hat gone by the board, and the exercise of mere memory has taken its place. Bat a table of logarithms or a Hebrew grammar would serve this parpose equally well. Yet I do not deapair of Henslow's work atill bearing fruit. The examination aystem will collapse from the sheer impossibility of carrying it on beyond a certain point. Freed from its trammels, the teacher will have greater acope for individuality, and the realt of his labours will be rewarded after nome intelligent aytem of inapection. And here I may claim support from an unexpected quarter. Mr. Gladstone has recently written to a correspondent: -"I think that the neglect of nataral history, in all its multitade of branches, was the grossest defect of our old ayatem of training for the young; and, farther, that little or nothing has been done by way of remedy for that defect in the attempts made to alter or reform that system." I am sure that the importance and weight of this teatimony, coming as it does from one whose training and sympathien have always been literary, cannot be denied. That there is already some revival of Henalow's methods, Ijadge from the fact that I have received applications from Board schoole, amounting to some handredy, for surplus apecimens from the Kew maseumr. Without a apecial machinery for the parpone I cannot do much, and perhaps it is well. But my ataff have willingly done what was ponsible, and from the letters I have received I gather that the labour has not been wholly misspent.

## Musedu Arrangement

This leade me to the last branch of Henslow's scientific work on which I am able to touch, that of the arrangement of maseam, eapecisily those which being local have little meaning unless their purpose is atrictly educational. I think it is now generally admitted that, both in the larger and narrower aspects of the question, his ideas, which were shared in ame measure by Edward Forber, were not merely far in advance of his times, bat were ensentialy sound. And here I cannot help remarking that the zoologists have perhapa profited more by his teaching than the botanistr. I do not know how far Sir William Flower and Profenor Lankeater woald admit the influence of Henslow'a idens. But, so far as my knowledge goes, I am not aware that, at any rate in Earope, there is anything to be aeen in pablic manenms comparable to the educational work accomplished by the one at the College of Sargeons and the Naturnal History Maseam, and by the other at Oxford.
I have often thonght it ningular that in botany we have not kept pace in this matter with our brother naturalints. I do not doabt that regetable morphology and a vast number of important facts in evolution, as illustrated from the regetable kingdom, might be presented to the eye in a facinating way in a carefully-srranged museum. The most anceensul and, indeed, almost the only attempt which hae been made in this direction is that at Cambridge, which, I believe, is due to Mr, Gardiner. But our technical methode for precerving specimens atill leave much to deaire. Something more satiafaotory will, it may be hoped, some day be devined, and the whole aubject in one which is well worth the careful conaideration of our Section. Hemalow at least effected a vaet improvement in the mode of diaplaying botanical which was exhibited at one of the Paris owathanditions,
excited the warm admiration of the French botaniats, who always appreciate the clear illastration of morphological factu.

## Old School of Natubal History.

If the old school of natural history of which Henslow in his day was a living spirit is at present, as neema to be the cane, continually losing its hold upon as, this has certainly not been due to its want of value as an educational diacipline, or to its sterility in contribating new ideas to haman knowledge. Darwin's Origin of Species may certainly be regarded as it off ppring, and of this Huxley * says with justice: "It is doabtfal if any single book, except the Principia, ever worked so great and rapida revolation in acience, or made so deep an impression on the general mind." Yet Darwin's biographer, in that admirable Life which ranks with the few really great biographies in our langaage, remarks (i, 155): "In reading his book one is reminded of the older naturalists rather than of the modern achool of writera. He wan a naturalist in the old sense of the word, that is, a man who works at many branche of acience, not merely a specialist in one." This is no doubt true, but does not exactly hit off the distinction between the hind of atady which has gone out of fashion and that which has come in. The older workers in biology were occapied mainly with the external or, at any rate, gronser festares of organism and their relation to surrounding condition ; the modern, on the other hand, are engaged on the stady of internal and intimate structure. Work in the laboratory, with its necenary limitations, takes the place of research in the field. One may almost, in fact, ary that the une of the compound microscope divides the two classes. Aua Gray has compared Robert Brown with Darwin as the "two British naturaliate" who have, "more than any others, impressed their influence upon science in the nineteenth centary." $\dagger$ Now it is noteworthy that Robert Brown did all his work with a simple microncope. And Francis Darrin writes of his father: "It strikes us nowadays as extraordinary that he should bave no compound microscope when he went his ' Beagle ' voyage; but in this he followed the advice of Robert Brown, who wat ar authority on auch matters" (i. 145). One often meets with pernons, and nometime of no amall eminence, who apeak as if there were some necensary antagonism between the old and the new atadies. Thas I have heard a distinguished aystematist dencribe the microscope as a curae, and a no lem diatingaished morphologist peak of a herbarium having its proper place on a bonfire. To me I confese this anathemstisation of the instrument of research proper to any branch of our sabject is not easily intelligible. Yet in the case of Darwin himself it is certain that if his earlier work may be waid to rent solely on the older methods, his later researches take their place with the work of the new echool. At our last meeting Pfeffer vindicated one of hin latent and mont important observations.
The case of Robert Brown is even more atriking. Ho is equally great whether wa clans him with the older or the modern echool. Ia fact, so far as botany in this country is concerned, he may be regarded as the founder of the latter. It is to him that we owe the establishment of the atructare of the orule and its development into the seed. Even more important wero the discoveries to which I have already referred, which altimately led to the entablishment of the group of Gymnosperms. "No more important discovery," says Sach, $\ddagger$ "was ever made in the domain of comparative morphology and aystematic botany. The firat ateps towards this resalt, which wan clearly brought out by Hofmeister twenty-five yeara later, were aecured by Robert Brown's res aearches, and he was incidentally led to these researches by aome difficulties in the conatraction of the meed of an Auatralian genus." Tet it may be remembered that he began his career as naturalist
to Flinders' expedition for the exploration of Aug-

[^21]traliz. He retarned to Eagland with 4.000 "for the most part new apecies of planta." And thene have formed the foundation of our knowledge of the flora of that continent. Brown's chief work wh done between 1820 and 1840 , and, as Sachs * tells an, "was better appreciated during that time in Germanay

## Modern School,

The real founder of the modern teaching in this country in both branches of biology I cannot doabs was Carpenter. The first edition of his admirable Principles of Comparative Physiology was published in 1838, the last in 1854. All who owe, as I do, a deep debt of gratitude to that book will agree mith Huxley $\dagger$ in regarding it as "by far the bett genemal arvey of the whole field of life and of the broud principles of biology which had been prodaced ap to the time of its pablication. Indeed," he aide "although the fourth edition is now in many respent ont of date, I do not know its equal for bredith of view, sobriety of specalation, and accaracy of detail."
The charm of a wide and philosophic anrveg of the different forms under which life presents ituelf could not but attract the attention of teachern. Rolleston elaborated a coarse of instraction in zoology at Oxford in which the atructures deacribed in the lecture-room were subsequently worked oots in the laboratory. In 1872 Huxley organised the memorable course in elementary biology at South Kensington which has aince, in its easential featuree, been adopted throughout the country. In the follon: ing year, during Haxley's absence abroad throngh ill-health, I arranged, at his request, a courre of inatruction on the ame lines for the vegetab's kirgdom.
That the development of the new teaching wa inevitable can hardly be doubted, and I for my part am not disposed to regret the share I took in it. But it was not obvious, and certainly it was not expected, that it would to so large an extent cut the ground from under the feet of the old natanl history stadien. The consequences are ratter aerions, and I think it is worth while pointing them out.
In a vast empire like our own there is a good deal of work to be done and a good many posts to be filled, for which the old natural history training was not merely a uaefal bat even a necemary proparation. But at the present time the univerities almost entirely fail to aupply men anited to the work. They neither care to collect, nor bave they the skilled aptitade for observation. Then, though this country is possensed at home of incomparsble atores of accamalated material, the class of competent amatears who were mostly trained at our universities and who did ach good service in working that material out is fast disappearing. It mas not be easy indeed in the futare to flll important posts even in this country with men possensing the necessary qualifications. But there was still another source of naturalists, even more anefal, which bat practically dried ap. It is an interesting fact that the large majority of men of the lat generation who have won distinction in this field have begun their career with the stady of medicine. That the kind of training that natural history studies give in of advantage to stadents of medicine which, rightily regarded, is itself a natural history itudy, can hardly be denied. But the exigencies of the medicel curriculum have crowded them out; and this, I am afraid, mast be accepted as irremediable. I eannot refrain from reading you, on this point, an extract from a letter which I have received from a dietino grished official lately entratted with an important foreign misaion. I should add that he had himelf been trained in the old way:-
"I have had my time, and mast leare to younget men the delight of working these interesting fielde Such chances never will occur again, for roade ar now being made and ways cut in the jungle and forest, and jou have at hand all worts of trees leoel

[^22]Memorial Skutch, 67.
on the ground ready for atudy. These bring down with them Orchids, Ferns, and climbers of many kinds, including Rattan Palmn, \&cc. But, excellent as are the officers who devote their energy to thas opening up thi country, there is not one man who knowa a Palm from a Dragon-tree, so the chance is loat. Strange to ary, the medical men of the Government service know less and care less for natural history than the military men, who at least regret they have no training or atudy to enable them to take an intelligent interest in what they aee around them. A doctor now-a-days cares for no living thing larger or more complicated than a bacterium or a bacillus."
But there are other and even more serious ground why the present dominance of one aspect of our aubject is a matter for regret. In the concluding chapter of the Origin, Darwin wrote: "I look with confidence to the fatnre-to young and rining naturalists." But I observe that most of the new writer on the Darwinian theory, and, oddly enough, eapecially when they have been trained at Cambridge, generally begin by more or less rejecting it as a theory of the origin of species, and then proceed unhesitatingly to reconstruct it. The attempt rarely aeems to me aucceafful, perhaps because the limite of the laboratory are unfavourable to the accumulation of the class of observations which are nuitable for the parpose. The laboratory, in fact, has not contributed much to the Darwinian theory, except the Law of Recapitulation, and that, I sm told, is going out of fashion.

The Darwinian theory, being, as I have attempted to show, the oatcome of the natural history method, rested at every point on a copious basil of fact and observation. This more modern speculation lackt. The reant is a revival of transcendentalism. Of this we have had a copious crop in this country, but it is quite put in the abade by that with which we have been supplied from America. Perhap the most remarkable feature is the persistent vitality of Lamarckism. As Darwin remarks: "Lamarck's one arggention as to the csuse of the gradual modification of apecies-ffort excited by change of con-ditions-was, on the face of it, inapplicable to the whole vegetable world" (ii. 189). And if we fall back on the inherited direct effect of change of conditions, though Darwin admits that "physical conditions have a more direct effect on plants than on animala" (ii. 319), I have gever been able to convince myself that that effect was inherited. I will give one illuatration. The difference in habit of even the ame apecies of plant when grown under mountain and lowland conditions is a matter of general observation. It would be difficult to imagine a case of "acquired characters" more likely to be "inherited." But this does not seem to be the case. The recent careful research of Gaston Bonnier only confirms the experience of cultivators. "The modifications acquired by the plant when transported for a drfinite time from the plaine to the Alps, or vice verea, disappear at the end of the same period when the plant is restored to it original conditions." *

Darwin, in an eloquent pasage, which is too long for me to quote, $t$ ham shown how enormously the intereat of natural history is enhanced "when we regard every production of Nature an one which has had a long history." and "when we contemplate every complex atructure ... an the summing ap of many contrivances." Bat this can only be done, or at any rate began, in the field and not in the laboratory.

A more serious peril is the dying out amongat ut of two branches of botanical atudy in which we have hitherto occupied a position of no amall diatinction. Apart from the staffs of our official institations, there seems to be no one who either taken any intereat in, or appreciates in the amallest degree, the importance of aytematic and deacriptive botany. And geographical distribution in almost in a worne plight, yet Darwin calls it, "that grand aubject, that almont keyatone of the laws of creation " (i.356).

[^23]$\dagger$ Origin, 426.

I am aware that it is far easier to point out an evil than to remedy it. The teaching of botany at the present day has reached a pitch of excellence and earneatnens which it has never reached before. That it is somewhat one-sided cannot probably be remedied without a subdivision of the abject and an increase in the number of teachert. If it han a positive fault, it is that it is mometimes inclined to be too dogmatic and deductive. Like Darwin, at any rate in a biological matter, "I never feel convinced by deduction, even in the case of H. Spencer's writings" (iii. 168). The intellectaal indolence of the stadent inclinea him only too gladly to explain phenomena by referring them to "inms," instead of making them tell their own atory.
(To be continued.)

## VEGETABLES

## VEGETABLES AT HIGHCLERE

Authovar Mr. Pope, the gardener at Highclere, is noted for his success in exhibiting vegetables, it should not be anumed that the growth of prodace for exhibition absorb his whole intereat. To a gardener of nuch experience and pertonal knowledge of vegetables, the tenting of new varieties is an agreeable and intereating employment. To visitors this is an important item, 28 one is sure to see much that is now and interesting. When visiting Highclere just previous to the great Shropshire show, I had an opportanity of seeing some of the specimens in courte of preparation for that meeting. The kitchen garden appears eapecially well adapted to vegetable calture, particularly in such a season as the present ; the aspect is a weaterly one, baving e sharp alope in that direction. A dry summer exactly nuite nuch a garden, for owing to the great depth of soil, and the cooler condition of the garden itself, consequent upon its aspect, the vegetable crops have positively revelled, even during the fierce heat. A tablet over one of the entrances to the garden discloses the fact that the garden has been in existence over 100 years.
Potatos are made astrong point in collections of vegetables hown by Mr. Pope, for he rightly considere this vegetable the most important of all. Satiafaction is a favourite variety for exhibition, as it combines good form with a clean skin, and, what is more, it cooking qualities are of the highest. Satton's Seedling is also e favourite, and it too combines all the qualities that make Potator valuable. Windsor Castle is esteemed highly, and so is Reading Ruset and Prizetaker; the latter has excellent quality here. Mr. Pope does not believe in the crowding method of Potsto culture. Abundant apace is allowed them here, that they may make a full development of haulm and foliage.

Onion are remarkably well grown, not only for exhibition but as a crop for home use. For the former purpose, nome magnificent balb were seen many ample of Excelsior-a variety rained by Cranston-I noted that measured 18 inches in circamference, and it is regarded the finest Onion for exbibition in cultivation. It is sometime thought that anch Onions as these are useleas for any other parpose; but this is an error-they will and do keep sound until April. The seed is sown in a gentle hest in January, and the plants are pricked off into boxes of rich noil, grown on gradually, and thoroughly hardened off before finally planting out. Although the weather has been both hot and dry, no watering has been done, bat heavy mulchinge of Mashroom-bed manure were omployed. AngloSpanioh and Lord-Keeper, too, are prized for exhibition.
The Main Crop varieties, which are grown in large quantity, are thinned bat little, and the bulbe thoroughly wedged each other is the rowa. Mr. Pope thinks highly of the Southport Red and Yellow Globe varieties, as they are deeply-formed bulbw, atrong objection being taken to those that are remarkable only for width. Walker's Exhibition is an excellent cropper; Veitch's Main Crop is an entablivhed farourite, and so is Bedfordabire Cham-
pion, and the Wroxton; the latter hat especially long balbs. Giant Zittar is promising, and o is Sandringham. Messrs. Satton's recent addition. Magnum Bonum, is flatter, but nevertheles promising. Celery cultare here in remarkibly good. The old-fashioned plan of blanching it with soil is not followed, bat aheet of brown-paper are used. The latter is much better for exhibition purposes, inasmuch as it prevent aluga injuring the outer leaves. Abundance of rich food is required to grow really good ancculent Celery in Aaguat and Sep. tember. Siandard-bearer, Laing's Mammoth, red and white, along with a dwarf-growing red variety, resembling Satton's Al, are the varieties grown.
At Highclere, extra-large heads of Caulifowert are not fayoured, mediam-nized closely grown, pare white head are those selected; Mapuam Bonum, Eclipse, and Autumn Giant, are the kind preferred. Deep atirring of the soil, combined with heary manuring, are the points to oberve in growing Caulitowern. Brassels Sprouts at the time of my visit were quite a yard high, the teme already packed with close fine head.. It is uselens to expect a fall crop of buttons if they are not formed before September is in. For the Octobar and November showa, early sowinge and liberal cultivation are the chief point to observe. Espocially good are the Carrots; they are not over-large, bat perfect in form and colour. The soil here is just anitable for this crop. Now Intermediate is the variety depended upon. So well do they grow here, that Mr. Pope drew out of the ground bat nineteen roots from which to select the eighteen ho staged at the Suathampton show in three collections. Mr. Pope grows the balk of his Tomato in a low pit in ahallow boxer, training them like Cucumbers under the glass, and amooth fruite of the Perfection type are those grown. Polegate he regard very favourably as being large enough and perfect in form, without the ugly dimple in the centre so objectionable in many varieties. Plant growing against a wall out-of-doors and at the foot of a Yew hedge were carrying very fine crops. I counted as many at two dozen fruits of Polegate upon one plant. The plante were atrong, and a good aize before planting; it is useless to have them otherwine for planting out-of-doors. Scarlet Ranner Beans are mach preforred to Kidaey Beans. To get them early, Mr. Pope nowe in good time, and grown the plante on under glase until they are 2 foet high and in bloom; they are then carefully planted in a warm site. From these plants good Beans are obtainable at the end of Jaly. Ne Plas Uitra is the variety preferred.

Among Beet no variety find favour for exhibition for the early show: like Pragnell's; and Cheltenham Green Top, or come one of the many dark-leaved varieties for later hown. Very many persons make the same mistake in growing Beet by sowing too early; the roots then grow coarse; mediam-aized, richly-coloured examplen are preferred. Amongat Cacumbers, Progrens is esteemed, being a darkakinned, straight-growing variety. For packing the vegetable to travel long distances, wood-wool is conaidered excellent, but dried phagnom moss, too, is much used. E. M.

## Vegrtables at Reading.

At the autamn exbibition of the local eociety, vegetablet are always ahown in firnt-clas form. At the recont exhibition, Mowarn. Sutton \& Sone offered valunble prizes for collection of unlimited numbers. There were four apecially meritorious collections in competition, each comprising about forty varietien, and a total of 160 dishem. The work of judging these collection* was singularly difficult and lengthy, so comparatively oven and so fine tha average. Coarmeness is rarely ween at Reading, quality dominates. The ultimate result was that Mr. Bowerman, gr. to C. Hoare, Esq., Heckwood Park, Baningatoke, was placed 1st; Mr. R. Lye, gr. to Mrs. Kingemill, Sgdmonton Court, was 2ad; Mr. W. Pope, gr, to the Farl of Carnarvon, Highclere Caatle, 3rd; and Mr. C. Waite, gr. to the Hon. Col. Talbot, Glenhurat, Enher, 4th. Literally, it was a battle of the beat vegetable exhibitor in the kingdom, and one of which Reading might well be proud.

## BELGIUM

## PLANTS AT THE ROYAL CHÂTEAU AT

 LAEKEN.Dubing a visit paid to Laeken lately, I noticed some fine seedling tuberoun Begonian, very good and rich in colouring; some of the double varieties were very remarkable. There was a charming collection of Nægelia, as well as large and fine secimens of Sonerila, new this season. Some Streptocarpus filled two stages of a house, where they were intermixed with some fine taberous Begonias in full bloom. There were some pretty new varieties of Streptocarpas from Mesars. Veitch, and those raised at Laeken are numerous and good.

An unuaal and admirable variety, which we compared to a fine Pentatemon, deserve mention. The groand-colouring was purple, the throat had a white ground with very dark and effective veinings; there was one white spot at the base of the lower mid-rib, jast at the spot whence springs the lateral lobe-in fact, the whole flower is most effective. There were many reedlings of Anthurium Andráanm with large epathes; in some the spathes were very dark, in other the veinings were very distinctly marked.

In the Orchid-house, in spite of the unfavourable season, I noted Odontoglossum Harrymam with six flower-stems; Oncidiam incurvam with fourteen floral trunes and quite 2000 buds; these branches are trained along iron wires, which trace out a royal crown; this will be very fine when in fall bloom. One Lalia (risp with a fine well-spread and waved lip, with a dark gronod, bore aix flowerateme and thirty-eight flowers and bud. Six specimens of Cattleya Rex bore altogether forty bloomsone plant alone bore ten; Dandrobium ansvissimum with many tranes; and Epidendram vitellinam with weren racemes. I noted, benides mome fine Cattleya gigas, Gaskellians and Schilleriana, I noticed one specimen of C. Mossiz with 127 flowers, and a plant of Olontoglossum Bictonenge with fourteen trases each with fifteen flowern.

## Obchids at Brossels.

In spite of the unfarourable season, I recently found in bloom at l'Horticaltare Internationale namerous fine apeciment of Phaia Hambloti and LælioCattleyas, a good Cypripedium Morganixx, Cattleya gigas, numerous plants of Catasetum Bangerothi, and good varietie of Cattleys Rex.
M. Peetera han some fine dark varietien of Mil tonis Moreliana and of M. neectabilis; the very beartiful M. Peeterai, Rchb, the M, Blanti, Peetersiana of Rolfe; the rare Dandrobium Guiberti, and a Cypripediam Harrisonianum, all greenish-yellow, very carious, bat lem pretty than the type. Ch. de B,

## GROUPING FOR EFFECT IN CONSERVATORIES.

Is many good gardens I have inwardly lamented the lack of tavte exhibited in arrangiag subjects, indoors and out, frequently involving a wate of good material, When the opposite of this is aeen, and good tante is evident, it is a plessure to record the fact. A few weeks ago I visited the gardens of Ommaton Manor, near "romantic Ashbourne," in Darbyahire, and I was charmed with the beautifal effects which were to be sen in every department. The conservatory strack me as boing an sdmirable exposition of tastoful arrangement. The structure was about 40 feet aquare, and the effect was made in the centre. There was no staging, but, on the other hand, there waremall knolla of rockwork, wo mranged over the urface as to form undalating slopes and miniature valleys. Selaginellas and Lycopotimme covered the stonen, while here and there aroue from thil mon-like carpeting, Dracmas, Coleus, Begonien, Crotons, Catalpas, and other richly-coloured foliage plante; while renting on the alopen were Fittonian, Bertolonian, Pepperomiay, with Tradescantia trailing in and around them. Standing up boldly at irregular ditancen were Palms of various kinds, and Ficus repent and
nimilar climbers covered the wall. The effect wan most pleasing, and quite apart from the usual atyle of conservatory arrangement. Oat-of-door the same good taste was evident. Flower-bed gay with Pelargonium had an ample setting of well-kept lawn, giving a soft, pleasing effect, instead of the too frequent garish display. Around the noble manaion runs an open corridor, facing the lawn, with a long serien of arched pillars. In the centre of each, and hanging from the arches, were bavket of Pelargoniums flowering profusely.

In the vineries and other houses, the abandance and quality of the fruit and the condition of the trees spoke plainly to the skilful culture which obtained at this beautifal place-the out-of-door fruit, the vegetable garden, and the herbaceous border being worthy of equal note. Mr. Bardney, the gardener there, had some very good new Carnstion in fine condition, and, indeed, the whole place is a credit to him. Rambler.

## The Week's Work.

## THE FLOWBR GARDWN.

By BAILEY WADDS, Gardexer, Birdsall Gardens, York.
BEDDING PLANT8.-Complete arrangement for the filling of beds next summer, and then propagate the plant in the proportion required. The past summer has not been a favourable one for the flowering of Pelargoniums, the heavy torms of the last few weeks have dashed the flowers severely as soon as they have appeared; but, on the other hand, single flowering taberous-rooted Begonias, Dahlias, and Pentatemons, have done exceedingly well, withstanding the raintorms and andden changes of weather. If Begonias planted in beda in the East Riding of Yorkhire during a meavon like the present one give aatisfaction-as they have done in many cases-they may be asfely planted in any other part of the kingdom. Begonias damaged by rain or winds quickly recover, and their bright green foliage accentates every particle of flower. Cattinge of Begonias may atill be pat in boxes or pots of andy soil, and placed in a warm-house or pit, and kept growing as long as ponible.

PELARGONIUMB.-Cattinge which may be taken after this date and pat in boxes or pot bhould be placed in frames or pitm, from which the glase-lights are removed. Keep them in the open air an long as possible; but if the weather becomes wet and cold, the lights ahould be placed over them, at the same time tilting them up to allow abundance of air. The old varieties, John Gibbon and Amy Hogg, are ntill valuable as bedders; H. Jacoby has not done so well this aeason; Vesuvius and West Brighton Gem are good. The toning of colours in flower-bed is ocessionally very well done. One arrangement of a long scroll bed planted with the following, and seen at its bent, was excellent:-The edging was of seedling plante of Centaurea candidissima, the next broad band was planted with Lobelia speciosa, with Honri Jacoby Pelargoniams in the centre, dotted through with white Cactas Dahlia Constance.

BEDDINO DAHLIAs have given much ativfaction; they are eany to cultivate, and they atand changes of weather better than mont plants. Cattings of the weak side-shoote may be struck in pote or boxes, and if kept growing for a time they will form small bulbs, that will be usefal in the opring, if the varisty is acarce. The show, Pompon, and Cictus varioties aro now in full bloom, and are the most natiofactory of autuma flowers for the garden or for catting parpones.

PENTBTEMON8 for summer and aatuma beds or for catting purpones are invaluable; they atand climatic changen well, and their tall, free-flowering spikes of bloom are very effoctive. Catting of the side shoote should be atruck in frames or hand-lights, that they may bo protected during the winter. Excellent named varieties ars Garge Smith, Countens of Hopetoun, The Lady, Mins Arnot, A. Fowler, President Carnot, and Fairy.

CALCEOLARIA8.-Cutting ahould be taken from the green moft growth, and pricked out ebout 3 inches apart into frames, using well-drained sandy oil. Sbade the glase with a little thin whitemash for a time. The framen thould bo kept rather clove and moist, in order to keep the catting plamp and fresh. With the exception of the rariety amplexicaulis, Calceolarias have not done very well this mearon, and many people lowt their plants in the
frames during the aevere frost, through inafficient attention in regard to protection. They should be kept as cool as possible, excepting that frost should not touch them; a good thick turf-pit is the beta place for them.

ANTIRRHINUMS for keeping through the winter should be struck from cuttinge and kept in frames, in the same way as Calceolaria. In some districh during mild winters they atand very well in the open, but they must not be depended on in this way. Some fine bed of these have been meen this meason of the named varieties.

## THE ORCEID HOUSE8.

## $B_{3^{\prime}}$ W. H. White, Orchid Grower, Burford, Dorking.

ODONTOGLO8BUM8.-No Orchidsare moreworthy of general caltivation than the New Grenadm Odontoglossuma. Most of them are easily managa, and yet sometimes they give more trouble than 4 other class; for when they once lapse into bad con dition, it requires extra care and conaiderable time to rentore them to health. One of the principal cauna of failure is over-liberality in regard to water at the root; other bad casea are brought about by keeping the atmosphere of the house alway in a gaturated condition. The atmorphere should be allowed to become comparatively dry for a few hours daring the midde of each day, so as to enable the plants to throw off any excensive moisture that may havo accumalated about them, which otherwise will prevent sound growth. Odontoglosmum, if watered like so many semi-squatic plants, will assuredly lone many roots, and generally deteriorate. When watering, go carefally over the plants, and thoroughly water those only which are dry. Especially munt this treatment be inaisted upon daring the antuma and winter month in the case of auch Guatemalan and Mexican varieties as O . nebalonm, O . Uro-Skinneri, O. Bictonense, O. grande, O. Insleayii, O. hatilabiam, $O$. palchellum, $O$. Rossii, $O$. Cervantesii, 0 . macalatam, O. cordatam, O. Krameri, O. Oarstedi, O. Hameanam, O. aspersam, $\bigcirc$ Reichenheimii, 0 Gsleotianam, \&c. Every amateur ahould maiso himself acquainted with the natural conditiona and the different elevationa under which the many specier of Odontoglossams grow, as this information will greatly assist him in fulfilling their requirements under artificial caltivation. Where a representative collection of Odontoglossums is grown, there will be some that require potting at different seasons of the year; but there is no better time than the premat for repotting the majority of the plants, eapecially varieties of 0 . crispum, $O$. Pescatorei, 0 , triumphana, O. Hallii, O. Harryanam, O. Iuteo-parpaream, 0 neviam, O. polyzantham, O. nevadense, 0 . excellens, and ().gloriosam. Plants which fowered early in the year are now growing freely, and the new breaks will be making a number of young rooth, whicb, having fresh material to grow in, will become well-established before winter commencet. A suitable compost for thene plants consiats of freshly.gathered aphagnum-moss and good fibr peat in equal proportions, to which may be added moderate quantity of small broken crocke and cbarcoal. Too mach troable cannot be taken in preparing the mose, carefally picking out all the rabbith, and exsmining every particle for amsll slugs ; this be not done, much injary will result to roote and young flower-epiken. The pote used ahould bo in proportion to the size of the plants, and overpotiting must be tudiouely gaarded againat. The pots ahould be quite clean, and be three parta fillod with clean crocks, over which a thin layer of mon should bo apread to make the drainage aecurce Pot the piant moderately firm, keeping the base of the bulbs just above the rim of thed, pot, ad when the operation in complew, over the anface. In going through the collection no doabt some plants will be found in bad healthe These should be turned out of their pots, the row well washed, and all decajed parts cut away. put the plante into pots just large enough to conit is their rootw. For few week: after repoting, adviaable to afford water paringly, giving juat sumell cient to induce the sphagnam to grow. Syriage between the pote morning and evening, and ano aff much frest air as posnible, enpecially when thoortod side temperature is about $50^{\circ}$. Odontoglossum are, generally establinb, which in partly doe to the care taken by the collectors to gather them in the proper now and to their careful packing of the planta. Eaca should be potted separately in as mall a pot almon conveniently be aned, filling ap the pot
entirely with crock, and uaing a thin layer of peat and mosi on the sarface, packed tight enough to steady the plant. After the first growth in formed, and new growth commencen, they should be trantferred to larger pots.

## FRUITB UNDER GLAGB.

B/Riceard Parexer, Gardener, Goodwood, Chichester. LATE GRAPE8. - The fine weather of the pat three week hea proved very beneficial to late Grapes, permitting plenty of ventilation to bs put on daily, and rendering but little fire-heat necessary. It is not wise, however, to diapense with fire-heats altogether, or the temperatare of the house may fall too low toward morning, which will cause moisture to settle on the berrie. Until the frait is thoroughly matured, and the atmosphere of the vinery can be kept quite dry, a elight circulation of ho:-water should be turned on the last thing at night, and at the same time a little air map be left on at the top of the house. By this means a more even temperature will be maintained, and this will greatly help to finish the berrie perfectly. The bunche should be looked over at ahort intervals, and any crowded or bad berries removed, doing the work with care, so 88 not to dentroy the appearance of the bunch. Keep lateral growth in check, that a free circulation of air between the main leavea and bunches may be obtainad. Any watering that is neceanary, should be done in the morning and during bright weather, ot that the house may become dry again before evening. If the present hot weather continue, it will be necessary to damp the house down several time during the day; but in cases whers the bunchea are nearly rips, the last damping thould be done quite sn hour before the honse is closed, to avoid any steam collectiog.

MID 8EABON VINEB.-Plenty of ventilation and a dry atmosphere must bs maintained in vineries where ripe fruit is still havging, and a watchful eye must bs kept for mice and waspe. Should any of the banches show sigus of shanking, cat the crop at once, and take steps to exsmine the roots, and if necessary, renew the borders without delay. Such work ean be done much better at this season than it the apring, when so many other matters claim
aitention, and it in a great advantage to the Vinen, as fresh roots form again quickly and no check is given to neat season's crop of fruit. Young rode that have been trained between old Vines with a view to replacing the latter, soold be exposed as mach as possible to the sun, to ensure the wood boing thoroughly ripened, particularly so if the growth made is very strong, or moms difficulty will be experienced to induce the eves to "break" evenly next apring. It is not necenary to cat out the old Vine altogether the first sesson, bat somany of the spars can be sawn off at the bottom of the Vines as will allow room for the young ones to carry four or six banches of frait next year. After the second or third years, the old Vines can be cat right out, and the yoang ones being well eatablished, a reanon's crop will not be lost.

YOUNG VINES in pots, grown from eye inserted in February, have made good growth, and may be now turned outside to rest an advised recently for fruiting canes. Water must not bo withheld undenly, but les moisture may be afforded an the foliage becomes yellow. Any lateral growth that may how should be pinched out.
strawberries in pots.-Where these were placed closely together for convenience after potting, it is now necessary to afford them more room. Look over the plants at least once a fortnight, and pinch out runners and remove side-growthe, so that only one crown may form. Keep the plant free from weeds, and water regularly. If the pota do not stand on alates or boarde, they mant be twisted round at lesst oncs a week to prevent roots forming in the ashes.

## TEE KITCHAN GARDEN.

By Joma Lambeat, Gardener, Powis Cantle, Wolshpool.
ONIONE.-Tripoli Oaions mown an advised, being now nicely, up, will be benefited by a careful boeing and cleaning of any weede that may have appeared aince sowing, and a dutting of noot thould be given them oa the approach of rain. In late diatricts, Tripoli Oaions may jet be growing, but they should now be talsen up, dried, clenned, and put away for present une. In early districts, they are probably all used up. Where Onions
are grown eapecially for pickling purposes, theme may be pulled at once, carefally cleaned, dried, and sent in for use. Sach Onion do not improve by keeping for any length of time, and should be pickled as soon as they are properly harveated. The general crop of pring sown Oaion will bs nearing the ripening period. Very large Oaion: grown for show parposes may not be quite so fine in the neck an denired, but a sharp twist close down to the balo may be given without distarbing the bulb; or better still, if time il not important, tie them tightly round the neck with a piece of matting. Ia regard to large breadths, the old method of beating them down with a besom is the quickest way, and is fairly effective. Osions for general keeping parposes should not be thick ia the neck as to require this operation. If they are left rather thickly in the lines as advised, they will havo maller neck and smaller bulbs, and among them will be any quantity of picklera that ahould be harvested by themelves. If the weather appeara eettled for hot, fine days, the crope of Oaions will take no harm if palled and laid out on the ground for a few days, placing them with the roote towards the san toripen. Afterwards dry them in a cool vinery where the foliage isfalling, and where the ventilators are open night and day. When they are sorted and stored for winter, it ahould be in a cool dry atore-room or shed, from which frost cau bs excluded. Roping Onions in long strings I regard as time wasted; bat if nufficat top atill adbere to them they may be gathered up quickly into a bundle of a size which can be readily gripped with the hands and given a tie ready for hanging up. Where Oaions are required largely late in the epring, sll the smaller-nizod, fally-ripened bulbe should be remervad for th3 purpose, as these will bs found sound and not inolined to grow like the larger and more flethy bulbe.
parsley.-The first sowing of Parsley will be getting very croxdedin the beds, and should be atripped of all the large outside growths or any yellow leaves from the anderside, so that the fresh growth may have plenty of light and sir. Planta that stood throagh last wiater here, and did
not bolt to need in the spring, are looking remarkably well. Make accanional planting from markably well. Make accasional plantinga from Look well to that sown or pricked out in frames or pits, as recommended, and wee that it does not nuffer for want of water or thinning out. Parsley may also be sown or transplanted into deep, narrow boxes, and tood outaide. If well establinhed before winter, these will be found of ave to placs in any house at dieponal, and will produce a good groxth inaide.

PLANTB UNDIR GLASB.
By W. H. Smith, Gardener, West Dean Park, Chichester.
EUCHARIS if required for flowering at Caristmar, ahould now be rested for a time, and if the plants are planged, they hoald be lifted and placed on slates or bricks. Leas water will be required at the roots, but they should not be allowed to droop. If the plants are syringed twice a day, this will be almost all the water necenary. Giva the planta a good cleaning, remove mealy-bag by porging with soft-soap and water, at the rata of tro ounces of coap to one gallon of water. A conler temperature should bs given, and toward the end of Ostober, they may bs atarted into freth growth by replanging into a bottom heat of about $70^{\circ}$.

BOUVARDIAS that were planted-oat, should now be taken up and potted irto good rich soil. Piace them in a cold frame, and keep it rather close and shaded until the roots have entered the fresh soil.
Plants that have been grown in pots during the ammer, and are fall of roots, will require applications of weak manure water two or three times a week. These plante must be taken into the greenhouse or frame before the nights get too cold.

8OLANUMs thould be potted up into potes emall as will conveniently contain the roota. Place them in a cold frame and keep clone and lightly shaded for a time; when root action hat again commenced, admit plenty of sir. Plante that were grown in pot will be afe outsicie until the end of the month.

Callas (Richardia sethiopica).-Thene hould now be lifted and placed in good-sizad pots containing turfy loam, leaf-soil, and plenty of well-decayed cow-manure. When they are potted place them cow-masure. Whe in the shade antil toward the end of the month, when they should be taken to the greenhouse. If the flower are required early, a few must be taken to the greenhouse or conservatory at once and placed in a position where they will recoive plenty of light.

CAMPANULA PYRAMIDALIS.-These plantsahoald be potted on into 6 inch poti, which are graerally large enough for them to flower in. For potting compost use good turfy loam, leaf-woil, and a few halfinch bones. Place them on athes outside, and syringe the plant frequantly. They may be wintered in cold frames, as a littlo front will not harm them.

FREESIA8 baving now commenced their growth thould receive a good monking with water, and as aoon as the note are full of root they must be liberally sapplied with manara-water. Put the next batch of bulba into $48 \cdot$ sized ( 5 -inch) pote, and cover them with a little cocos-nut fibre. DJ not water antil growth has commenced. Pot up batche of named Hyacinthe, Jonquils, Narciasus, and Tulips as soon as possible after they come to hand, especially if the fiowern are required early. A good quantity of Scilla sibirica may ba placed in larga (if)s, and they will make a very pretty edging for the conservatory stage. Lilium Harrisii End I, candidum mast also
be potted ap without delay, or the balbs will 100 n shrivel.

## THI HARDY FRUIT GARDEN.

## By W. Pops, Gardener. Highchers Castle, Newbury.

Gatherina fruit.-That care nad judgment bo exercised in the harventing of fruit is all important, or the labour of monthe to obtain fruit in the bent ponsible condition as to appearance and quality may be to a great extent thrown away. To secare wuch results, trees of choice Piums, Pesches, Pears, \&cc., should be looked over daily at this seman, eapecially in the afternoons of hot days, wuch as we have experienced lately. It will not be difficult to determine which fruits are really mature and fit either for storing or for unf, at the case may be. Taking Plams, for instance: for culinary purposes these need not be quite ripe, and colour is, of courae, immateria! ; but for dessert, not a fruit should be gathered that is not in the highest degres perfect in ripeners, bloom, and colour. Sach fruit will be proportionately appreciated when aent to table. If fruit be left too long on the trees, it is frequently insipid, and almont tasteless. Peaches are never in the best condition when allowed to remain on the trees after they are rip?, or if allowed to fall into nets underneath instead of being gathered. If these are to be packed for a jurney, they are bent gathered a disy or so before they are fully ripe, because they are leas liable to damage durind travelling. Eich fruit should bs carefully wrappeg in tissue-paper, and firmly embedded in soft, white wood-woo', placing them in single layers in shallow boxes. They may thas be ent long distances in good condition. Necharines hould never be gathered until quite tips and fit for table.

ROOT. PRUNING BARREN FRUIT-TREEB. Apples, Pears, or Plams, trained as pyramid, that may be growing vigoroualy, bat are practically barren, should now b? root-praned, in order to check sach exaberant growtb, and iadace the formation of frait-budr. Young tree may have a trench opened all round at a distance of from $2 \frac{1}{2}$ to 5 or 6 feat, according to the sizs of the tree, working well underneath, so as to sever all tap or other large roots. If fresh oil is available, some may be put into the trench, to encoarage the growth of fresh fibry roots. finishing off with the old eoil, and treading and making all firm. Make each tree at once secure a gaint high winds by three or four lengths of wire, or stout tarred string fastened to strong pegs, or cakes driven secarely into the ground at equal distances round the base, a band of come soft abatance, such as old sacking or hay, being attached to the tree to prevent injary by wire or atring. In the case of large or older trees, this root-praning ahould be ouly partially done at one time, the trench being only taken half-round, the remainiag half being done the following meason if necestary. Where the subsoll is cold and wet means whould be taken to induce rooty to the anfface, by preaerving as many av posaible and to the aurface, by preserving to
laging them in fresh composto.

Aubtralian Lemona.-A Covent Garden ala of Lemons, just received from Autralia, has attracted attention to the acarcity of thir fruit, and the capabilitien of the Irrigation Colonie of Mildura and Ranmark as Lemon-growing districts. Five handred cases were disposed of at prices ranging from $98.6 \lambda_{0}$ to $148.6 d$. per csse, which is regarded as an exceptionally good price at auction, but not fally reprementing the value of the fruit, and higher prices are confidently expected when the quality becomen known.

## EDITORIAL NOTICES.

Advertisements ahould be ment to the PUBLISEBR.
Eewspapart.-Correspondents sending newspopers should be careful to mark the paragraphs they wish the Editor to see.
Local News.-Correspondents will greatly oblige by sending to the Editor carly intelligence of local events likely to be of interest to our readers, or of any matters which it it devirable to bring under the notice of hortioulturists.

APPOINTMENTS FOR THE ENSUING WEEK.


The Chiswiok
Vegetable Show.
As compared with previous conferenoer and exhibitions at Chiswick, notably those oonnected with Apples, Roses, Ferns, Conifers, Pinks, Chrysanthemums, and Dahlias, the exhibition of vegetables was considerably inferior, and the information elioited as to vegetables and their culture conspionous by its absence. The weather this time was all that could be desired, bat the attendance was not large.
It must be remembered that this was the first oocasion for wome years when efforts have really been made by the Royal Horticultural Society to obtain a first-olass and thoroughly representative vegetable exhibition. That the namber of exhibitors in many of the competitive olasses was not equal to the anticipations of many interented in the exhibition was freely admitted, and in this matter there was oonsiderable dieappointment. In the matter of originality, too, with the exception of a very interesting exhibition from Sir Trevor Lawrence, there was far too meagre enterprise, and one looked in vain to the exhibits from the largest and best firms for anything new among vegetables, for comething that would make an additional variety in our present collections. On the other hand, most of the vegetables exhibited in the competitive classem were of first-class quality; indeed, there was but little produce in the exhi-bition-tent that could be fairly classed as inferior. Mr. T. Wrikins, gardener to Lady Throdora Gurst, obtained the first place in the oompetition for twelve distinct klands
with colleotion worthy of the class ; and

Mr. Waite, gr. to Colonel W. P. Talbot, may aleo be congratulated on the oollection he exhibited in the olass for nine distinot kinds. Potatos were exhibited in moderately good quantity, the quality of the tubers in very many cases being quite satisfactory. The Peronospora pest has made itself visible in most gardens since the drought of the early summer was followed by showers. In the gardens at Chiswick this unpleasant fact could hardly fail to be noticed in the Potato haulms; and in gardens where a skilful and intelligent system of culture has not been adopted against the progress of disease, we fear considerable loss will be experienced among the tubern of late varieties. Naturally, however, there was no evidence of any untoward circomstances affecting the Potato, in the specimens upon the exhibition tables, and in this partioular, exhibition produce frequently illustrates in no sense the bulk of the crop outside. The Brassica section of vegetables was by no means lacking in size or quality; and this remark might be equally applied to roots, whioh we regard as remarkable, bearing in mind the climatio conditions of the greater part of the season. In another place are given full particulars of the produce in each of the classes, and we need not refer to them more in this place. It is only fair to add, however, that the great seed-growers, though failing in the particular already mentioned, nevertheless made a capital display of vegetables of all known sorts, and though the varions collections contained no really new vegetable, they illustrated practically the very best varieties and latest improvements in each type; moreover, eaoh wan an object-lesson in good oultivation. Should a Vegetable Exhibition by the Royal Hortioultaral Society beoome an annual event, and we are strongly of opinion that it should do so, there must be some readjustment and revision of the sohedule, in the endeavour to make it more popular with exhibitors, and likely, also, to produce an exhibition that shall present more educational features than did the one under notice. When this has been done, and the event has become recognised as an important one, there is no reason we know of why this exhibition should not become the best illustration of vegetables ever seen in the coantry.

The Chiswick Inepectina Committee.We understand that the following gentlemen formed the committee appointed by the Council, without the knowledge of the Garden Committee, to report on the garden at Chiswick:-C. E. SHes (chairmsn), W. Wilis (Secretary). J. Dovalas, H. Williams, H. Shlfe-Leorard, J. Willabd, E. Hill, J. Jaques, and N. A. Barnes. The Chairman, Secretary, and Memars. J. Dovglas and H. Williais, are membert of the Council, and two are aleo members of the Chiswick Board.

Horticultural Meeting at Ghent.-A certificate for cultivation and flowering (à lunanimite). was awarded to M. F. VAN Dribsschm-LgYs, for Juaticia coccinea, an nnusual opecimen, having fifty fine racemes of expanded flowers. Certificates of Merit were allotted to M. Pymanert Vas Gerbit for Dieffenbachia Fournieri, with very erect foliage, firm in texture, of a beautiful dark-green hue, all marbled with white; to M. L. Pomliman Marnhout for Vrienia Henrici, from V. paittacina $\times$ V. aplendent, a plant not fully in bloom, but already noticeable for its very long floral raceme garnished with fiery-red bracts-thia Bromeliad, by reamon of the unusual length of its flower-atem, should prove very uneful for floral decorations; to M. Pymazbt Van Grert for Tradercantia Regine, a apecies introduced
from Pera by 1 'Horticalture Internationale; the habit and colour are magnificent, leaves lancoolth, pointed, dark green, atreaked and lined with white; to M. Albebt Torffaert for Lexlio-Catilega Als dreana, a new hybrid of C. bicolor $\times$ L. elegm, obtained by M. Ce. Maron, who has dencribed itis the Revue Horticole for September 1; the flower in well expunded, measuring 7 inchen across, the wphls are from 23 to $3 \frac{1}{4}$ inches long, in width from th ${ }^{3}$ of an inch, of a delicate violet-rone tint; tha petala, of the name colouring as the repall, at a little broader, are waved along the edges. Th lip is of a shape quite new among Cattleyas, Iti recarved to the tip of the column, and showa a phan surface slightly carved back and wavy all round, of deep lilac colour with a white border at the tip; the length is $1 \frac{1}{4}$ incher, and the breadth from 1 toll inch, the qynonteme is white, and the edgen of the which it envelops are also white and open in breadth of $\frac{3}{4}$ inch. A Certificate was granted to $L$, L. De Smet-Doviver, 'for Anisogonia decumith, 1 most distinct and still rare Fern; foliage thick, is. dented, the dark green colour gives it a resemblam to a dwarf Zamia; it in a viviparous variety, of med beauty, the petioles of the fronds are covered mith bads ; a very ornamental species. Mdlle. Evaimm Goequier ottained an award for a collection of ent Cactus Dahliaw, among them were the followiag fin varietien, Charming Bride, Empress of India, Luly Montague, Juarezi or Etoile de Diable, Stanieg, Salmon Queen, Asia, Madame Burel, and Sir Trem Lawrence. Cartificates for flowering were alloted to M. F. Van Driessche, for Geenera Donkolaeri, from G. diacolor $\times$ Glozinia rabra, exhibited with about twenty fine flowers ; to M. G. de Saeahrb, for Gmvillea Preisiii, a new plant from Holland, remarkible for flowering almost continuously through the yent; the very carions flowers have narrow crooked petilh whose red and yellow colourn, they being borne in large quantities, produce a very pretty effect; to $\mathbb{M}$. Pynarrat, for hottlera hamona, a new Gemeriad []] with delicate blue flowers with a large yellow this plant, by hybridiaation, would probably prodia nome interesting new varietien. Ch. D. B.

The Barron Tegtimonial Fund.-A met ing of the General Committee of the above frud was beld at the Hotel Windsor on Treenday aftur noon, when there were present Dr. Masters (Chairman), and Messrn. J. H. Veitch, P. Veitch, H Tarner, P. Barr, G. Gordon, R. Dean, J. Lidib H. B. May, W. Y. Baker, H. Herbst, A. W. Go Week, G. W. Camminf, J. Cheal, Ranger Johnot, and the Hon. Secretaries, Menars. W. Marthall and B. Wynne. Mr. H. J. Veitch accepted the port of Treasarer to the fund. Several lettera were rell from Meares. Satton \& Sons and other persona willo ing to serve on the committee, and promining aifo port. It was resolved to publish the lint of subscribera. The amount already promined is £116 15s. A ab-committee was appointed to arrange detaila,

Stirlina horticultural societr. - Tie annual exhibition of this Society was held in the Pablic Hall on the 5th inst. There were orer 1000 entries, the increase in the entries over lat getr being chiefly in the frait section. The ratious exhibits of Grapey, Peaches, Apricota, Plama, den were of high caltural merit. Pot plants mades fine diaplay. The best collection of planta arranged on tablen for effect was from Mr. Lunt, Keir Gaddent and the 2od prize was taken by Mr. D. Airdith Larbert Houne. The winners of the extras priza for four bunches of Grapes and the Clovenford prisy lef our banches of Grapes, were Mr. W. Ruth-rford Airthrey Castle, and Mr. T. Lant, Keir, respectively. Cat flowers and vegetablen, notwithatanding for vearon, made a good display, the lot place for 1 extra prize for the beat basket of vegetables falinipl to Mr. McNaill, Gargannock House. Other prinep prize-takera were Mr. J. Carmichael, Tonch; Mrim: Waldie, Dollarbeg; Mr. W. W. Kitchie, Polming Mro A. Forguoon, Woodville; and Mro J. Kily Blairdrammond.

Australian Flowers.-The Orient a.-n. Ophir has brought from Sydneg a bouquet of Australian Lilies enclosed within a block of ice. They have been went to the Agent-Cizneral for New Sjath Wales, with the request that he will ank her Majesty's gracion acceptance of them.

Cardiff Exhibition, 1898-Cardiff is laying itself out for an exbibition on a large acale in 1896. As might be expected in a district oo intimately conrected with the cosl and iron induatries, the mining
a faciated atem bearing fifty-four normal flowera, exhibiting the bright red uncally neen in the variety, and one pare white flower in which no trace of colour is to be seen. In fact, it is \& flower of L. specionm album among a number of the red variety.

Nomenclature of Garden Plantb.-The following are the recommendation made by a committee of the society of American florist at the annual metting held at Pittebarg, Pa., from Aug. 20 to 23. 1, the priority of name hall be recognimed as
author for the same; 7, the nomenclature committen shall, in all cases, before pasing judgment fially on alleged synonymor plants, correspond with all the partie directly interested a as to get all the teatimony possible berring on the same; 8 , exception to the report of the nomenclatare committee whall be made to the secretary within sixty dayn after the reading of the report. Such appeal shall be indicated in the report of the ociety by an asteriak, and be referred to the committee for reconnideration the following day.


Fig. 54.-clematis indiviga lobata, in the conservatory cobridor at faleland pare. (see p. 303.)
and engineering sections will be very prominent. Maritime interenta will be well represented, as would be natural at a port where shipmente of coal, coke, and patent fuel in 1894 amounted to $15,316,165$ tons. Other section of the exhibition will embrace the latest developments in electricity, in ecientific inabrumentr, \&c.; while agricultare, horticultare, porte and pastimes will not be overlooked, the latter probably including a water ahow on a big scale. lepresentative men of all clasee have the affair in hand, but Lord Windsor is prenident, Her Majesty the Qurery, patron, and the Prince of Wales will be asked to open the exhibition.

A Fasciated Lilium apeciobum - In Mr. McAmthozis nurnery, Maide Vale, W., there in, at present, a plant of Lilium specionum rubram, witb
belonging to the originator or introducer of a variety 2, the names from foreign countrie thall be rocognised and used exzept those in Japanese, and to be trannlated; 3, the purchaser of anew variety from an originator can by mutual consent between them, change the name, provided the variety has never been disseminated; 4 , when the originator has sold, or consented to such change of name, he has the privilege of aning ach name again; 5 , in registering a name, it muat be accompanied, wherever posible, by a apecimen of the plant or flower, or a complete deacription of the same; 6 , the finding of the secretary of the Corysanthemam, Rose, and kindred acieties shall be considered as authority in cases of complaint or appeal, and in reported cases of plante wrongly named, not coming ander the head of the above societies, thil committee shall give the

A Manure Heap Burnt.-Conaiderable excitement was cansed at South Esling on Sanday afternoon the lat inat, by the audden breaking out of fire in a large heap of manure of aboat seventy losde in the market grounde of Mr. Ronnss, in Gannerabury Lane. The Hounslow branch of the Diatrict Railway runs through the grounds, the railway being crowed by at archway. It was on thil arch, but at a distance of 20 yards from the railway, that the heap, consisting of ordinary atable-dung carted from London, had been placed, and it is believed the fire originated from spontaneous combution. The heap was about' 7 yard in length, 4 yard high, and correapondingly broad, and when the fire was at ite fiercent the heat was intense. Eventually the fireengines were brought to play apon it, and the fames were mbdued, though by the frequent bresking into
flame, there was no doubt a large body of fire within, and water was poured on to it throughout Sanday night. It is underatood Mr. Robins' lons is covered by insurance.

The Society of American Florists had just held its annual meeting at Pittebarg with great anccem. We have nothing like this great ociety in this country, although anch a one might bs inaugurated without mach difficulty. Next year the meeting is to be held at Cleveland, Ohio, under the previdency of William Scort, a florist in Baffalo. Mr. Scott is a mon of Alexander Scott, gardener to Sir George Staunton, at Leigh Park.

Stock takina: August.-The figares representing the trade of Eagland during the past month-imports and exports-are of a satisfactory character. With two exceptions, imports are all in favour of "our side"-the excess in value over the ame month last year baing $£ 2972,781$-the deficit for the eight months past, compared with the same period last year being represented by $£ 1030,524$. Oar export trade shows a ready response to this, and it is worthy of remark-if it be only repetition-that those whose trade with us belps to increase our balance, themselves find their home trade and trade prospecte all the bester for the improved figures. Taking into account the social condition of nations, our Trade and Navigation $R$ ztarns, asy, for the past month and eight months, offer a problem, the colution of which cannot but prove of value to such an can demonstrate the valuen submitted by the officials of the Board of Trade. Take the following excerpts from the "summary" table of importn for the month of August:-

| Tmports, | 1894. | 1805. | Difference. |
| :---: | :---: | :---: | :---: |
| Tutal value of imaports | $31, \boldsymbol{x}_{88,521}$ | $\frac{\mathcal{E}}{34,611,305}$ | $\begin{gathered} \mathcal{L} \\ +2,972,784 \end{gathered}$ |
| (A.) Articles of food and drink - dnty |  |  |  |
| free ... ..e ... | 11,903,4.6 | 12,514,364 | +605,938 |
| (B.) Articles of food and drink-dutiable | 1,801,632 | 2,306,484 | +504,882 |
| Raw materials for textile manufactures ...s ... ... | 2,418,420 | 2,834,508 | +388,088 |
| Raw materialy for sundry industries and manufactures ... | 4,312,360 | 5,080,190 | $+537.830$ |
| (A.) Miscellaneous articlea | 1,133,008 | 1,215,758 | +83.755 |
| B.) Parcel Past a. | 71,779 | 73,130 | +1,351 |

It is worthy of notice that some journal are now laking atock of what the foreigner applie us with in the shape of "food"-almost an if the figures constituted the record of a new discovery; and no we here reproduce our unal excerpt from the general figares relating to the imports of fruite, roots, and vegetable:

| imports. | 1804. | 1895. | Difference. |
| :---: | :---: | :---: | :---: |
| Truite, raw :- |  |  |  |
| Apple .ow .o.bush. | 338,310 | 192,320 | -145.790 |
| Cherries ... ... ", | 522 | 2,128 | -145.790 |
| Plums ... ... | 422,866 | 187,389 | +1,608 |
| Pears | 467100 | 19555 | - |
| Grapes | 117,213 | 151.183 | -271.548 |
| Unenumerated | 244,675 | 2243-8 |  |
| Oaions | 389,408 | 534.712 | -20,308 |
| Potatos ... ... cwt. |  |  | +14.,301 |
| Vegetables, raw, unenu- | ${ }^{51,463}$ | 97,314 | $+45,851$ |
| merated ... ... value | $\stackrel{\mathscr{E}}{148,876}$ | $\stackrel{£}{170,860}$ | $\begin{gathered} \ell \\ +24,054 \end{gathered}$ |

The lewon: convejed by thene figures have sooften been stated or "black-boarded," that further notice would be aurplasage. Jat hore, it may not be unfrom "litule Guernee" items concerning our importa featares of interest "-an inland postensing many flowers, vegetables, for our home growers of fruit, 36,000 inhabitante, there are not that with about pervow Who grow crop for exportation-m 1,500
sway hundreds of thousand of packagem yearly, and returning a gros income of more than $£ 500,000$. The chief crops are indoor crops of Tomatos, Grapen, French Beans, Melons, and flowers; of outdoor crops, there are carly Potatos, Broccoli, and flowers. Of these productions, Tomatos are the most important. In our last Stock-taking, deserved prominence was given to light railway as one of the remedies for the relief of agricultural depression; it is interesting to notice now that thers is some prospect of the commencement of the proponed Chipstead Valley line, the "bill to enable" having been passed, and the Board of Trade having been communicated with for power to construct the line, with certain modifications. The cont of the line is about $£ 60,000$, or $£ 10.000$ per mile-we heartily with the cheme succest. Road locomotion is also interesting the Institute of Engineert, who invite papers in competition for prize on the subject of motors, electricity, mineral oils, compressed gam, \&c.; and it may not be inopportune to draw attention to the experiment made mome thirty jears aince in the manufacture of gas from all sorts of vegetable refuse. These are carried on in London, and may atill be remembered by some of our interested readers; the Great Eastern Railway Company are now using a modification of this syatem. On the whole, the subject of light railways and road locomotion al adapted to the wants of tillers of the soil eems to have taken good hold. The aubject of

## Exports

for the past month in a very interesting one. Here the figures thow an increase of $£ 1,900,255$, the figure being for Augurt, 1894, £ 18581,240 , as against $£ 20.481,495$ for the month jast cloved. All items show an increase with the exception of animals (living) $£ 10.813$, and of $£ 10,694$ in machinery and mill-work. The excens in value of exporte for the past eight monthy of the year is $£ 3,295.246-$ that is, $£ 147,158,497$, againat $£ 143,863,251$ in the corresponding eight months of 1891. In all this we see an incentive to activity in the home trade, which means an increase of employment and promperity among the workern.
"The Botanical Magazine."-The plante figured in the September number are the following: -

Helianthus debilis, Nuttall.-Thin is the asme plant as figured by us, 1895, i., p. 167, f. 21, as H. debilis var. cacamerifolius. Sir Joseper Hooker unites H. pracoz also with this specien. It is an annual plant, which doen well in bed in the ammer; t. 7432 .

Rumex hymenosepalus, Torrey. - Thin in the Canaigre plant, which is uad for tanning parposes, the root being the part used. It in a native of New Mexico and Arizona; t. 7433.

Cleyera Fortunei, Hook. f., in Gard. Chron., 1895, i., p. 10 ; t. 7434.

Atraphaxis Musohketowi, Krasenov. - A hardy Polygonaceoul thrab, with glabrous, Ianceolate leaven, and terminal many-fowered racemen of amall piokioh flowera. It is a native of the Alatan Mountainn, t. 7435.

Richardia Rehmanni, N. E. Br. See Gard. Chron, 1893, iio, 564 , nub nom. R. Lehmanni ; t. 7436.

Edingurgh.-A splendid how wa, held in the Waverley Market on September 11. There were over 2,100 entrien, about half of them in the fruit clases, but we are unable to give a detailed report
n our present imue. n our present isuce.

Cheshunt, Wormley, and District Horticultural Mutual Improvement Society. The fortnightly meeting was held on Tharaday, in St. Mary' Hall, Chemhant, Mr. Georae Padl prenided. Over 300 member were present to bear Mr. James Dovelas, of Great Gemien, Ilford, give an excellent lecture on "The Carnation." Mr. Dovalas gare a thorough deacription of the Carnation, of it origin, and of the progress the plent has made up to the prosent time. Ho then dealt with ite propa-
gation by seede, layering and cutting, the most nith able moil, the flowering period, and cloned with some remarks upon the classification of Carnation and Picotees. D aring a short discuesion, Mr, Gronem Padl alluded to the practice of dreming the blooms Mr. W. L. Yates referred to the gout diemm attacking "Mrs. Reynolds Hole," and the faggoid direase upon the Malmaison section, two dineant for which there is no remedy known. Mr. Dorach, having replied to questions pat to him, Mr. Josere Rochford proposed a hearty vote of thanks to bila for his interesting and instructive paper, which wu carried unanimounly. Mr. Thomas Rocaford wh thanked for sending decorative plants to adorn the hall. The next meeting will be held on Thurudy, September 19, in the Taraford Coffoe Room, when Mr. J. Fiabss, of Hertford, will deliver a lectare Dahlias.

City Corporation Marketr.-It har bem thought for some time past that " omething mu about to be done" with the vegetable and fin markets attached to the Central Market in Was Smithfield, and the other day it was announced by the daily Press that both of these were to bo abolished. Some outsiders had come to the cenclusion that the Corporation had been offered a pries for both sites and the buildings thereupon afficient to recoup the capital expended. One market no port saya:-"Fiom the City head-quarters I ham received information that no decision whatever ha been come to respecting the two markets, though the matter has been under discasaion by the come. mittee-probably nos for the firat time in the par two yearn." It would be a pity, in the interest of the public, that anything ave "improvement" chould interfere with the markets in question.

A Vegetarian luncheon.-At the Vegetable Show on Tuesday last, at Chiswick, a novel and interesting, we can scarcely asy eatisfactery, feature was the lancheon. We append the menu, wilith may be of interest:-

MENU.
2s. 8d. a head. Entrees.
Vienna Pie and Bretroot.
Mushroom and Potato Patty, Greea Peas and Mint sham. Haricot and Egg Pie with Salad.
Lentil Sausage Roll.
Melton Mowbray Yie and Pickled Wainuts.
Savoury Patty and Mired Pick!es.
Salats.
Tomato Salad and Mayonaaise Sauce.
Mired Salad and Egg.
Cucumber, Beetroot, Lettu:e, Waterercms, Radistur, Celery and Tomatos.

Cherse.
Cheddar, Gorgonzola, and Stilton.
SWEETS.
Red Currant and Apple Pie.
$\Delta$ pricot Tartlet and Cream.
Damson Tart.
Custard Tartlets.
Blanc Mange and Fruit.
Jellies.
Boiled Cup Cuatarde.
Stewed Apricots.
Pineapple.
Plams.
, Bartlett Pears.
Black Carrants and Raspberries,
Fresh Fruits, varions.
Sundries.
Fgg and Tomato Sandwiches.
Cheese Bandwiches.
Rolls, Biscuits, Butter, Cherry Cake, Sultana Cake, aud Seed Cake.
Ten, Coffee, Chocolate, Lime Juice, and Sols. Home mado Lemonade, Egg and Milk, Milk, and Kops Ale.

## Neaplititan.

Ices.
The Kent Champion Belt Competition The Challenge Belt offered by Mesmrn. H. Canyrita Sows, of Swanley, to the A mateur or Cottage Gurden Association in Kent, who can show the bet arim of vegetablea, has this season been won by the wh met Society from the Society at Rodmernham, who ha held it during the pant year.

## CLEMATIS.

Anong climbern, none are more uneful or more beautiful than the pecies of Clematis. This week we give figure of two of the most useful. The one, C. indivisa var. lobats, in a New Zealand opecie with evergreen foliage (see fig. 54, p. 301). It is admirably adapted for conservatory decoration or for cus flowers. It makea an excellent plant for covering pillais, or for any other purpose for which greenhoase climbers are required. Bat the ases of this charming silverywhite flowered plant do not end with it atility
C. montana is hardy, and has deciduous foliage. Nothing can be more beautiful as a trailer to cover the fronte of houses (see fig. 55). A country village we passed through last apring bad almont every house completely draped with this plant, and the profation of white atarry bloom formed a floral picture, the magnificence of which it would be hard to excel. It does mach better when allowed to ramble at itw own discretion than when cut back or formally trained. The illastration we give is of a plant covering the porch of the renidence of G. Ratcliff Steel, Eisq, at Bexley.


Fig. 55.-clematis montana, hardy creeper, on the besidencr of (f, ratcliff steel, esq.
as a climber, beatiful though it be when no employed, as will be seen by reference to our illastration. One of the beat usen to which we have seen the plant put was an a decorative subject for the table. They were grown in 6 or 8 -inch pots, and were kept well cat back to hard wood, which was trained round stick to form a bushy head. When $s$ grown, they are beautifal object for the table, or for indoor and conservatory decoration, the profuion of white flower: carried well out from the bright green foliage having a charming effect. Then they may bo used for growing in baskets for hanging in lofty conservatories. For thi purpose it requires to be treated the same an if grown in pote, the length of the atem being restricted, but an many of them as ponible encouraged to droop over the barket.

## home Correspondenoe,

THE BLACK RASPbERRY. - In your isvue of Jaly 20 you allude to the Black Raspberry, or Black Capa, as we call them here. The improved varietie are grown by huadreds of acrea sll over the northern United States. The fruit is dried in vatt quantities when the price runn low, and in its dried atate it mesta with a great demand in sections of this country, suchas mining or monatainous districts, where ordinary fruita cannot be grown. Erery hounekeeper here appreciaten them for canning, and uses from 1 to 3 bashels for this parpose, and he mast be an epicare indeed, who could not enjoy it rich, full flavour in pies. or at canned fruit at the tem-table. I enclose you particalare of a newly-iotroduced variety. The cut wai made from a photograph, the
accuracy of which I can rouch for. The cut ahow the original bash, which is nine yeara old from seed. The plant is over 9 feet high, but was much higher before the fraiting-cane were cut back. Ifs fraite are large, and of a dull parple colour. Mr. T..T. Thompan, the ownar of the plant, commenced gathering the fruit thit season on Jaly 8, and gathered coutinuoutly (Sundays excepted) until Augut 12, a period of five week. Mr. Thompan, who reaider at the village of Oseida, N.Y., sold hil frait as fant as picked to a gentleman, who dittributed it to the neighbouring townand villaget, receiving as comminsion 1 cent $=$ one hall-penny per quart for handling. Think of this percentage, you fruit growers of Kant; do you get such concientious middle-men as this one? The fruit has netted the grower nine and ten cent per quart (42d. and 5 D .), and nomething like 40000 quarte have been wold this aeanon. The original plant in 1893 bore twentyeight quarts of fruit, certainly a large crop for one plant, however large. John Charlton, Rochester, N. Y. U.S.A.

WHITE WARRINGTON GOOBEBERRY. - Not unccmmon in private garden near Aberdeen; and at least two of the leading nurserymen there have it in atock. Deil.

THE BEST SUMMER DRINK. - It it not nufficiently known, that of all the varietie of beveragea, which inclade ginger-beer, lemonade, Nettle-beer, \&c, there is none equal to that made from the poorest and worst of the windfall Apples, and it can be made at a cost of about one half-penny per quart. Boil the Apples in water to a pulp, any quantity, from 1 to 2 lb . per gallon; add augar to taste, ferment with yeast in the uanal way, and bottle. It is ready the day after bottling, but doen not remain at ita bent for many days, and for thim reanon mall brewings are preferable. Use the Apple which are worthleas for any other purpose; the experiment may be made at a cost of twopence, and once tried, it will become a permanent practice. Where honey in plentiful, it is preferable to sugar; but the fermentation with this is very active, and atrong bottle must be used. Thos. Fictcher, Grappenhall, Cheshire.

WIGTARIA CHINENAIS, - I cannot write with authority of any other epecien or variety. But haviog seen and handled some fine apecimens of the above, I deaire to thank "W. J. B." for his very informing article (pp. 237, 238). We have no hardy climber of equal naefulness and merit, and it is so perfectly hardy as seldom to be injured by auch frosts as we had in February of this year. In fact, it seem rather to like frost than otherwise. I have never seen the Wistaria more heavily laden with blossom than this jear. Daring the seaton I have seen ome plants clothing an area of 400 equare feet or more, one mass of bloom, the only trace of the bitter cold of Febraary being that the foliage wat lighter and morescant than uanal. These amptoms of punimment, however, pased away as the numer advanced, and now, early in September, the plant generally as verdant as anasl, and even more thickly furnished with autumn bloom, which has been abnormally plentiful on mont of the larger plant all through Augast. In not a few gardens the second bloom is more valued than the first. It lasts longer, the racemes are shorter, more slender, and frequently intermized with leave and graceful branchlete, choica admirable material for indoor furnishing, an well as for chante effect over houses or in landscaps. Neither does the recond blooming which seems quite natural to all the finer apecimens in the open air appear to idjare or weaken the stamins of Wistarias, or aenvibly diminish the profusion of the first bloom. If it did the latter, the second harvest of beauty should atill be welcomed. For if the Wistaria has a fuult it in thes the first blooms cannot be fally seen for the crnsh. For telling pointe on walls and arches the longth and beauty of the racemes have been much enhaveed by a timely thinning of the crowded flower-buds. In addition to the normal type, W. sinencia, I have tried the white, the double, and the variegated-leaved varieties of the ame. The latter is what gardeners call miffy, and eldom grows well. Following the rule of to many variegated plant the more variegation the lese growth, the more green the more. There in auch a pleasing variety and play of colour in the normal leaven and branchlets of the Wintaria sinenais, that the plant could hardly be improved by the asoumption of ailver or golden variations or variegations. Ponsibly the plant think so aleo. and for this or other less simple ressons, call a halt to growth when arrayed in new livery,

The white variety seldom or never grows, like the so-called blue or parple. This seems singular, bat so it in. Had the leaver been white, or always paler than the common form, we might natarally have expected a more weakly growth, and fewer flowera, from the redaction of the aupply of chlorophyll. But we hardly look to the flowers as greatly adding to or dedacting from the vital soarce of vigour and life Then, again, where the leaves of white Wistarias are paler than the parple, it must not always be ausumed that they are so in virtue of their white flowers ; for, as alresdy stated, there is a wide play of colour on the leaves of parple-coloured Wistarias, The weaker the plant, from whatever canse, the paler their leaves. Hence, it appears as if lack of strength were as potent a bleacher as lack of colour strength were as potent a bleacher as lack of colour variety of Wistaria sinentia never, so far as my experience goes, covert anything approaching the sams area as the common coloured sort. Has any reader of the Gardeners' Chronicle ever seen a white Wistaria in England covering an area of 200 feet, or doable Wistariae of any colour rivalling the single one in vigour or amount of growth? With the single advantage of preserving the bloom longer, the doubling of the blooms of Wistaria is a doubtful benefit, and robs them not a litile of their grace and beanty. Permit me to say in conclusion, that the Scotch Laburnum is the best pair and prop for the Wistaria sinenais; these two planted in good soils giving e most artistic account of themselves on lawns or in landscapes. The only objection to such matchings for effect is the disparity of life between the two. For while in our climate the common Wistaria will live for centuries, the Lsburnum is comparatively ahort-lived. It will live mach longer, however, and bear up the additional burden of ite beartifal companion all the better if the seed-poda of the Labarnam are picked off soon after the flowera fade, D. T. Fish.

THE FRENCH CLIMBING BEAN.-"H, E," at p. $272^{3}$ states:-"It is a pity the Frait Committee, \&ce, thould have raised the question as to whether Mesarn. Veitch \& Son or Mesers. Sutton \& Sons have the prior claim to the name of this Bean." I beg to state the committee have done nothing of the sort; the committee decided that both were identical-that much was within it powers to determine. As to the rightful name, the committee have nothing to do. That may be or may not be a matter for the Council to determine; but the Frait Committee neither raised, nor considered it bad claim to raise, such a question. A. Dean.

THE R. H. B. AND MR. BARRON. - The treatment (good or bad) which Mr. Barron has received from the Council of the R. H. S. is the leading topic of discussion just now at every flower show, or other place where horticultarists meet, and the expresions of diaguest at the way in which the "retirement" of Mr. Barron has been initiated, and is apparently to be accermplished, are neither fewnor complimentary. As a Fellow of the Society of zome years atanding, and a steady supporter of the good work it has done in recent years since Chiswick began to be renovated, and the valuable experimental and "teating" work carried on there with such remarkable diligence, okill, and success, I regret exceedingly that the fair name of the Society ehould be mixed ap with auch an unpopalar deed as the Council has committed. The plausible letter isunad by the Council laat week, and now going the rourd of the paperi, has only made matters worse, if which Fellowe snd the gardening of the points Which Fellows, and the gardening fraternity, are good it is likely to do, it might asw, well been foft the written, or at least anprinted. What we want to know, withoat any ambiguity, is (1.) Who initiated (2.) Who were Mr. Barron, and for what reason? (2) Who were the "committee" of experte who inspected Chiswick Garden and the work carried on there, and what was the natare of their report? and (3.) What benefit that Council think the society will derive from the transaction should their ends be accomplished? A plain anawer to thene quastions, without further beating about the buth, will prove far more raluable to the Fellows and supporters of the aociety than any such vuave Seotland, September 11, 1895.

The correapondence in connection with thin circumatance in recent insuen has drifted into an actempt to draw comparisone of the work done at to your correapondent, "Head," with, sccording
magnitude, importance, and the necemsary qualifications for control and direction, the private garden comes out an easy first. There are but few gardeners, now-a-days, so ill-informed as not to know that the great dissimilarity of the work, both in anbject and detail, at once prevents any fair comparison being made, and the attempt to do so, fairly or unfairly, only shows ignorance, indeed, to me the whole tenor of "Head", letter is obviously one-sided as to give one the impression that he is a man with an "axe to grind." What is the regalar routine work of a private garden, to a gardener any way, in compariaon with the every-varying, ever-widening, pystematic and scientific operations-I nearly said fads-of an experimental garden, as Chiswick in now recognimed

Hundreds of these experimental trials, \&c., are yearly made and carried out with the greatest exactitude, and the whole recorded and tabulated for future reference. Irrespective of all this, there is also, I am torry to admit, an immense amount of routine work to be done, afficient to tax the abilities of many of our best gardeners. Under the yatem upon which Chiswick was atarted and is carried on, this routine work could not be diapensed with, but we are now within a measared distance when at least one-half can well be avoided for the future, to the adrentage of the gardens and to all tho interented in their welfare. The Council has now determined to introduce radical change in the administration and organisation of Chiswick Gardens and its work, and thil announcement will arely be hailed with the keeneat atisfaction by every trie horticultarist in the country-this much we gather from the letter from the council, see p. 270. Butwhy, may I ask, was this letter o long delayed? Had they "in the early part of this year," whon these changes were determined upon, pablished the fact of their intended introdaction, much discussion and no little harsh feeling would have been avoided, and one almost feels that their tardy recognition and admission of Mr. Barron's devoted services was only made in consequence. However, all's well that ends well, and so long as the gardening public know that the new arrangements have been carried out in a apirit of friendship, and of this we have the ammurance both of the Coancil and Mr. Barron, all will be atisfied. In corclusion, then, let as hope that the reorganisation of Chiswick may be on the very broadent lines for the advancement of horticulture. In it adminittration heretofore Chiswick has been too conservative -too seclusive. There are some countrie from whose book we bhould not hesitate to take a leaf, and that of Franca farnishes na with a model for what Chiswick should become-a national achool of horticulture, with a curriculum equal, at least, to that of Versailles. The nucleus of such a school already exista, although admittedly of amall extent: but in these days of cheap land this should prove but a minor obatacle, to be overcome at will, with many posible fature advantages. Such a school thould be recognised and subsidized by the State, for in no other countryare there mo many outlet for really clever acientific men, in positions which at present are mostly filled by foreigners. One more word, and this with respect to the alary the Council is offering to Mr. Barron's anccessor. As the possibilities of Chiswick for good are almost infinite, $£ 200$ per annam without a house is an inaufficient alary for a thoroughly qualified man, and as the days of mediocrity are past in men, so they should be in alarien. They will therefore do well to increas this to $£ 300$ per annum, or $£ 250$ and hoase. Introapector, England.

As Fellow of the Royal Horticultural Society of London, I have read "with aurprise and regret" the half-hearted and ambiguoas apology published by the Secretary by order of the Conncil. An an explanation it in lamentably weak, and obscure the main point by introducing questions of Conncil weat which most of at are agreed. The Council were perfectly within their righte in deniring
to remove Mr. Barron or any other on to remove Mr. Barron or any other of the paid officials of the Society; but the method adopted were to undignified, and so unconstitutional, as to have excited much distrust, and to have caused serious apprehensions to arise as to the fature proper conduct of the Society'n basinen. Not only ham the Chiswick Board been ignored, and so ar innalted, bat all true British gardeners and basiness men believe that mome amount of injuntice has been meted out to Mr. Barron himself, alter his long and honourable service on behalf of the Society. Something very much of the nature of a necret conspiracy appeare to have been
to have been drawn up and aigned by the followime members of Council and others, viz:-C. E. Shes (Chairman), W. Wilks (paid Secretary), H. Solfa
Leonard, Jame: Douglas, Harrv Williams, J. Wif Leonard, James Douglas, Harro Williams, J. Wil lard, E. Hill, J. Jaques, and N. A. Barnet. Thn Council. in tendering "a frank expression of regro" to the Garden Board for having ignored their ver existence, seem to forget that something
in due to Fellows of the Society, and to in due to Fellows of the Society, and to gardem generally, who are now asking all norts of que. tions about these unbusiness - like proceeding The Council have really done one of two thion -they have either been honest, and courtem and above-board in retiring Mr. Barron, they have been anderhanded and indiscreet, arenil not actually discourteoas, to an old and loni official, and also, through him, to gardem generally. We wish to know the truth, the whe trath, and nothing bat the trath of this misenh affair. It is a principle that is involved, a not in any way a merely persoaal matter. Whan the report that was drawn ap and aigned by thom whose names we have given above? If it is oot forthcoming, confidence in the society, and its convel and secretary will be most seriously shaken, Lh the council direct the secretary to lay the whole thing bare; if they have done the right thing in the best manner, they have nothing to fear, but if them has been anything discourteous, or of the nature of private intrigue, then let as judge on the dinet evidence-not to produce or pablish the report and correspondence-at once, will only defer the trobble until the society's annual meeting. Sarely the Royal Horticultural Society of Eogland has no noed of a hagger-magger policy-the society must be liko Casar's wife-and to risk its power for good, by not allaying the diacontent now raised, would bo nicide in the extrems. F. R. H. S, Ire'and.

RU8T" IN BEGONIA8.-Having charge of m extensive collection of Begonias, I have found con siderable injary caused by the co-called "rak" mentioned in your last issue by Mr. W. W. Shent at p. 268. Like him, I have heard it attribated th a fangus and to excessive moisture in the howe Neither of these reasons appeared to me to be ative factory, and a close examination of injured plath has revealed the presence of large numbers of whits insects, barely visible to the naked eye. I beliere these to be the cause of the mischief, and have fona frequent famigation to be the only effectual remedy. I agree with Mr. Sheath that too high a temperstin 0 in spring in favourable to the rapid spread of thin terrible pest. Unfortanately, it is not confined to Begonias, as Achimenes, Eranthemams, and other plants frequently suffer in the same manner. W. $K_{0}$

THE BERMUDA LILY.-Between 1878 and 1888 the enquiry for balbs of Liliam longifloram from merchants who trade with Bermude, way so grean that it taxed the resources of both Holan ame Japan to apply the needs of the Island. Can nombl
one tell as if the produce of these heary annul consigaments ever left its hores bearing the asm name? Mr. Bull, of Chelses, was, I believe, the first London house to make Liliam Harriaik noon here, and directly our large market growers toor a it, several balb firms obsained it extensively, asem the demand has been maintained until the prean time. This year, however, a mart amad and planteman has initiated a ayndicate in Bermada, abouf the combination is strong enough to control a fhet ninety per cent. of the past seasons crop. are anccessfal, a nice haul will be landed in in mind montly from this country. When it is bion in that Bermuda is a British possension, is man.

THE CHIawICK TRIAL8. - In reading an secone at p. 234 of the amount of time at Chiswick, one is tempted to sus in at sll needfal for such a garden to eag trin in auch work, eapecislly meein are practically of
or to the trade. trade. It in a well-known fact by themetres to a few well-knowa and if you picts by themselves or their neighbours; and up promicuously any nurseryman's catalog trials they rely upon, but the trials gardens and preas notices, at proved overy page. Many gardener receive applications to teat garden inecticides, \&xc., than they can entertain. sense or reason is there in encumberig , with the labour of proving the heights, colout
of flowering, \&c., of 500 Phloxer, and a proportionste number of common garden vegetable and plant that are hardly ever heard of afterwards? There only two varietie of Phloxe in cultivation, and about two dozen of thene embrace the bent. I asw them all set out in a small patch in Dobbie's nursery at Kotheay the other das. Are there not plenty of abject of far more permanent interest and importance in gardening to prove than seedmen'a noveltiep, and which would cost about a much time as it would do to write the labels for 500 Phlozes alone? It has often cccarred to me that there are many long-diapated matter of cultare, \&ce, in horticulture that an experimental garden might aet at rest by a very little patient experiment carried out conscientiously, in a philosophic and acientific spirit. For example, the kind of soil, texture, and depth, \&cc., for a Vine border is a queation still ansettled and wrangled over, notwithstanding Chiswick opportanities. The "turfy fibre " theory is the most popular atill, but it has never been demonstrated that sach a border is any better (if as good) than one made of good garden soil judiciouly enriched. Yet the tart border has cost, in handreds, if not thousands of gardens, probably 70 per cent. more in cash than as good a border of common ail would have cost, and I am atrongly of opinion that a large portion of that 70 per cent. hes been lost-sacrificed to "rule of thamb,"-and that Lindley was right forty years ago, if not more, when be aad that a "fiaely divided noil" wae the beat for Vinen, so long an it was permeable. Nambere of other problems, involving mach time and expense, might be suggested that an experimental garden might concern itself with, leaving the least important, not to say frivolous, mattersalone. Bat to carry out such experiments succesafully it requires a mind open to conviction, and with a Darwinian bent of inveatigation. I would further suggent that if, as is said, some of the glass-housen are "white elephante" on the Society's hands, and Grapen hardly do more than pay expenses, it is not necessary to waste fuel at a high price on them. There is work which they could be devoted to in the cultare of other kinds of froite and trees that prefer a cool etructure all the jear round, and with these namber of urefal test could be made that require little trouble. Head.

PRIzEs AND POINT VALUEs.-It ia a generally held that the award of prize: at flower show to exhibits according to their respective values is the right and proper thing to do, that it seems odd the principle is not generally adopfed. Two things, however, will tell agaiat the adoption: firte, ordi nary practice which regulates prizan arbitrarily and without real regard to the relative merits of the exhibits to each other; and second, the laissez faire principle which so atrongly dominates flower show management, and sanction the continuance of an old ayatem as the best, simply because it is an old and atereotyped practica. At the annual bank holiday show, held at Carshaltoa, Sarrey, Mr. A. H. Smes very kindly originated, and there is now continued, a apecial class for nine vegetables, open to all sabacribers in the district, the prizos bsing a lump sum of five pounds, which, if the competition be large enough, is divided into six. The collectiona are all atrictly pointed, number of marks given being rigidly in accordance with quality. At the recent show there were eight entries in the class, and when all were jadged, it was found that the first mix atood an follow, $61,57,55,49,49$, and 46 pointe, the gradations in quality being in no case very wide. As a reault, the five pound was apportioned into six prizes, thus, $198,4 d_{0}, 178.11 \mathrm{~d}_{\mathrm{o}}, 178.4 \mathrm{~d} ., 15 \mathrm{~s} .6 \mathrm{~d}, 15 \mathrm{~s} .6 \mathrm{~d}$, and $14 s .5 d$., these num bearing an exact relation to the point-value of the exhibits. Had the money been apportioned under the ordinary rule, £2, £1 5s., $15 \mathrm{~s}, 10 \mathrm{~s}, 6 \mathrm{~s}$., $4 \mathrm{~s}_{\mathrm{o}}$, the first collection woald have been awarded 20s. more, and the sixth 11s. 6\%, less, A. D.

JUDGING AT FLOWER SHOWs. - I notice in your answer to correspondents in jour last issue an answer to a question on "Jadging at Flowermown." Kindly allow me to say, I imagine you have been mialed on the nabject. Inatead of a group of plants in pots, the schedule provided for a group of planta for effect, which I contend alters the cave altogether. Esch group was given a apace of 10 feet by 6 feet, or ite equivalent (a circle), the centre of which was the tent-pole, which, of course, had nothing to do really with the group, bat in two case the poles zere furnished so as to give the group a more raished appearance. I think the pole could have been furnished with anjthing-any, cut Bamboos, Iry, mons, \&c.--or left entirely bare, without disqualifying the exhibit. Judge.

CUCUMBER LOCKIE'S PERFECTION.-There gre two houses of this Cucumber in the St. Neot's branch nursery of Messra. Wood \& Ingram, of Hautingdon, the plants having been put out in the end of May. One honae is 100 feet by 15 feet, the amaller 20 feet by 15 feet, and the plants are in boxes formed of planks 1 foot in depth by ame 2 feet in width. The plants atand 4 feet apart in the bozes, and both houses being span-roofed, they are trained up the invide; the depth of soil in which they are growing is aboat 9 inches. What atrikes the viaitor is the admirable condition of the plants. and the wonderful crop of fruit they have produced. It is not too mach to say that a record for produc. tivenas is established; the crop is enormous, and every frait is true to shape, ahowing the fine quality meen in those, the raiser, Mr. Thomas Lnckie, bas been in the habit of exhibitiog. Mr. W. Ratchelous, the foreman at the Sb . Neot' nurery, biated the planto were in good yellow lom enriched with manure, that a little of Beeson'm plant-manure way placed in the soil, and some of the manare with a little most laid on the aurface once a week sad Watered-in. It doe seem at it no variety of Cacamber could be more productive, and no Cacamber be better adapted for market and exhibition parposes, R. $D$.
venidium calendulaceum.-I have baen looking in vain for the year in which thi charming subjoct wal iatrodaced. Ia flower-sed liets it is genarally classed as an annual, and treated in that way it in a delightful garden plent during the summer month. S sma seeds s 0 wn in March in a cold frame, or better still in a geatle bottom heat, will give plant which, if they have ordinary care, will flower in Jaly, and if not allowed to seed will bloom for a consider. able time. Then a sowing whould be made in May for late anmmer and artumn-blooming; and like the Gassnia it is seen atite best late. The flowers are golden-yellow, with a dark brown disc, and it may be appropristaly likened to a glorified pot Marigold. One of its chief feacares is its freedom of bloom. I find it doss best whea planted out in a sunny pot, bat it should $n$ nt want for water. In the somemhat firm esady lomen of the Bedfont seed ground it roots freely, and the plants grow into large siza. $\mathbf{A}$ few ynd ofared it at a high price per packet, and I hava often wondered it he realised a fortuae by doing *o. It well deserven to be more generally grown. R.D.
heuchera banguinea ano hybaio.-Complainte are frequently made that this plant does not flower freely, but nothing could be more astiofactory than its conduct in my garden. It mutt, however, be renewed frequently from cattinge or eed, which ripens plentifally; and exposed situations, awept by cold wind in winter, mast be avoided. Whilet giving it the fall sdrantage of the mid-day sun, it abould be acreened by a wall or hedge on the north aide. In sach situations it flower abandantly, and never more abandantly than last spring, in spite of the aevere winter. I have a variety of a deeper and brighter red than the type, bat it in difficalt to im . prove the pura and distinct colour of the flower as first distribated. Last year a hybrid seedling appeared epontaneously in my garden, more robast than the seed-parant, with flesh-coloured flowers, of which a mecond crop is now out in abandence. I take it to have resulted from $H$. anguinea $\times \mathrm{H}_{\text {. }}$ cylindrica. I think I saw the same in flower last June at Kgw. C. Wolley Dod.
large peaches.-Some Sas Eagle Peaches, of unasual size and finish, have been lately gathered in the gardens at Ketton Hall, Stamford. Tae crop was a mediam one, and the fruits averaged about 1 lb . each. The largeat weighed 17,18 , and $19 \frac{1}{3} \mathrm{oz}$. respectively. The tree is planted in a cool-house in the natural oil. The crops of Peaches and Nectarines in the earlier houses were slso very good, being heary and well finished, and averaging from 14 to 16 oz . in weight. Owing to recent changer at Ketton, Mr. Drabble is debarred from bringing these eplendid frait to any exhibition. A Grower.
aLADIOLUS Bhahzada. - This is one of Mesars. Kelway \& Son's new introductions, and it is remarkable for ite deep dark crimson colour flashed with purple, and its rich parple markings in the throat, and for the stoutaes and fine form of the individual flowern. Two very fine apikes of it were exhibited at the recent flower show at Taunton, and its marked individuality of colour caused it to stand out from the reat of the flowers in the utand. Extreme cantion is now necensary in awarding

Certificates of Merit to new varieties of Gladioli, but of the excellence of this one there could be no doubt. $R$. $D$.

FOOD REQUIREMENTS OF THE CHRYSANTHE-MUM.-Referring to the article upon the above nubjuct of sour correspondent, M. P. Andersen, Which appeared in the issue of Aagast 17, p. 181, and the reply of W. Dykee in September 7, p. 272 , II beg to atate that I agree with Mr. Dgkes that the compost and manurial mixtare o! Mr. Andereen was decidedly deficient in nitrogen. The rate at which the mixtare was used is atated to be one part in 400 of oil, whereas the quantity recommended by me, and of a more concentrated manure, was one part to 250 parts of oil, whiln that eaggested by Mr. Dgkes was atill larger. Your correepondent will also find that I recommended after the potting that the Chrysathemum planta be watered every threa wetk up to the time of flowering with a of water. Mr. Anderaen made the mistake of mixing basic slag and sulphate of ammonis together; hence, not only was the nitrogen of the manure lost an a gas, but the evolation of free ammonia doubtless had a tendency to irjure the growing plante. Starvation and injary thas went hand in hand during the early part of the experiment. Again, the mixture used was lacking in soluble phosphate, owing to the fact that the phosphate in basic slag become available only very slowly, therefore, when this substacce take tbe place of saperphospate, twice as mach mat be employed. Mr. Andersen telle us that his compost appeared to ait the plants much better after so ne montha than at first, showing pretty clearly that the evolation of free ammonia from the soil was injarioas to the plante, and also that the phosphate only began to act afcer the main growth of the Carysanthemume had been made. Two very intereating facta have become clear in the experiment at Rothamated, which have an important bearing apon the relative value of solable and insoluble phosphate of lime; one is, that phosphate of lime, if not taken up at once by the growing plant, becomen fixtd in the soil, and is only recovered by growing plante over long
periode of time. The other in, tiat the capacity of caltivated plante to take ap phosphate of lime exist ing in the toil, diffors in a very remarkable degree. As one illustration, we may elect an experiment with $\mathrm{S}_{\text {wedish Turaips. There were two }}$ plote of land, one receiving 3 cwte. auperphosphate of lime per acre, and the other 6 cWts . per acre of basic alag (ground fine). The roots receiving the superphonphate grew much fater at the begioning than those which had the basic slag. Bat the root with the basic alag continued to grow later into the neason, and eventually gave about equal weight of crop with those receiving euperphophate. It is evident, therefore, that 1 part of phosphate of lime in the form of superphosphate is equal to 2 parts of the phosphate in the form of basic slag. Also that the Swedich Tarnips were not able to take up the phoaphoric acid of the bavic alag until towards the end of the season. It in quite clear that the absence of a soluble phompate of lime in the early tages of plant growth and inafficient nitrogen was the case of failure in Mr. Adersen's Chrysarthemam experiments. J. J. Willis, Harpenden.
apogamic ferns. - Mr. E J. Lowe, in his reference to my article on the above abject, assumes that apoganaic Ferna being destitute of archegonia, cannot yield varieties through their pores, a conclasion he deduce from my quatation from $\mathrm{D}_{3}$ Bary's papers on apogamy in the Botanische Zeitung, and my own remarks thereanent. Ds Bary, however, makes no auch assertion, and my remarks were directed solely to the imposibility of effecting crosves, and in that way combiniag variotal forms in the fashion for which Mr. E. J. Lown hel rendered himself famous among British Forn-cultivators. Within the lat few day he has sent we a number of frond of the created male Fern to demonatrate variation in its progeny, a fact to which I had already alluded in my paper a* indicating exception which Da Bary failed to find. I also said "we have no reanon to annume apogamy is a bar to variation any more than other bad-forming phenomena," which to my mind covers the whole ground of Mr . Lowe's contention. Ansuming, si we munt do, that the spore when shed containa the varietal potency which is eventaally seen in its own (i.e., not crossed) progeny, we are justified in expecting as much variation from apogamic bud an from normal sexual one fertilized by antheridia on same prothallus ; and to
what an extent this aelf-variation may be carried, I demonatrated nome years since at Chiswick by exhibiting a number of most diverse plamose Athyria, passing through all grades from plain to grandicep cristate forme and yet the reanlt of a nowing from one and the ame plant. These for reasons then given at length and generally accepted, certainly owed none of their diversity to crossing although it was little inferior in range to Mr. Lowe's exhibitm, hown to demonatrate the complex effects of multiple parentage. In my plants, however, the variety ran only in three directions, viz, delicacy of diasection, development of folionenens, and extent of terminal crissation, while his, as might be expected from their hybrid origin, showed diversity of all sorts. It is a very curiou biological fact, that the crested male Fern is exceptionally easy to raise from spores, and comes up a a atray in profusion among other nowings, demonatrating, in conjunction with its robut habit of growth, that it non-sexual mode of reproduction is in its favour, and seemingly might be a perpetual factor without any detriment to the continuance of that epecial branch of the species. Chas, T, Druery, FiL.S.

## New Inventions,

## A NEW BUDDING-KNIEE,

Thes new knife differs from all others in make. It is well known to all who practise badding that the hand of the workman han to execate variona mancuare before the bad can be interted in the T cat. The chief difficalty lies in raiving the bark. For this operation it was formerly necensary to turn the knife in the hand. The new badding-knife, invented by the head-gardener of one of the largest nurueries in Germany, Mr. Kaehler, and by Mr. Grunewald, of Tempelhof, near Berlin, enables all the operation to be made withont tarning the knife. The process now is an follows: the bud is cut by the long atraight part of the knife. By the wame part the obverse cut is made. Then the lower point of the triangular apex is laid against this obverse cut, and the lengthwire cut is made by a waving motion. By turning the knife to right and left the bark is separated. Care should be taken that during this action the apper point of the apex remains in the amo position. The bad may be inserted while the knife it raising the bark. By thiaknife (fig. 56) during ten minutes, eventy-five good bud of Acer, Syringa, Plams, Cherrien, Cydonia, \&c., were made before a committee of gardenern. U. D.

## Wrst's Improved Patent Orchid Basket

Is the new Orchid-bakket (see fig. 57), the inventor has made an effort to secure a more thorough watering of the contents than is possible by the wame means in the case of the ordinary basket made of aquare teak rods. The upper innide edges of the otherwise aquare rods are bevelled off with a view to throwing the water towarde the cantre of the bakket. There are alno two extra bevelled rode with flanges inserted between the two top bars, and these make the four sides comparatively level with each other, and therefore a better receptasle for water. It is claimed that following the adoption of this new buket, the rather tedious procesm of dipping bakketn containivg Orchide will be quite unnecemary, at each plant can be equally well satarated by means of a syringe or watering-can.

## Colonial Notes.

## HONG KONG.

Bamtrua chinensis is an erect-growing little Melaftomaceou whrab, attaininge height of about 3 ft , and the only representative of the genus. It makerit home on the north side of the inland at an elevation of about 1,400 feet, and in the immediate vicinity of Aristolochia longifolia, Gordonia anomala, Rhododendron qquamatam, Woodwardia Harlandi, and many other plante. It is an exceedingly pretty thing when in Alower, and on mccount of thiv, there in every
probability that it will be exterminated in Hong Kong in a very few year. Another thing which militates against its chance of existence, is that it grow just outaide a Earopean' private residence. The Chinese mervants are ment out to gather flowers, and, of courae, they cut the first they come acrons, which means Barthea chinensis, when in flower. If they were to cut flowers in a proper manner, there would be no harm done, but these pandala cut the whole ahrab down when they get the chance. The flowera are over 2 inches across, white suffased with pink in colour, and are borne on the ends of the branchen
long, and about $\frac{3}{4}$ inch broad, plicated, and wea. what grass-like in appearance. The rhizomet ner in size from that of a goose-quill to a man's lime finger. The plante which I found were growing a the south side of the island in a comparatively ity situation, not many feet above ea level, whild other collectors have found it in marahy apota the top of one of our high hill.

Aristolochia longifolia is a rare Hong Kong phat and is found growing in the cleftm of rock in nuthe shady situations. The leaves are 6 to 8 incter long, 1 to $1 \frac{1}{2}$ inchen wide, and lanceolate in hup
generally in threes. The leaver are lanceolate in ahape, $2 \frac{1}{2}$ to $3 \frac{1}{6}$ inches long, three-nerved, and on petiole $\frac{2}{2}$ inch in length. The calyx tube is sharply four-angled and $\frac{2}{2}$ inch long, baving subulate lobes 2 line long. The corolla consist of four petals nearly 1 inch in length, and over 를 inch in breadth. The plant flowers in March.

Lagerstroinia Fordii was first found by Mr. Ford a few years ago on Lantao Island. In Auguat last, I found it for the first time in Hong Kong, on the mouth side of the island, growing near the sea, There was only one plant of it, and this was about 10 feet higb, thriving in very little soil on the top of a rock. It is not nuch a showy species an some of the other Lageratrœmias, bat nevertheleme, is a plat well worth cultivating. The flowers are produced in paniclem 3 or 4 inches long, at the end of the branches. The calyx is about 3 lines long,


Fig. 57.-a new style orchid-basket.
downy white on the cutalde, and the tube furrowed, The petale are white, the limbs being about 2 lines across, orbicular in shape, and crimpled on long thin clawn. The leaves are lanceolate, 3 to 4 inches long, and 1 to $1 \frac{1}{2}$ inches wide, on petiolen of a quarter of an inch. When ripe, the capaule are dark brown in colour, owal in thape, and about寒 inch in length.

Pachystoma chinemse, when seen growing amonget long grase, is a pretty little Orchid when in flowfr although it is destitate of leaver at the time. It produces its scapes ranging from 9 inches to 2 feet high, and bearing from six to twelve flowers in April. Each flower is antended by a light brown lanceolate bract, $\frac{3}{4}$ inch long. The eepal are nearly 1 inch
 of a light lilac colour. The petals are the same length and colour an the exals, but only $\frac{1}{8}$ inch in width. The lip is three-Jobed, accate at the base, and crested in the centre. The middle lobe is either light green or yellow, the lateral loben being of the amme colour as the sepale and petals. The capes are theathed in light brown-coloured bract their whole length. After the flower have died away, the leaves appear. These are about 2 feet

The vein are very conspicuous on the under wuth bat less so on the apper. The atems and learem rusty tomentose when joang, but the upper ided the leaves becomen glabrous when old. The fown are produced in April on the old wood neur roots. The inner or upper aide of the periantiti dark parple, the throat being creamy-yellow with few parple pote on it. The month of the parime is fally 2 inches across, and the tube $3 \frac{3}{2}$ incherleen bent in the shape of a hook. The outside of the flower is marked with purple vein and articulation and densely covered with hairs, the general cole of the outside being greenith. When the flowi are fully developed, a very diragreeable odonr in emitted from them, similar to that of other apein of the genus. A plant which I found had upmri of a dozen flowers on it, and ite growthr ware mat 10 feet long. W. J. Tutcher.


Hong Kong Botanic Gardixs.
The annual report on the Botanical and Aforte tation Department of Hong Kong (by the Saptr intendent, Charle Ford, F.L.S.) for the year 18 O is now before an. The climatic and other dififedtion of the season under review, not merely proved escer sively difficalt to cope with, bat, in spite of all effort of the staff, caused serious and lasting iojum to the gardens. Immunity from storms for many yeris past had been evident in the beanty of the plath in 1894 a serie of typhoons, and a adden prolonged drought, did mischief, whick all pracautions taken were powerlens to complow counteract.

A atill more cerions evil was the plague of cter pillars which was prevalent during May and Juth The apecies (Eatricha panctata) multiplied numerounly, that an organised and very ex raid was made againat it, over a thourand $P$ being at one time employed in collecting the pillarn, and bringing them to certain polieen to the authorities at which were empowered ine if them by weight. Over 36 tons of caterpillar were collected, and the price pald for them 4,889,95 dole.

This expense was not the only loss affered, since in apite of all pain taken to collect and deatroy the peat, conaiderable damage was done before it was completely eradicated, since, while affecting nearly all the Pines in the colony, it was eapecially numeron in certain localitien, where many plant were made leafles, and (growing on poor noil) eventually died from it.

Although less atisfactory than those of former years, this report is oo far encouraging in that the difficulties mentioned in it are now marmounted, to that, granted a few favourable season, the gardens will, in condition and financial ponition, soon regain their former standpoint.

## SOCIETIES.

## ROYAL HORTICOLTURAL。

Srptember 5.-A meeting of the Fruit and Vegetable Committee was held et Chiswick on the above diste.
Present: Mr. J. Wright, in the chair; and Messre. G. Norman, J. A. Laing, G. Wythen, W. Farr, W Cammina, A. Dean, and A. F. Barron, Secretary.
The subjects to be examined wera a large collection of come 78 varieties of Pota'os, chiefly new, 76 diverse varieties of Brassica, and some American Tomatos. The Putatos were found to be of very diverse character-some early and ripe, others very late and robust. Disease was found rapidly decimating the leafage in all varieties, and in some othern, owing, no doubt, largely to the excessively prous nature of the soil, to be much affacted with disesse. Some, again, especially those of the Magnum Bonum type, of which there still seem to be so many seedlings raised, had become, through supertuberation, very ungainly, whilst some others were very large. It was noticeable that round-tubered varieties generally had grown out less than kidney forms. Ten sorts of great cropping capacity, and of excellent ap; earance, were selected for cooking, and later these, very admirably served in their coats, were tasted, and the following received three marks:Cockerelı's Seedling, pebble-shaped, white, medium grower, tubers having mealy Regent-like quality; Syon Hcuse Pro lific, late, sirong grower, oval, capital quality; Birmingbam, Triumph, now pretty well known, round, strong grower-very good; and Pride of Tonbridge (Webber), flattish round, rough good; and Pride of Ton
Cablapas, - The whole of the large trial of Brassica is from a sowing of seed made May 19. Two of the earlier varieties
were dealt with at a previous visit. On this ocrasion, after innpecting the entire group carefully, the committee resolved to select the best from typez, and the old Dwarf Early York, as a nummer Cabb ge? Sutton's Little Gem, a capital stock, greener and berter than Little Pixie; Leeds Market, the best of the larger section, s,ecially good for market field culture : Winnigatadt, a very green pointed-heart varioty, that always stands drought wouderfully well; and St. John's Day, the tenderest eating, for it eats like a Colewort, are the best. O all the dwarler forms of fiat or Drumbead Cabbages, each had three mark. This latter is a specially valuable Cabbage from summer-sowings to turn-in duriog antumn and winter. Of the two forms of Red Cabbage, the old large and the newer Dwari Early Biood-red, the committee regarded the latter as far the
best, and gave three marks to the Erfurt Blood-red (Benary) best, and gave three marks to the Erfurt Blood-red (Benary) and Sutton's Blood. red, as the best stock. A capital stock of The comparative absence of uniformity in many of the stock was noticed, showing that the greatest care is needed in seed growing to keep Cabbage stocks perfectly true.
The Tomato plants in pots, chiefly of American strains, did not exhibit any advance over varieties previously certificated, and well known in commerce. It is worthy of note, too, in relation to home-raised varieties, that many highly lauded elsewhere, when tried at Chiswick neem to be very much of a muchness indeed with other varieties.

September 10.-On Tueaday last a vegetable exbibition by the Royal Horticultural Society, which was arranged to take place at Chiswich, was held after effort to promote such an exhibition ander other auspicea had failed. The weather wa decidedly more pleasat than on other occasions at Chiswick and the show of vegetables from the point of view of quality was satisfactory, even if the namber of competitors was rather amaller than looked for. As the gardens themselves were looking well, and there were excellent collpctions of Dahlias, frait, and other thirgs, the viait to Chiswick wes an enjoyable one. For further remarks on this exhibition, see p. 300 .

## Floral Committee.

Preent: W. Marthall, Eqqu, in the chair; and Meorr, Chat. E. Pearroon, Chas. Jeffirier, J. H. Fitt, R. Dean, W. Bain, Geo. Stevens, George Gordon, Jno. Laing, Jas. Walker, Robto Owen, Harry Turner J. Jennings, Geo. Panl, Jno. Fraser, H. Herbat, J. T. Bennett Poë, Ed, Mawley, and J. D. Pawle.

Mesers. Barr \& Son, King Street, Covent Garden, exhibited a miscellaneous collection of hardy flowers, containing the very best of the species now in flower, pereunial and annual Asters, Violas, Tiaridias, Liliums in variety, perennal Sumflowera, Pysethrums, and a colloction of rarieties of Phioxes
were conspicuous. Amongat the variet ies of phlozes, an were consplcuous. Amongat the varieties of Phlores, and
Award of Merit was recommended to Leonardo da Vinci, a capital variety, with large white flowers, having rose centre,
bright-looking and very pretty. Messrs. MAkr \& So: had bright-looking and very pretty. Messrs. HAhr \& SoN had
also a collection of plants of bedding Antirrhinums in many colours, and plants of a dwarf strain, growng about 10 inches higb, very compact and free-flowering. A pretty white variety, about 15 inches high, extremely floriferous, should also be mentioned, it is called Queen of the North (Silver Flora Medal).
Some carden Roses in miscellaneous varisty were from Messrs. WM. Paul \& Sons, Waltham Croes Nurseries, Herts. The blooms, cut with long atems and foliage, and tied in bunches, were exhibited in an altractive manner. The Duke of York, winter-floworing China Rose, was well exhibited, and with W. A. Richardoon and Marie Van Houlte, form a vepy excellent trio in this nection of 10 saed dinean Mab in anow differentshades of Apricot, vary pretty
to become popular (Silver Flora Medsi).
A new perennial Sunflower called Stole Park Favourite, was exhibited by Mr. J. HUGHEs, Stoke Park Gardens, Guildford. The plants are said to grow 5 to 6 feet high, of good branching habit. The blooms are produced on long atem, and are suitable for furvishing vases, \&cc. The flower is an extra bright one, of medium size (Award of Merit).
Mesors. Bobt. Veitch \& Son, Exeter, had a few bunches of Nemesia strumosa. Mr. Walter Salmon, Ivy Cottages, Elder Road, West Norwood, ezhibited a collection of tall French Marigolds and Eome double flowers of Zinnia elegans, beside a general collection of hardy flowers, including Asters in variety. Violas. Salpiglcssis, Dianthus, Dahlias Asters in varity, Violas, Salpiglcssis, Dianthus,
Miss Hudson, Gunnersbury Eouse Gardens, was awarded a Silver Banksian Medal for a decorative exhibit of Dahlias, and Silver Banhsian Medal for a decorative exhibit of Dahlias, and
a similar medal was obtained by Mr. A. W $\boldsymbol{T}$ Terer, Knap Hill a similar medal was obtained by Mr, A. W』terer, Knap Hill Nursery, near Woling, who exbibited scme
effective blue Spruce, Picea pangens argentel.

## Dainlias.

The collections of Dahlias flled a considerable portion oi one of the tents with their brilliance. Mr. T. S. WARE, raised backgrcund of panels of Cactusard decorative varietics ronted ifh bunches of bright Pompons. Of true Cactils arieties, there were excellent examples of
Gem, Mra. A. Beck, new, pule orange-scarlet, fine Cactus shape; Gloriosa, Miss V. Morgan, Bertha Mawley, Matchlers, Mrs. Francis Fell, white, with slight pale yollowish-green centre-a decided acquigition to the wite forms if it will maintain this character; Ledy Penzance, Robt Cannell, Countess best were Harry Freeman, Jonn Hi Roach Fmpresetier, the best were Harry Freeman, John H. Roach. Empress of India, Vifcountess Folkestone, Lady Montague, Oban, Maid of Kent very pretty fancy variety; Kynerith, R. Maher, and Countess of Pembrole. Of Pompon varieties: there were charming bunches of Emily Hopper, yellow; Arthur West. Tommy Keith, Virginale, Stanley Ford, Sunshine, Mary Kirk, Hector, Winifred, and Florence Woodland, \&c. (Silver-gilt Banksian Medal).
A very excellent collection of 144 blooms of show and fancy Dahlias came from Mr. S. Mortimer, Swiss, Nursery, Farnham. Some leading flowers, characterieed by high quality. were aeen in Mr. Gladstone, Mrs. Morgan, Buttercup. Colo-mist-one of the most distinct and constant. Duchess of Albany, Sunset (fancy), George Barnes (fancy), Jno. Walker, Novelty, Mrs. J. Downie (self, very fine), and Henry Eckford, as a fine Mrs. J. Downie (self, very fine), and Henry Eickord, as a fine
crimson self. Mr. Mortimer aloo had a dozen bunches of Cactus and decorative varietiea, chief among them being Delicata, Lady Penzance, Bertha, Mawley, Mayor Hasking, \&c. Delicata, Lady Penzance, Bertha Mawley, Mayor Hasking, \&c.
(Silver Flora Medal). Then there was a good collection of show Cactus, Pompon, and single Dahlias, from Measrs. J. Cencal \& Sons, Crawley, about four dozen blooms of the show types, and charming bunches of the following singles, Victoria, Phyllis, May Sharpe, Miss C. Morland, small, bright orange ecarlet, very good; Evelyn, Dearest, very chaste; Lowfeld Beauty, Miss Roberts, a charming soft yellow; Miss Ashley, amber shaded with delicate rose, and having a crimson ring round the eye; and Miss Glasscock, a very good selection of single varieties for exhibition purposes. There were twenty
four bunches of Pompons also, the choicest were Rosebud four bunches of Pompons also, the choicest were Rosebud,
pale ground, broadly tipped with rosy-nurple (Award of pale ground, broadly tipped with rosy-nurple (Award of Sunshine, Lilian, Lorna Doone, Emily Hopper, Martial Mabel, Sunshine, Lilian, Lorna Doone, Emily Hopper, Martial Mabel,
Grace, Bevenge, Tommy Keith, and Darknesa. Of Cactus varieties, Mrs. Wilson Noble, salmon red, an excellent Cactus type, very bright and fine (Award of Merit); Mrs. Gordon Sloane, dark salmon-red, good Cactus; Earl of Pembrche, Lady Perzance, Mayor Haskins, Harmony, Delicata, Ernest Glass, and Gloriosa (Silver Flors Medal).
Mr. C. TURNER, Royal Nursery, Slough, had a handeome bunch of his large, bright, paleyellow decorative Mrs. Turner Endymion, bright bcarlet, a good Cactus; and firteen blooms of Beatrice, bright rosy-pink with s slight flushing of mave, very diatinot, constant and attractive; and some bunchel of charming fompona, mainly now, viz, Ganymede, already with purple and tipped with white, very distiact (Award of Merit): Madeline, yellow ground, tipped with dark cerise (ATrard of Merit); Zoe ground, tipped with dark cerise pretty (Award of Morti); Peari, white; Ruy Blaw Jason, marool ; and Veitchii, crimoon, very bright and finely formed.

Mr. J. T. WTET, Cornwalle, Brentwood, had some fine new Cactus varieties, such as Mis Annie Jonen, brilliant scarlet, one of the brightest of the true Cactue type (Award of Merit) ; Miss Nightingale, bright deep orange-marlet, very effecture, true Cactus (Award of Merit); Misnie, dehente jinit lower petals, the centre white, a decorative varnety; Bamett Tabrum, bright red with slight dark shading, fino Cacius thaye: Emily French, pale salmon-red, a very good type Shape: Emily French, pale salmon-red, a very good type
Mabel, delicate malmon basal petals, fushed with rowe, yellow centre, true Cactus, a model in point of shape; and Miss Ethel, bright reddish-cerise, very attractive, but not a gool Ethel, bright reddich-cerise, very attractive, but not a good
Cactus type.
Mr. W. Batomblor. Hevefield Park, Uxbridge, had decoMr. W. Batorfilor, Berefield Pary, Uxbridge, had deco-
mative Willie Batchelor, bright pale ecarlet, with white flame and tip, small and very pretty (Award of Merit); and single, Mris. Core Langton. rather Lapge, but very dietinet, corleeurimson, with a marcon ring round the efe (A ward of Merti). Mr. C. Turwik also had new show Dahlia Marjoris, amber ground, suffued with salmon, the reverse of the petale alighty purple, very primining; Barbara, deep crimson eelf; shotev ham Hero, tipped with bright purple; Rowamond, pale eround wath bright rony-purplo tip; and Dante, a umall marooncrimion elf, good chape.
Mr. Q. St. Piprre H\&Rris, Orpingtod, had Yellow Qlobe. a very promising yellow eell, of fine petal and great depth; flaked, aplashed and striped with crimson fancy, palo ground

## Orchid Oommittee.

Present: Harry J. Veitch, Eeq., in the Chair; and Meara. Jas. O'Brien (Secretary), Jan. Douglat, H. J. Chapman, and H. M. Pollett.

Chiswick seems to have but little attraction for Orchid growers. On the present occasion there were but fow entriea. The small group of hybrid Orchid ataged by Mesers. Jus. Vercer \& Sons, Royal Exotic Nurnery, Chelrea, wan the oaly important exhibit, but it contained some remarkably fine thinge. Of these, the magnificent Leelio-Cattleya $\times$ Clonia बuperba (L.-O. $\times$ elegans Turneri $\delta, C$. Warscewiczii $q$ ), may be ranked among the best results of the hybridist's and glowing but the lip was more openly displayed at the bise. The petals were very broad, and, lize the whole flower, of good firm substance; the sepals and petals zoft rosy-lilac, with an indescribably heautuful closels-ket veming of crimson-purple; the liroad labellum is of a glowing mapenta-purple bue, the utside of the side-kes lilac, with purple reining-a most beautiful llower, viewed from any asject, and well worthy of the Firnt-class Certificate awarded. Ancther fine norelty was
Lrelio-Cattleya $\times$ Eunomia (C. Gasselliana ó, L. pumila Dajana \&), a plant of neat dwarf habit and large flowers o the C. Labiata type; sepals and petals of a delicate light rose colonr; the base of the Hp orange, the front iche Hight velvety purple with elight lilac margin (Award of Merit). In the samo group wereleelio-Cattleya $\times$ Paryeatia (L. pumila ${ }^{\circ}$, C. Bowring fana $\%$ ), a pretty plant, with the habit of Lo pumila, but much stouter, and flowers equal in size, and resembling in form thote of L. pumila prostans, flowers rosy-lilac, with light purp'e front to the lip (Award of Merit); Cypripedium $\times$ Carnusianum, Veitch s variety (Haynaldianum os Spicer adum \&), a very singular and beautiful variety, with as distinguishing features, so far as they bave been tested, a much dwarter inflorescence, and darker and more richly-coloured flowers than the type, and having the lower sepals dipjoined and divergent right and left, a feature which has so far proved conatant, and which gives the flower a very striling appearauce. The upper apal is white, suffured with purple with emerald-gre en lines; the reots; lower sepals yellowish, with emerald-gre on lines; the reat of the flower greenioh jellow, with purple-brown tinge(A wird of Merit). Oypripedium $\times$ Metis (philippinease fo, villoam Boxalli i). Ewith ohining yellow flowers fluahed with chocolate, the large yellow hairy staminode being very singular; and Lelio-Cattleya $\times$ Nysa purpurea, a worthy hybrid of the L.-C. $x$ exoniensis class, and which was so finely shown in several varieties by Messrs. Veitch at the corresponding show at Chiswick lat year. Cypripedium Charlesworthii, with double labellum, wear. hown. Messrg. Jas. Veitch \& Son were the first futroducers of C. Charlesworthii, but their plants being small, they were not the first to flower it.
F. W. Moore, E\&q., Rosal Botanic Gardens, Glasnevin, Dublin, sent the pretty Maxillaria striata, with flowers of good Eize. The sepals yellow, striped with purple, the lower ones reflezed; petals similarly colcured, but narrower and curved back at the tips; lip cream-white with parple veining. and white apex (Botanical Certificate).
Hx. Sraw. Exq., 8 tamford House, Ashton-under Lyne (ero. Mr. J. Oliffe), sent Oypripedium $\times$ Whitalyavem (Boainill dark form of O. Boralli, but the leave am tomelated, sind nadicate tbet a oros has been eftected.
A. H. SMEE Req. The Grarge, Walliggton (gros Mr. Cummina), showed a three-flowered inforenconce of a pretty ight form of Cattley $\times$ Hariyane; and A. H. Mictor, Feq, Castleton House, White Lediea Road, Olifton (grv, Mr. 4 . Marrell), showed Odontoglosoupa Insleayii splendens and Oncidium Jontaianum.

## Fruit Committee.

Present : Philip Crowley, Enq, in the chair; and Mespre. W. Wilks, Geo. Banyard, G. W. Cammina H. Baldernon, J. Wright, J. W. Bate:, P. C. M Veitch, W. Farr, G. H. Sage, Robt. Fife, Jar. H. Veitch, Wm. Pope, Jas. Caeal, T. Francis Riveri, Geo. Wythes, Geo, Reynolde, and Alex. Dean.
the Competitive Vegetables.
These were all found in a large tent, ample room being thas provided. Generally, the quality was excellent, that of the best collections first-rate. More competition might have been looked for, but the prizes were perhaps none too attractive. Still, with the present year's experience, if the show be fol lowed up yearly, there can be no doubt, with a revised schedule, it will grow into ercoeding popularity, and become the great vegetable exhibition of the kingdom.
Collections. - Those in the class for twelve hinds naturally included the best samples, and brought the leading exhibitors. The lst prize was talken by Mr. T. Wilkins, gr. to Lady Theodora Guest, Inwood Gardens, Henstridge, with goner illy very fine samples. They comprised Autumn Giant Cauliflower, superb Leeks, gigantic white Celery, rather large Intermediate Carrots, good Perfection Tomatos, Autocrat Peas,
Ne Plus Ultra Ruaner Beans, fiae Coldfinder Potatos, large Ne Plus Ultra Ruaner Beans, fine Goldfinder Potatos, large
but rather spotted Ailsa Craig Onions, beautiful Snowall but rather spotted Ailsa Craig Onions, beautiful Snowball
Turnips, and Globe Artichokes. Mr. Bowerman, gr. to C. Hoare, Esq., Hackwood Park, Basingstoke, was a very close 2nd, having aleo good. Cauliflowers, grand Ailsa, Craig Onions, eplendid Perfection Tomatos, nood Celery, Satisfaction Potatos, rather too large; good Beet, Prizewinner Runner Beans, good Carrote, Peas, ato. Mr. Mairs.igr. to Mr. J. Sheller, Crediton, was 3 rd . The whole of the prizes in this class were given by Mesars. Sutror \& Sorss, Reading, and were the only epecial ones offered.
ones offered. the larger one. Here Mr. C. J. Waite, gr. to the Hon. Col. Talbot, Glenhurst, Esher, |was a good 1st, having excellent Cauliflowers, good Carrota, Perfection Tomatos, Prize-winner Ranner Beans, Snowball Turnips, Exhibition Onions, Satisfaction Potatos, \&c.; Mr. Empson, gr. to Mrs. Wivgrield, Ampthill, Beds, was 2nd ; an
L. Powelc, Weybridge, 3rd.

In the class for six kinds, a fresh lot of exhibitors competed, the best bsing Mr. Kneller, gr. to G. Portal, Esq.,
Malshanger, Basingztuke; Mr. Lioyd, Merton Lodge, Chis Malshanger, Basingstwke ; Mr. LLord, Mu kining 2nd and Mr. G. Nortr, Bu ,king ham, was 3rd. Taling the clases now in schedule order, there were eight lots of three Canliflowers, Mr. Empson coming 1st with perfect heads; Mr. W. Pope, gr. to the Earl of Carrarvon,
Highelere Castle, Newbury, 2nd. with very solid ones ; and Highclere Castle, Ne
Mr. Mairs was 3rd.
Only two competed for Kale herds, Mr. Wythes, gr. to Earl Percy, Syon House, Brentiond ; and Mr. Peatery, Isleworth, taking the prizes.
There was good competition with dishes of Brussels Sprouts, YOPE 2nd with Ezhibition, larger.
Mopz 2nd with Ezhibition, larger. Ylanders. There were thirteen pairs of Marrows; with one exception all good. Mr. Marrs was 1st, with very pretty smallish long white ; Mr. R. Lye, gro to M•s. KiNgsmill, Sydmonton Court, Newbury, being 2nd, with others,
very handsome, and a trifle larger. Cucumbers were fairly vory handsome, and a trifle larger. Cucumbers were fairly
good. Mr. Lre having the best pair with Matchles3; Mr. good. Mr. Lre having the best pair with Matchless; Mr.
WArte coming 2nd with Progress, and Mr. Empson 3rd with Model. Scorzonera in bundles was not an attractive class. Mr. Pentwey had the best roots, and Mr. Waite had the beet sorts of Salsafy.
of Runner Beans nearly all were of the scarlet type, Mr. Lye being 1st with beautiful Prizewinner: Mr. Bowerman coming 2nd with the same variety. With dwarf French Beans Mr. Bowervar was 1st, having handsome Canadian Wonder Mr. H. W. Ward, gr. to the Earl of Radnor, Longtord Castle, Salisbury, being 2nd with the same. Broad Beans were too much out of season, but there was a capital dish of Mammoth Long Pod from Mr. Lye; and Mr. Bowerman was 2nd with the same ; Mr. WAITE coming 3rd.
Peas were fairly good for the time of year. Mr. W. Palmer, Andover, being list with Duke of Albany; Mr. Ward coming next with good Anticipation ; and Mr. Wythes was 3rd with Autocrat. Meesrs. Wilxins and Cooksor had the best of the Artichokee in thatorder. Mr. Wyteres was the only exhibitor of Cardoons. Something like the old show form was seen in the superb samples of Potatos shown by Mr. Pope, who had three beautiful dishes of Kidneys in Magnet, Matchless, and White Kidnoy; Mr. Bowerman was 3nd with Snowdrop,
Cole's Yavourita, and Prizataker; Mr. Wurte coming 3rd. Cole's Yavourite, and Prizetaker; Mr. White coming 3rd,
The beat wingle dish of Kidneys came from Mr. LYE, who The best mingle dish of Kidneys came from Mr. LYE, who
had fine Chancellor; Mr. Normi coming 2nd with Breese.
The beot three dishes of Rounds were from Mr. Pope, also beautiful samples of Satisfaction, Perfection. and Nomsuch, medium and perfect; Mr. Marrs came next with The Dean,
Pink's Perfection, and Windsor Castle; Mr. Norti was 3rd Pink's Perfection, and Windsor Castle ; Mr. Norter was 3rd.
With one digh of Rounds Mr. Nortr was a good lat with handsome Windsor Castle; Mr. Lye coming 2ad with Satio faction. This latter exhbibitor had the beat sir Leeks clear white and good; Mr. Marrs coming 2nd; and Mr. Pope 3rd.
Mr. WAITE was well lat with three dishes of Onions, having fine Ailm Craig, Kahibition, and Cocoa Nut; Mr, Matrs coming 2nd, and Mr. WARD 3rd. The best taree buaches of Tumipa were from Mr. Nortie, Mr. Osman Sutron coming 2nd; Whilat with a aingle bunch Mr. WAFTE was lat, and Mr. LTE and, both with very handrome Snowbull. Mr. W YTHES was the ouly exhibitor of Celeriac, but the sample was excellent. With three varieties of Carrots, Mr. NORTH was 1st, having Very long.fhin, taporing long Surrey, good Intarmediate, and
 in 2ad, and Mand Bowernman 3rd, with. Wrugins coming Mr. LIE had the beat bix Parmips, Mr. Wa ame coming 2nd, Mr. WYTETs cosming 2nd. Mr. Webeter, Hore to E. J.

Prestor, Ksq., Beckenham, had the beat and very handsome Beet in Veitch's Blood Red, a perfect stock; Mr. Warte coming 2nd. This exhibitor was lit with two varieties of Endive, and Mr. Pentwey was and, both having Batavian and Green Curled. Mr. Lye camo 1st with two varieties of Lettuces, both Cos; Mr. Waite coming 2nd. Celery was good, Mr. Wilkins having the best with Solid White and Sulham Prize, Mr. White being 2nd.
A collection of salads enabled Mr. WyTHes to win 1at place easily, as his capital collection was set up artistically in a large plot, having plants of ripe fruit of Tomatos bent over the top. Lettuces, Endives, Oucumbers, Celery, Beet, \&c., made up the collection. Mr. Waite was 2nd, and Mr. Sallition West Norwood, 3rd. Mr. Salmon was
of eighteen bunches of Herbs in variety; Mr. Watre being of eighteen bunches of Herbs in variety; Mr. The consolation class for any other vegetable, still brought Mr. WATTE to the front with a superb dish of Perfec tion Tomaton; Mr. Basile came 2nd with huge firm Red Cabbages; and Mr. Albert, of Chiswick, was 3rd with
Tomatos, Corncobs, Kohl Rabi, huge Pumpkins, \&ce, made up other variety hers.

## Miscellaneous.

There were numerous honorary exhibits. Foremost was a very large, varied, and interesting collection of vegetables, sent by Mr. O. THoMas, from the Queen's Gardens, Frogmore. It would be idle to say that these samples compared favourably with what were in the competitions; but the collection was a remarkably varied one, and comprised every description of vegetables in season, as also Salads. The whole was artistically grouped and represented in the collecting and arranging a great amount of labjur. A Silver-gilt Knightian Medal was a warded.
A not less meritorious collection came from Burford Lodge, Dorking, set up by Mr. Bain, gr. to Sír Trevor Lawrence, president of the society. This comprised Herbs and Salads Gourds and Tomatos, Beans and Capsicums. Potatos and Carrots, huge Aubergines, tiny Kohl Rabi, growing Mustard and Cress, \&c. A Silver-gilt Knightian Medal was awarded.
This exhibit, to which we mugt refer again, was the most original and instructive in the whole show.
Mr. Empsow had a large and excellent collection of Carrots (Vote of Thanks). Mr. WoodHead, Isleworth, lhad nice red and white Cabbages, Turnips, and Brussels Sprouts. Mr. W. Palmer showed Tomato Palmer's Triumph, like Conference Mr. H. W. Ward had Carter'd Heartwell Cabbage, Model Curled Lettace, and Giant Cos do. Messrs. Fkilows a BYDER, Orpington, showed twenty-one dishes of their handsome Tomato Duke of York, the fraits of medium size and perfect form (Silver Banksian Medal); and from the Soc'ety's gardens came examples of the varieties of Cabbages and Potatos, mentioned in our report of the meeting of the Frait Committee at Chiswick on Tharsday last, and all of which received three marks for general excellence.

## Merit were recommended to these.

4 collection of seren varieties of Peas in so many dishes was shown by Mesgrs. DE: Rotischild, Gunnersbury House, Acton (gr., Mr. Jas. Hułson), Sutton's Prolific, Sutton's A1,
William I., Veitch's Chel onian, Sutton's Reading Giant, William I., Veitch's Chel onian, Sutton's Reading Giant,
Sutton's Exonian, and Veitch's Autocrat. The last-named Was sown on May 13, Reading Giant and Chelsonian on June 5, and the others on July 11. All the latter were ready to pick, but not very full.
Two Cucumbers, called Frogmora Prolific, were shown by Her Majesty the Quren (gro, Mr. O. Thomas). These are medium-sized, darla green fruits, obtained from Lockie's Per fection $\times$ Rochford.
Mr. T. Wilkins, gro to Lady Teeodora Guest, Inwood House, Henstridge, sent a fow fruits of Mango for exhibition.
A dish of Swedish Apples [Akera] was shown by Messra. Geo BUTrard \& Co., Maidstone. The fruits are very solid, the colour similar to a Peach, but faintly streaked. Meerrs. Bunyard \& Co. also had a dish of fing fruits of Lady Sudeley A soedling Plum, named Gordon Castle, was exh
Mr. CHAS. Webster, Gordon Castle Gardens, Banff.
Fruits of the Alpine Strawbarry Quatre-saisons, Rouge Ameliorée that obtained an Award of Merit on August 13 last, were exhibited by Mr. Hudson, Guanerabury House Gardens, Acton, W.
A capital Melon was exhibited by Mr. H. W. Ward, gro to the Rarl of Radnor, Longford Castle, Salisbury. The variety is known as the Earl's Favourite, is a good size, straw-coloured, prominently netted, green-fleeh of very good flavour (First class Cortificate). Two Melons were also good havour (First Miller, gr. to Lord Hocer, Rualey Ladeg by Mr. J. W. these was named Archie Henderen Lodge. Ksher. One of coarsely netted, and green-fleshed. The other was La Favourite, also green-flesh.
From the Royal Gardens, Windsor, Mr. O. Trowas ex hibited stem of Tomat), Frogmore Golden, with fruits, a large good-looking variety; and Mr. A.J. WARD, Richmond, showed a lot of first-class Tomatos, Chemin Rouge, which had been grown upon a Richmond allotment (Bronze Banksian Medal).
A pleasant-looking Apple namsed Marshall's Seedling, was exhibited by Mesers. Tros. RIV ers of Son, \&a wbridgeworth; and A. H. SMEE, Esq., The Grange, Wallingford, showed two fruits of an exceptionally solid culinary Apple named Remborough, large size, green, but alightly coloured with deep - yo (AWard of Merit).

Cord, Whibited ganim of Earl Percex, Byou House, Brontford, whibited havim of a dwart vory prolific Irench bean, named Northumberland Prolific (A ward of Merit). Two nicelooking red-fleshed Melons were shown by Mr. J. Cortest gandener to the Marquis of Noemambr. \& dozen plantel of the Cabbage Lettuce, named Intton': Favourito, exhibited by Mr. HuDsom from Gunnersbuzy House Garden, were culturally

Commended by the committee. Some fruits of a Tom named Burt's Surprise, from Mr. F. M. Burp, Red How Worthing, were rather smaillong fruits of hithe solidity. dish of very well-grown fruite of Pear souvenir du Conget,
exhibited from the Royal Horticultural Gardens culturally Commended.
Messra. S. Spooner \& Sons, Hounslow, Middlesax, conthbuted a very commendable oollection of fruit, none of which was other than good in quality. We noticed a aice bo of Duchess Favourite, a good, well-known September Apple something like Quarrenden in appearance, but highercoloumed even, and rather larger; Lord Suffield, Stone's Apple, Won cester Pearmain, Yellow Ingestre, Councillor, and an others; also a dish of Hessle Pears, and a few sorts of Fial (Silver Knightian Medal).
Mesers. J. Cheal \& Sons, Lowfield Nurvery, Cravien showed excellent specimens of a very ornamental scarlet Cond as well as fruits of Transcendent, Golden Siberian, and Darts mouth Crabs. A rare lot of Tomato stems in many varittly laden with heavy crops from the open air were the meame obtaining for the Earl of Carvarvon the committee's thatid As is usual on such occasions as this, Messrs. Surtorit Sons, Reading, staged a representative collection of vegetable illustrative of high culture and careful selection, and a Silve gilt Knightian Medal was awarded the erhibit. Ailsa Caig
Onions, 70 of which were said to weigh 2 cwt., and seemen rarieties of Carrots also were very fine ; but why it is necomin to show that the Carrots have penetrated to a depth of 3 fom 10 inches is not evident. However, that is the length of mm of the roots shown, though of course for practical purposes only about 12 inches was of any use. The Exhibition varietry which is a cross between Long Surrey and Iatermedith Carrots, was very noteworthy. Windsor Cistle Potato mil Little Gem Cabbage ware also deserving all prai e. Tomatm and other vegetables ware woll representef.
A collection of vegatables renirkable for high culluml merit was the exhibit from Messes. R. Verrci \& Sor, Kxetm Their Monarch Leeks, Model Carrots, Flyiog Dutchmin Tomato, and the different varieties of Onions, Carrots, Culliflowers, Radishes, and other things, reflected very great ceredit on the Exeter firm, and a Silver Kaightian Medal mu awarded.
Messrs. H. Cannell \& Sons, Swanley, Kent, were mot behind, but exhibited a large collection of vegetables five their farm near Swanley. A Silver Knightian Meda mw awarded this collection, in which thare were excollent samples of Onions, Leeks, Beet, Carrots, Brussels Sprouts, Artichoien Marrows, \&c.
Mesers. JAS. Veitci \& Sons, Royal Exotic Nursery, Cheleen in their remarkable collection, had splendid specimens of thir Green Curled Endive, Broad-leaved Batavian Endire, mid White Curled Endive. Their Savoys, Cabbage, Seallh, Beet and Carrots, too, were of capital quality; Kohr Roin both green and purple kinds; Salsafy, Turnips, Redidhem, Runner Beans, and Tomatos, were all of good character and choice selection. Messrs. Veitch were decorvelly awarted Silver-kilt Knightian Medal.
Mr. Geo. Wythes, gr. to Earl Percr. Syon Honse, receind a similar Medal for a very large collection of vegetabes to 0 shown from a private garden, and representative of almom all kinds now in season.
Messrs. Dobbie \& Co., Rothesay, Scotland, had a commenth abe collection of vegetables, and their Paraley, Du boird Selectod, deserves meation; it is one of the very fiaent carial selections we have seen. Parsnips, Celery, and other
were included in this exhibit (Bronze Bankeian Meda).
were included in this exhibit (Bronze Banksian Modaly
Mesers. BARR \& Sow, King Street, Covent Garden, exhititad number of varieties of Tomatoo cultivated in the open most of them of the Perfection type; also a nice iot 4. Kale, both green and purple (Silver Bankgian Medal).
Messrs. Sutton te Sons, Reading, exhibitod a sanith unner Bean called A1, apparently a wonderful bert).

## Lecture on Garden Manureß.

There was considerable interest manifested in the lecture given by Mr. W. G. Wation, the aubject of which was "Garden Manures." Ia the abuans the author, the paper was read by the Ansirme Secretary (Mr. J. Weathers), and We ship wae undertaken by A. W. Satton, Eiq. In commencing the subject, Mr. Watsoa vory propmily dealt first with the most common formo of manure sid or fark most easily procurable, viz., that furnished by :tabied manurt yards, It was remarked that stable or farm-ys recedingly variable in its quality. It would rary particular, according to the age and condition of the upon what kind of straw whes used, and, further, quantity of atraw that was mired with the real mas thil Manure from young growing animales was lesy older ones, and animals that were work oaly.
also give manure of medium strength oum there would be more nutrition abstracted from the the animals than in the case of fully-grown animsile be tislly worked. Medicine given to animalio would
affeot the quality of the manure. All the stra above the quantity requisite to absorb the uriae woma tained almost all the elements required by crops, org inorganic. As a general manure, it was a most pan thit however, nothing be supplied to the land ing lime and sith two elemente which in large degree become aboorbod h tood by the which in large degree bof bone sad ficth

Valuable hints were given as to the treatment of this kind of manure, and the heap-method explained. It was insisted that in order to keep off the rain, manare should be stacked in covered places. Urine being the very best part of the manure should not be allowed to trickle away, but should run into an underground tank, from which occasionally it could be pumped and thrown over the maes of decaying manure, which would prevent excessive fermentation, and the consequent lose of ammonia. The temperature and the centre of the heap should never rise beyond $150^{\circ}$, nor be allowed at any time to steam In eilher cases there will be a loss of ammonia. A strong odou would likewiee indicate loes from this cause. The degree of usefulness possessed by the excrement from different animals was explained thus: the manure from cows contained a small amount of nitrogen, and large percentage of water. Horsee' excrement was richer in nitrogen, and contained less water: it had also the advantage of being easily dietributed, and was toon available as plant food. Sheep-dung had a still higher percentage of Ditrogeo, and a less degree of water, being also essily moluble. Pig-manure varied considerably, according to the food they consumed. \&c. The reasons for applying freeh dung to stiff soils, and thoroughly decomposed manure to light and dry soils, was next explained, and the necessity of giving soil of the latter nature manure which was at once soluble and available to the plants was eraphasised. Unless this was done, the manure was wested through the soil, before the crope had benefited from its application.
Bcnes were now employed in very much finer condition than
formerly. It had been found that the finer the bones were ground, the sooner were they available to plant-life and the more valuable were they as manure. Bone-meal is now rery much ased.

Superphosphate of Lime.-Mr. Watson then explained the character of this valuable manure, by saying that were bones treated with sulphuric acid, certain gases would become volatile, and the remaining compound would be that known as superphosphate of lime. This euperphosphate was now manufactured by other means, and a considerable amount is nced. Bone-meal was better for dry and hot zoils than the superphosphat-.
Nitrate of Soda: Phosphatic Slog. -The phosphatic slag. a mineral masure, was good for pesty soils, and considerable benefit might be expected to follow its application on land in the Fen district. Nitrate of coda was obtained in large quantities from South America. Its action was quicker than that of any other nitrogenous mapure. The quality of thi manure is very variable. It is more easily washed from the soil than any other, and it is therefore not a complete manure, but should be used only as an immediate stimulant.
It used -This was dercribed as the dried excrement of birds. It uied to contain about 16 to 18 per cent. of ammonia, but through the excasive adulteration now practised, it falls froquently to 11 por cont., and sometimes 0 to 10 per cant. Tue Trens Guavo in the excrament of the native bate, and realises hiph prices. Guano is adaltorated with mand, eley, powdered bicl, gypewn, te,
Lime was next alluded to, and its well-hnown action upon soils explained. The application of lime hastens nitrification, and is very useful in old gardens where a quantity of vegetable humus is present.
Potash is absolutely indispensable to plants, and. without it no chlorophyll can be formed. It is applied frequently as parasitic fungi wheo used in large quantities. teodency to parasitic fungi when used in large quantities.
it, the weed was frequently mired whore, and in prepariog gas lime, About 10 to 15 tons per acre was the quantity recommended
agricultural and wanares under cortain circnmed as garden and agricultural manure under cortain circumstances. The fish posed, it is used at about covered with earth. When decom. posed, it is used at about the rate of $1+$ tons to the acre. Salt acts organically upon the soil, in addition to being a manure Ite application is useful in ridding the soil of cartain insect pests. Woollen rags are much used in Kent as manure for Hops.
Biood and Soot were also alluded to, and their uses explained. If economy be practised in regard to manures, it was necessary to first find by analysis what was deficient in the
soil, and then supply that only. Some soils were defirient only in one element, and did not require a general or perfect manure. The storsge of manure is an important item economi cally. The gardener who allows the urine to eacape from his stabo manure, and afterwards bura chemical preparations, may be said to buy what he throws away.
of maling experiments in regard to land manore and cropsect

NATIONAL CHRYSANTHEMIM
Shptember 3, 4, AND 5.-On Tuenday lant was opened, under the anupices of the National Society, an early exbibition of Chryaanthemams in the Royal Aquarium. Fortunately, perhsps, from the visitorn' point of view, the early shows are held in conjonction with exhibitions of Dahlias and Gladioli under the ame management. At the September ahow there is uaslly but a small collection of Caryanthemoma to be aeen, and the occasion ander notice was certainly noexception to the rule. Bat little succes appeare to reward the attempt to prolong the season of the large-flowering Chryasnthemum,
by obtaining varietie that will bloom well before by obtaining varietien that will bloom well before
not see sny canse for regret in this circamatance, being of opinion that the Chrysanthemum is eseentially an sutumn Gower, that it ia beat appreciated at that period, and that if it be desirable that the flowering period be prolonged, it ahould be by the mean of Jate varieties rather than early ones.

## Chrysanthemums

The class for twenty-four bunches of Chrysanthemume, in not fewer than eighteen varieties, was won by Mr. Eric H Such, The Nurseries, Maidenhead. The "bunches" consisted of a number of sprays in each variety, dibbled into pots fillen with cocoa-nut fibre, in a similar manner to that in which cuttings are put in-an arrangement not quite as pleasing as the ordinary tied bunches.
The twelve blooms of Madame C. Desgranges, from Mr. J Wricht, 87. Denmark Road, Camberwell, were of good quality, and it was remarked that the 2nd prize collection came from almont the amme locality-Clapham.
In the stand of twelve blocma of any large-llowering Molyneux, R. Dean, and Louise were prominent. The $\mathbf{R}$ named new variety is a very useful one for early work. The exhibitor of the best lot was
Mise Debeniam, St. F'eter'b, St. Albans, won list place for twelve Pompone, but the claes was not remarkable. The best ix bunches of any yellow varieties, excepting M. C. Desgranges included Mrs, Burrell, G. Wermif, and Mrs. Hartshorn. The collection was shown by Mr. W. C. Pagram, gre to J. Courtenay, Esq., The Whim, Weybridge.
For early work the following six varieties should be useful, as they were shown in the successful stand for that number of distinct varietios, excluding M. C. Desgranges-Miss Anna Hartshorn, B. Dean, Louise, E. Molyneur, W. H. Lipcoln, and Madame Edward Rey. The exhibitor was Mr. Chas. Cox. gr. to J. Trotter. Eeq, Brichendon Grange, Hertlord.
There were few groups of Chryometbemum plants ataged. We noticed one from Mr. Nommar Davis, Camberwell, composed chiefly of plants of the white-flowered Lady Fitawigram, and some Ferne.
Mr. H. J. Jowes, Byecroft Wuraery, Lewioham, had a fair. sized aroup of tuberoue-rooted Begonias, Ferns, Lilium lanciLolium album, and a few Chryganthemums, the whole being very attractive.

## DABLIAS.

These were plentiful, and the quality good. Amongat the principal exhibitors were Mr. CH48. Turver, Royal Nurserien, Slough, who was lst for forty-eight blooms; Mr. JNO. W $A$ LKER, Thame, Oxon, lot for thirty-six blooms; Mr. GEO. HUM blooms; J. Chral \& Sors, Lowfild Nurseries, Crawley, 18 for eighteen diatinct bunches, ke.; and J. Bunamit \& Co Cambridge, list for twelve bunches of Pompons and others. Cambridge, lst for twelve bunches of Pompons and athers, - very large one from Mr. Thos. S. W ARe, Hale Farm Nurseries, near Tottenham; others from Measrs. J. CHEAL S Sows Measrs. DOBBIE CO., Bothesay, \&c.

## Glidioli.

The collection of these that won lat place, was ons from Messrs. J. Burrell \& Co., who staged a good displat, but arranged them in too stift a manner.
Miscellaneous Exhibits included nice collections of fruit from 8. Spooner \& Sons, Hounslow, ad J. Cheal \& Sons; hardy flowers, fruit, f c., from Mesers. J. Lilwg \& Sons, Forent Hill Nurseries; Sweet Peas, from the Brockhampton Nurseries (W. E. Tidy, manager), \&c.

Sbptrmase 3 -There were afew Chryanthemume submitted before the Floral Committee on the above date.

Mr. Jofm Roberts. nurseryman, Shepperton, brought a small white-flowered sport from Madame Deagranges, of Pompon size and shape, very free and useful for cutting from, which the committee wished to soe again. It is named Amanda, and Mr. Roberts stated the flowers find a ready sale in the market. From Mr. H. J. Jonis, Byecrott Nursery, Lewisham, came two early-flowering varieties, viz., Madame Carmviarie, blush; and yellow Pompon Amie Conderchet, which the committee commended in each case.
double form of Anemone japonica named the white sem: double form of Anemone japonica named Whirlwind, the blossoms jure and semi-double, from Mr. Pritchard, nursery-
man, Christchurch. I he same award was made to Mesers. J. man, Christchurch. The same award was made to Meerrs. J.
Laivg \& Son, Stanstead Nurseries, Forest Hill, for Linaris Laivg \& Son, Stanstead Nurseries, Forest Hill, for Linaria Red Bictingheimer, a fine fruit much tinted with red, and partaking of the form and size of Warner's King. From Mr. R. OWEN, nurseryman, Maidenbesd, came four varietiem of early-flowering Japanese Chrysanthemums, and Vote of Thanls was awarded. Improved cups and tubee for Chryeanthemum blooms were shows by Dr. WıLKER, Wimbledon, and Mr. Thos. Jemner, Rocheoter.

A committee of Dahlia experts made the following awards : To Cactus Dablia Mre. A, Beok, bright salmon-red, a true Cactus variety, with some novelty of colour. Single Dahlias Hetty Desn and Pompon Flora, deop yellow, were very
attractive. These were from Mr. T. 8. WARE, Hale attractive. These were from Mr. T. S. WARE, Hale
Farm Nursery. Tottenham. A First-class Certificate of Farm Nursery. Tottenham. A Firat-class Certificate of for Cactus Dahlia Valkyrie, crimson centre, ahading to rosymsuve and blush, very diatinct, a fine Cactus type; aloo to Owctu Dablia Fuailier, pals bright monlet, wary dietinet and

seryman, Crawley, for Cactu Dahlin Mra. Wileon Noble. salmon-roee, a very distinct and pleating flower. Also to the following varietie of Pompon Dahlias from Mr. Crarles the following varietien of Pompon Dahlias from Mr. Criarles
Turner, Royal Nureery. Slough, viz., Douglat, very dark Turner, Royal Nureery. Slough, vir., Douglat, very dark
maroon, of fine shape; Fabio, yellow, heavily tipped wilh maroon, of fine shape; Fabio, yellow, heavily tipped with Ganymede, salmon, flushed with delicate mave on the petal dgee.
Somo attractive varietien of the aingle Cuctus Duhlia were hown by Mesers. DobBire \& Co., nurnerymen. Botheasy, but they failed to find favour with the committen.
Three very fine forms of Hybrid Gladiali were submitted for approval by Mesir. J. Bưnill \& Co., nurmerymen, Cembridge, and First-cluss Certificates of Merit were awarded to each, viz., Teree, a pale pink, flaked alightly with dark red-dioh-purple: Bunray, delicate pink, with alight filies af crimen; and Blushing Morn, delionte fienb, with a tinting of pink-a charming variety.

## NATIONAL DABLIA.

September 6, 7.-What with the Royal Aquarium how on the 3 rd, and the above exhibition of the National Society at the Crystal Palace three days later, the Dablia growera bad a busy week. The show and fancy varieties were finer at Wentminater, for the hest and closeness of the atmophere appeared to have told upon them toward the end of the week, and the flowers were amaller, and less Gniabed. The Cactus and decorative varietien were nuperb, however, and the aingle and Pompon varietien very fine.
Show Dahlias.-At the Crystal Palace, Mr. C. TUREER, Royal Nursery, Sloukh, was an easy winner for sixty bloome, ling, very fine yellow belf: George Rawlings, John Standish, an old flower jet still foll George Rawlinge, John _Dtandish. Ly old flower, jet still a ine exhibition rariety; Gloire de Turner, Willie Garratt, Mr, Gladatone the best bloom of his Turner, Willie Garratt, Mrn. Gladatone, the best bloom of his York, in charming tipped fower. Grand 8ultan, Alice Emily, York, a charming tipped fower; Grasd Bultan, Alice Emily, Burgundy, Mabel Tranter, a very pleasing coft primrose-yellow elf: Mrs. Saunders, one of the best fancies. yellow, tipped with white; Diadem. John Walker, the fineot white self ; Shottesham Hero, heavily tipped with roey-purple, very good. Mr. Jnify Walker, nurearyman, Thame, Oxon, was a good
2nd and Mesars. Keynes, Williama \& Co., Salisbuty, 3rd. With forl fow of the finest flowers in the stand being $W$ arrior, Alice Raily, Hope, George Rawlinga, R. T. Rawlingw, Jamee Vick, Shottesham Bero, John Bennett, Mathew Oampbell, Plessaunce, very bright; and Mrs. Gladstone. Mr. J. Wayken was again 2nd: and Messrs. KeyNEs \& Co., 3rd.
With thirty-aix blooms, Mr. George HuMphries, nurseryman, Cheltenham, came to the fore, having well-developed Cannell, William Powell. Harry Turner, Duches Keith, Miss Cannell, William Powell. Harry Turner, Duchese of Albany, John Walker, R. T. Rawlings, Mrs. Mortimer, and Queen of the Belgians; Mr. J. T. Wrer, Cornwalls, Brentwood, wat 2nd: and Messrs. J. Saltmabse Boas, nureerymen, Chelmaford, 3rd.
With twenty-four varieties, Mearrs. SaltmansH a Sons Were lot, with a very good otand, their loading flowers being Colonist, J. Hickling, A. Rawlings, R. T. Kawlioge, John Walker, Prince of Denmark, William Rawlings, and Alice Emily: Mr.J.T. West, who was 2nd, had the following very cood, W. Powell, John Walker, Harry Tumer, Queen of the Belgians, Shirlej Hibberd, Mise Cannell, Jobn Hickling, and Mrs. Gladstone: Mr. G. Humpheies was 3rd.
 Nursery, was lst, the stand containing good examples of Mrw. Gladstone, W. Rawlings, Arthur Ocock, George Rawlings, R. T. Rawlinga, and John Walker: Mr. ARTMUR, Florist, Romford, was 3nd.
In the amateurs' division for twenty-four blooms, Mr. Thomas Hobb3, Lower Easton, Bristol, who has been showing remarkably well this sesson, was 1st, with capital blooms of Henry Glasscoct, Duchess of Albany, John Henshaw, Alice Emily, Hartie King, Prince of Denmark, Harry Turner, T. W. Girdlestone, Geo. Rawlings, Mrs. Gladstone, and Willie Keith; Mr. L. FEwres, Castle Bromwich, Birmingham, whe 2nd ; and Mr. T. Anstiss, Brill, 3rd.
With twelve blooms, exclusive of fancies, Mr. A. Starling, gr. to H. H. Rapkaze, Req., Hevering, was let, his leading
fowers being John Walker, Wm. Rewlioge, J. T. Week, James Vick, R. T. Eawlings, Colonis, and T. W

## Clippenhem; Mr.

## was 2nd.

Fancy DaAlias.-Mr. T. Awsirss, Brill, had the best twelve blooms, Dundy, Erince Henry, Mr. Satunders, and Matihew Campbell being very good : Mr. S. COOPER, Chippenham, was 2nd. For six blo
In the open clames for Dahlias in colours, the best six. blooms of any dark variety was Willie Keith, from Mr. C. Turner; Mr. ©. Montimer, Farnham, was 2nd with Jamee Cocker Several other varieties wero bhown. The best light, not yellow, were those of John Walker from Mr. Walker: Mr S. MORTIMER was 2nd with Mra. Gladstone. There were ather exhibitors, but these two varieties only were shows. The bet six blooms of a yellow came from Mr. Whleen, who
had W. Powell; Mr. MokTiMER was 2nd with John Hickling.
B. T. Rawlings and Buttercap were also shown. The best ipped Dahlia was Mrs. Saunders, sir excellent blooms being hown by Mr. M. V. SEATE Sevenoaiks: Mr. MORTIMER cam and with Mre, N. Halls, Mr. G. Humperbies had the best si= loome of a triped Dahlia, showing Frank Pearce in very fine Maren Wr. Wires was with Mathew Camphell The best-edged Dahlia was Miss Cannell, from Mr. J. Walker Mr. J. T. W IST coming and with his namesake.
Cuctus Dahlias. - In order that only true forms of th Cactustype should be shown in this class, a list is published in the schedule of prizes of those eligible for exhibition in thi class. With eighteen varieties in bunches of six blooms, Messrs. T. Cheal \& Soys were 1st, having superb examples of Mrs Wilson Noble (new), very fine ; Harmony, Earl of Pembroke Delicata, Lady Penzance, Matchless, May Pictor, Bertha Mawey, Countess of Goaford, Mrs. Gordon Sloane (new), and Purple Prince. Messrs. Keynes \& Co. were 2nd, having differen rom the foregoing:-Fusilier (new), very fine; Mrs. Barnes, TURNER. With twolve bunches, Messrs. J. Burbell \& Co. hureerymen, Cambridge, were 1st, having Gloriosa, Countes of Gosford, Rarl of Pembroke, Mre. Peart, Delicata, Lady Penzance, Mayor Haskins, Robert Cannell, and Mary Hillier Mr. J. T. West, was 2nd, having fine bunches of Miss A Nightingale (new), Miss Annie Jones (new), Mary Hillier, Gloriosa, Matchless, and Delicata.

Decorative Dahlias.-In the class for twelve bunches, no Cactus variety could be shown, but Mr. C. Turner had to be diequalified through inadvertently staging a Cactus form. Mesars. J. Cheal \& Sons had the best twelve bunches, the most striking rarieties being Arthur Cheal, Chancellor Swayne Mrs. Hawkins, Harry Freeman, Maid of Kent, Amphion, and Lady Primrose. Mr. M. V. Seale was 2nd, having, of good rarieties distinct from the foregoing, Baron Schroder, Mar chioness of Bute, and Sir Roger
Pompon Dahlas. - There were very few shown, Mr. C. Turner taking the 1st prize for a collection of small-sized flowers, beautifully fresh and bright, including Nerissa, Fabio Bacchus, Ganymede, Douglas, Purity, Geo. Brinckman, Ruy Blas, Jessica, Crystabella, Eric, Amber, and Iola, edged with bright purple; 2nd, Mesors. KEYNES \& Co., their best varieties being Madge, Tommy Keith, Irene, Arthar West, Lilian, Janet, and Model.
With twelve bunches, Messrs. J. Burraid \& Co. were lat and Mr. J. T. Weer 2nd.
Single Dxhlins. -These atill hold their own, and they were shown in very fine condition in twenty-four bunches. Messrs. J. Creal \& Sons were placed 1st, the most distinct being Miss Henshaw, Gulielma, M. C. C. Formona, Miss Glasecack Misa Roberts, Victoria, Phyllis, Marion Hood, and Northern Star; 2nd, Mr. Sexter who had in good character, diatinet from the foregoing, Mrs. Parrot, Miss Jeffried, Duchess of Albany, W. C. Harvey, Eclipse, and Evelyn. There was no entry in the class for twelve bunches
Cactus and Decorative Duhlias.-With twelve bunches, Mr J. STREDWICK, St. Leonards, was 1st, having very good bunches of Gloriosa, Delicata, Countess of Gosford, Bertha Mawley, Harmony, Juarezi, and Lady Penzance; Mr. E Brown, gr. to M. W. Morris. Req., Horley, waa 2nd. With six bunches, three blooms of each, Mr. E. Mawley, Berkhamsted, was 1st: and Mr. S. Cooper 2nd. With six arieties of Cactus only, Mr. J. Stredwlck was 18t; and Mr. E. Brown 2 nd.

Mesara. H. Canyeri \& Sons offered prizes for four bunches of Cactus Dahlias sent out by themselves, Mr. W. Mist being th only exhibitor, and took the lst prize.
Pompon Dahlias, Amateurs.- With six varieties in bunches, Mr. J. T. Hudson, Gunnersbury, was 1st with some excellent howers; Mr. J. Stredwick taking the 2nd prize. With six bunches, six bloom in each, Mr. S. Cooper came 1st, and Mr G. WYatt. Twickenham, 2od.

Single Dahlias, Amateurs. - In the class for sim buncher, ten looms of each, Mr. T. W. Grrdlestone, Sunningdale, was 1st, with Kitty, Soubrette, Golden Locks, Dearest, Prince of Waltes, and a seedling; Mr. C. Osarav, Sutton, was 2ad With ix bunches, six blooms in exch, Mr. E. Mawley 1st, and Mr. W. Parrott, Sevenobke, 2nd. With twelve varieties of single fancy Dahlias, Mewry. J. Chear of Sons were the only exhibitors, and they had Phyllis, Mrs. Harris, Ired Leslie, Alice Searle, Mrs. W Ythes, Misa Glascock, Mey Gharpe, Dearest, and James Scobie in excellent form.
following : Show amber centre, six fine blooms of Globe, bright yellow, with (G. Harris, Orpington): Cactus, Beatrice bripht ow lilac, trae Cactas, very distinct and attractive (C. Turnfr, Slough): Cactus, Henry Stredwick: dull crimson, flushed with maroon, becoming brighter with age, true Cactus (J. STRFD maroon, becoming brighter with age, true Cactus (J. STRFDslight darkshading, true Cactus; Mrs. Wilson Noble, salmon rose, very distinct, and extra fine, a true Cactus (J. Crild a Sons): Cactus, Miss Annie Jones, brigbt palescarlet, a true form; and Mise A. Nightingale, salmon-red, deepening in colour very distinct, true Cactue (J. T. West, Brentwood) ; Wrs. A Beck, bright pale orange-red, a fine true type (T. S. WARE) Fosarlet, very fine, and distinct and true; Grenadier, pale saarlet, very fine, and eftective; and Boyal George, lively Wrhenams a Co., Sallabury) Tectu, Fery distinct (KEYNES deep maroon, swall, fane shap). To Pompons, Douglas, bright deep maroon, skall, fine shape; Norissa, soft rosy-pink, very pleaking. small; and Ganymede, solmon, flumhed on the ery Rosetud, pal R Rosetud, pale rround, heavily tipped with erimenpons fine shape, very pretty ( $\mathcal{J}$. Ofzex \& Sow). Erimann-purple pale grovind. flaked and peacilled with ormeoge. Soubrette


Beanty's Eye, soft pink, with a ring of orange-crimson round a golden centre (E. Mawley). The forego
made by a large committee of Dahlia experts. , Laing \& Sons, Forest Hill leading the way with a group of Camellias and one of Gloxinias, the latter from seeds sown in spring, all showing high quality. Mr. M. PRITCEARD nurseryman, Christchurch, had a collection of hardy cut flowers; Messers. DobBIE \& Co., seedsmen, Rothesay and Orpington, had cut Dahlias of various types, including a collection of the single Cactus types; Messrs. H. Cannell \& Sors, Swanley, a collection of bunches of Cactus and decorative Dahlias: Messes. CHeal \& Sons, several stands of the same Mr. T S WARE, Tottenham, a large collection of Dahlias M. N. Warf, Lottenham, a and Messrs. J. Peed \& Sons Lower Norwood, Dahlias and cut hardy flowers

## GLASGOW HORTICULTURAL

It was admitted on all hands that the excellence of the exhibite generally at the recent show wa equal to anything that ham been seen in the West of Scotland previously; the enthasiasm of the citizens has been aroused somewhat by the attention now given to horticalture in the case of parks and botanic gardens. The nurserymen and floriats did much to make the diaplay a good one.
Enclosing the orchestra was a great display of fine-foliage and flowering-plants, staged by Messrs.'Austin \& MCAustlim who also had two tables with choice selections on each.
Messrs. Thyne made their usual exhibits of Crotons, Dracæenas, and Palms, and other suitable plants, including numerous Lalies interspersed in the exhibit, which enhanced its appearance.
table of choice plants came from Mr. Dewar, the Curato of the Botanic Garden, who throws great energy into the work of the exhibitions. His table was rich with Marantas, Bego nias, Alocasias, Alloplectus Lynchii. Zingibers, and other зресіes.
The tables furnished by gardeners in competition were all arranged with taste, but variety was to some extent wanting. Crotons, though of the finest colour, should not be included in group withont any regard to proportion. Mr. HUGH McGulley, garden er, Langside, was 1st.
Orchids were few in number, but the plants were good and well-flowered. Mr. D. Wilson, gr., Westmount, was let fo three plants. Odontoglossum Pescatorei had one spike of large size, with flowers finely developed. Mr. Geo. Westors Pollickshiels, was Ind. The competition for one Orehid was only engaged in by three ezhibitors. Ferns were not eo numarous as at some former exhibitions, but the excellenc of the plants was remarkxble. The Gleichenias of Mr. JoH Mitchell were excellent.

## Cut Flowers

Passing to the adjoining hall, a grand display of cut flowers was seen. Much labour had been expended by the exhibitors in protecting their flowers from the drenching rains. Mr Forbes, nursoryman, Hawick, had a display of spikes of Hollyhocks, Antirrhinums, tec., and Carnations in quantity. Gladiolus were as fine as we have seen them in Scotland Mr. Smite's 1st prize stan? was remarkable for cleanness ive, and fine form. Mr. M. CAMPBELL, nurseryman. Blantyre had a large and choice selection of Carnations, Cannas, \&cc His bunches of Carnation Valkyrie were much admired. Cannas rich in colour were Madame Soubeyrand, Lutea plendens, Exploratur Crampel, and Madame Crozy. Mr Campbell had also a capital collection of Dahlias,
In another hall Mr. Cutebertson had a display of herbaceous plants, Liliumas, Phlozes, Helianthus in variety, Tritomas, Coreopsis lanceolata (one of the best flowers on thi gorgeous table, 26 feet long). Pansies in quantity, and thei new Violas, Mrs. R, K. Mitchall, William Haig, aud Sweet ness, were woll exbibited. Me, Smellie's Pangies, in such variaty, made a great show; Viola sprays filled long tables Mesors. Dobbir a Co., of Rothesny, staged a large exhibit embracing great variety. Cannas were very attractive: Queed Charlotte, Madame Crozy, and Premaier de Neice are very pretty varieties; Cactus Dahliau, including such attractive varieties as Sir Walter Scott, Diady Dinmont, and Pirate, were beautiful and distinct. This exhibit was backed with a selection of Puchoiss in pots. A selection of Celery, red and selection of Fuchsias in pots. A selection of Celery, red an
Asters, Sweet Peas, Marigolds were passed, and then we pruqed to see the fine exhibits of Roqes. Messrs. COCk Sovs, Aberdeen, had a lst prize lot, which at any season would be considered firat-rate; Captain Hayward, Caroline Testout, Mrs. J. Laing, Gustave Piganneau, Alice Brunner, Louis van Houtte, and Prince Arthur were amongyt the finest blooms. Mr. Crolir, Dundee, had a good collection, being und.

Fruit.
There was the uswal excitement over the exhibite of fruit The display of Grapes was equal to that of former years Black Hamburghs were remarkably fine in colour and size of berry, well as in bunch. Mr. MENzTES, Dunipace Gardens, was again lat, a powition which he has held for three seacons past; Mr. Whitw, the Castlo, Large, was a good 2nd.
In a clase for any Grape other than Black Hamburgh, Mr THomgow, ke. at Wheatlands, had a pair of mrand banches of Muscat Hamburgh, which excelled the Alicantien, Madresfield Court, and othery; Mascat of Alexandria was largaly repre erted. Mr. KTPD wne lot with fae exmples from Carbery Towers; Mr. McCowocite, Cumeron House, wac i good 2nd In the claes of four bunches Mr. Litsert, Fitcallen, Perth, was

1st, his Madresfield Court, Muscats, Alicantes, and Gros Mwo being of great merit; Mr. MCCONOCHIE was a close 2nd.
The collections of fruit were good. Mr. D. MUrray, Cul zean, was 1st for thirteen dishes, all of much excelleme, ood smooth Cayenne Pineapple, capital Noblease Peachem Elruge and Pineapple Nectarines, were among the beat freith hich this exhibitor ever tabled; we have seen finer Grpes from Culzean. Mr. McBean, Craigends, was 2nd, hie Gmpe ing his best dishes
In the class for six sorts, Mr. LesLiE, Perth, wat let, hit Peaches were remarkably fine; Muscat and Black Hambay Grapes good; Mr. Hallidiy was 2ad. Melons were nome ouq and were jindged uncut. Peaches were finely coloand and Mr. McBeav's six fruits were large, and had lat priza Plums and outside fruit generally was not of more than avetas in quality. Apples of the larger kitchen sorts were very fim and more highly coloured than we should have expected. Smitir, Roselea, had two dozen splendid Apples.
Vegetables were excellent. Mr. Mobean had 1st priva fer hirteen sorts, which were of the highest merit, and the Vaith Memorial Prize was also awarded him. The 2nd prize went Mr. Browr, gr. Houston, for a collection little inferioe McBean's. In the class for siz sorts, Mr. McBear wall and Mr. Brown, 2nd, for Messrs. Sutton's prizes. Calms Onions, Leeke, Carrots, and the fifty pots of Parsley, wend finest quality. Altogether, the exhibition was satistudery to all.
The judging of baskets of flower bouquets, sprays, crom ce, which was done by ladies, require much patience al knowledge, as the numbers and variety were bewildering
A novelty in economics was the exhibit of teakwod pote Orchid stakes, \&c., from Mr. Jornston, Paisley. The dart ness of the Standrey Halls is much against the appearance 0 such a grand display


The term "socumulated tomperature" indicates the agat gate amount, as well as the duration, of the pais named : and this combined result is expresed ir hy wenty-four hours or any other number an inversely proportional namber of hours.


The dietriote indionted by sumber in the first columin in


## TH B PA8T W EEA. 保

The following summary record of the weather fis furnithed the British Islands for the weet on

The weither continued very fine and dry genesilly mir great*r part of England until the night of the 66h, mish aevere thunderatorms, socompanied by heary were experienced over our southern and eastern co most parts of Ireland, Scotland, and the north-west o the conditions were again

- The temperature arceeded the mean fa all district
exceas being as much as $4^{\circ}$ or $5^{\circ}$ over eastern, southem, and runtral England. The highest of the maxima, which were recorded on rather irregular dates, varied from $85^{\circ} \mathrm{in}$ ' Eng . lans, F.,' $a_{4}^{\prime}$ ' in the 'Midland Counties,' and $83^{\circ}$ in ' England
 The lowent of the minims were registered at the beginning of the wefk orer England, but towards its close over Ireland and Scotland; they ranget from $34^{\circ}$ to $35^{\circ}$ in Scotland, from $40^{\circ}$ to $42^{\circ}$ in Ireland, and from $38^{\circ}$ to $46^{\circ}$ over England; in the 'Channel Islands' the lowest reading was 5

The rainfall was less than the mean in most districts, but just equallet it in 'England, E. and S.o' and exceeded it in 'Scotland, N.' and ' Eagland, N.W.' At all our most southern and south-eastern stations, the only rain occurred during the thunderstorm noted above, when large amounts ware reported is many place

The bright sumshine exceeded the mean in all district encepting 'Scotland, N." The percentage of the possible duration ranged from $63 \mathrm{in}^{4}$ England, 8.' and the "Channel Islandn, and 62 in 'England, E." to 40 in "England, N.E." and ore Ireland, 35 in 'Rngland, N.W., and 28 in 'Scotland, $\mathbf{N}$.

## MARKET8

## COVENT GARDEN, September 12.

We cannot acoept any responsibility for the subjoined roports. They are farnished to us regularly every Thursday, by the kindness of several of the principal salesmen, who revise the list, and who are responeible for the quotations. It must be remembered that these quotations do not represent the prrices on any particular day, but only the general averagee for the woor proceding gaality of the eamples the supply in the marret, and the demand and they may fluctuate, not only from day to day, but often several times in one dav. ED. 1
OUT Flowers.-Average Wholesale Pardes.
 Bouvardias, per bun. Carmations, per 12 bloome
Chrysanthemums. per 12 blooms Chrysanthemams, per 12 bunches. Gardenias, per dop Gladiolus, p. 12 sps. Iapageria, 12 blms. Laverder, doz, ban. doren bloomas .o. per dozen bloom, Maiderhair Fern per 12 bunches ... Margueriten 12 bo

| $20=40$ | Mignonette, per 12 <br> bunches ... ... |  |
| :---: | :---: | :---: |
| 30 | Orahids :- |  |
| 06-1 | Oattleya, 12 blma |  |
| 06-1 | Odontoglosama orispum, 12 blm. |  |
| 0 | elargoniume, carlet, per 12 bunch |  |
| $10-20$ | 12 sprays |  |
|  | Pyrethrumas, 12 b |  |
| 40-9 | Rosee, Tea. per doz |  |
| $6-$ | - coloured, p.dz |  |
| $20-4$ | yellow (Maré |  |
| 0 6-1 | chals), per doz. |  |
| 6 | - red, per dozen |  |
|  | - mixed. p. dos. bunches $\qquad$ |  |
| $0-10$ | 8tophanotis, dozen epray: |  |
| 0216 | Sunflower (emall), doz bunches ... |  |
|  | eet Peas, 12 b | 20 |
|  |  |  | oncrid-blon in variety.

Fbutt,-Average wholpale Pbiots.

Apples, per bueh....


Grapes, Guernsey. Melons, each Rine-apples, 8 . Mi Peaches, 1stsize, do - 2nd size Pears, per bush. Plams, half sieve. Plums. Pott's aeed Pluma, Pott's seed-
ling, half sieve ... 36-4 0

s. d. I.d. | 0 |  |
| :--- | :--- |
| 1 | $6-19$ |
| 0 | 1 | $\begin{array}{lll}2 & 0-6 & 0 \\ 4 & 0-8 & 0\end{array}$ $40-60$

$40-80$
$20-3$ $9-10$
$20-40$
$6-3$

Plante in Pots.-Average Wholhalle Phioka.

 - specimen, each $50-15$

Asters, per dozen
pots
Chrysanthmums, $\ddot{p}$.
doz. pots.
Coleus, per dozen...
Cyperus, per coz
1racyena, each
Evergreen Shrubs,
in variety, per

ous, doz. 5 u-12 0
Fuchsias, per doz. Heliotrope, per doz $\begin{array}{lll}\text { Hydrangeas, p. doz. } & \text { q } 0-80 \\ \text { U-24 } & 0\end{array}$ Lilium Harrisii, per
$60-120$


## Potatos

Beat samples, good demand at \&it to et 10s.; ordinary, el 10s. to e3. Supplies heavy. J. B. Thomas.

FRUITS AND VEGETABLES.
Borover : Sept. 10.-Quotations :-Carrote, 1u. 9d. to 30.6d. per dozes bupches; Turnipe, 1s. 6d, to s. ver bas; Ouious,

andle: Apples, 1s. 6d. to 4x. per hushel: Peare, 1s. ©d. to 8. 6a . per buehel: Plums, 2s. to 2s. 6d. per half-sieve.

Spitalfieldes: Sept. 10.- Quotations: Scarlet Beans, 1s. 6d. to 2s. per hushel; Vegetable Marrows, 2s. to 2s.6d. per tally: Cabbages, 4s. to 5 s . per tally: Oniona, 3s, to 3 s sd . per beg: Carrots. 2s. to 2s. $6 d$. per dozen bunchea; Turnips 2s. $6 d$. to 月s. per dozen buaches - Horseradish, is. per bundle 2s. $6 d$. to 88. per dozen bunches: Horseradish, is. per bundle
Apples, Keswick Codlins, 1s. 61 . to 2s. per bushel; do. Coun Apples, Keswick Codlins, 1s. 64 . to 2s. per bushel; do.
cillors, 2 s . to 2 s .6 d . do. ; Luffingtons. 2s. to 2s. 6 d . do.
\$TRATFORD, Sept. 11.-There hambeen a fair supply of all kinds of fruit and vegetables, but trade has been rather alow -Oabbagea, 2s. to 5s. per tally; Cauliflowers, 1s. to 18. 6d per dozen; do.. 5s. to 7t. per tally; Tumips, 2s. 6d. to 38 per dozen bunches; Carrots, household, 2 tss. to 30s. per ton 18. to 18. 6d. per dozen bunches; Mangela, 118 s. to 18s. per 18. to 18. $6 d$. per dozen bunches; Mangela, 158 . to 188 . pet ton; Swedes, 17s. to 20s. do. : Onions, Knglish, 1s. to 1s.6d. pe dozen bunches: do., Dutch, 2s. 6d. to 3s. per bag; do., Ghent 28. $6 d$, to 2s. 8 d . per cace; do., Port, 48. 6d. to 3s. 6 d . do Applex, English, cookers, 1s. to 2s. 6d, per bushel: do lescort, 2s. to 4s. per bushel; Watercreapen, 5s. to bs. per hamper; Plums, ordinary, $1 s, 3 d$. to 2 s . 8 d . per half-sieve
do., Victorias, 2 s , to $2 \mathrm{~s}, 9 d$. per half-sieve; Greengages. 4 s do. Victorias, 28. to 28 . $9 d$. per half-sieve; Oreongages, $4 s$ to 4s. Ad. per half-xieve; Damsons, 1 s . 9 d , to $2 \mathrm{~s}, 3 \mathrm{~d}$. per half-
sieve; Tomatos, English, 2 s , to 3 s . per peck; foreign, 1 s .7 d , sieve; Tomatos, Fnglish, 2s, to 3 s . per peck; foreign, 1s. $\mathcal{i}$ d
to 28 . per box; Cucumber, frame, 1s. to 2s. 6d. per dozen do., field, $4 d$. to $6 d$. per dozen; Beans, Scarlet, $18.3 d$. to 28 per bushel; do., 2s. 6d. to 3s. 6d. per bag; Beetroot, 28. to 3s. per donen bunches : Celery, 1s. to 1s. 3d. per roll ; Parsley 18 . to $18.6 d$, par dozen bunchea.

Fanrivgdon: Sspt. 12.-Quotations:- Apples, Manx Codlin, 2s. 6d, to $3 s$. per bushel ; Golden Knobe, 3s. per half-bushel: Pears, Williams, 3s. 6d, to 4s. per half-buthel Hazel do, 3s. per bushel: Peaches, 68. per case Grapes, 8panish, 7s. per barrel, white: 9s. 6d. do black: Plums, blue, 98. 6d, per half-bushel ; bent, 48. 6d. per half-buthel; Tomatos, 3s. per basket of 12 lb . Cucumbers 28. per dozen; Cauliflowerv, 18. 6 d . to 2s. por dozen; Cabbages. 18. $6 d$. par dozen; Beans, 3s, per bushel; Marrows, 1s. per dozen: Turnips, 3s, per dozen bunches. Oarrots 3s per dozen basches. Horseradish is to $18.3 d$ perbundle Beetroat 3 s 6d. per doz. banches; Onions, 28 . per bag; Mint, Thyme, 3s, per dozen bupches; \$age, 2s. per dozea; Parsley. 3s. do.

## HAY

Averages.-The following are the averages of prione at the principal metropolitan markete during the past week:Clover, prime, 90s. to 110 s ; do. inferior, 50 s . to 80 s . i hay beet, 60s. to 908 . ; do., inferior, 36s. to 60 s . ; mixture, 70s, to 92 s .6 d . ; and Straw, 20s. to 38s. per loed.


- Owing to the large increase in our circulation, toe are reluctantly under the necessity of goinp to press some houre earller. Our contributors, who wall know what this implies, will kindly aid us by sending their communications as carly in the week as possible. Communications should rench us not later than Wednesday.
- Plants, FRuts, MTO. To Ba Named.-Correspondents sending plants or fruits to be named, or asking question demanding time and research for their solution, must not expect to obtain an answer to their enquiries in the current week. Specimens should be good ones, carefully packed and numbered and not more than six should be sent at one time. Leaves only, or
Apples: R.N. Apples are frequently preserved by drying for fature ase in this country. The method of doing this have been repoatediy written upon in these pages, and we may refer you to our insue for Dec. 5, 1891, p. 680 and p. 53 of ame volume. In the latter page is also figured s very convenien machine for evaporating fresh fruit. It is manu factured by Ph, Mayfarth \& Co., Frankfart, and may be had in suitable sizes for tresting amall or large quantities. Oae of thene machines was at Chinwick for some time, and the result was very satisfactory. Further references in Gardeners Chrowicle are Sept. 10, 1892, p. 308, and Oct. 22 1892, p. 497. You might obtain all information in regard to fruit evaporation by writing to Mr A. Ludwig, F.R.H.S., 16, Mincing Lane, London, E.C.

Astras: G. S. Your Aater roote are attacked by yruos allied to theme of the Cockchafer, probably those of the Cockchafer itself. R. McL.
Berberis: Dummy. Please catch the insect, and we will endeavoar to name it for you.
Books: E F.B. 1, The London Market Gardens, by C. W. Shaw, puilithed at 37, Sjatbamptoa Sireet, Covent Garden, W.C. This book may not give you all the information you require, but it is tho beat wo can recommend yon. 2. Hawdy Book of Bees, by A. Pettigrew, publiabed by Wa. Bleck wood \& Sons, E linbergh and London.

Cannations: A. J. $H$. Imposible to form an opinion; the flowers were dried to tinder.
Emplotment in America of the Colontes: Gatdener. We possess no convenient mesn by which to transfer young gardeners from sitaations in Eagland to aimilar employment in America or the colonies. There are racancies frequently ariving for nuitabla men in such places, as ovidenced by advertiaement which appear in this and othe Journale. You would do well to advertiae, or write to some of the leading narserymen in the country you wish to remove to.
Ficus elastica: J. E. P., Altrincham. The plante of Ficut elastica were probably grown on bottomheat or in a very warm house before you got them, and the chinge has caused the damage to the young growthm. When the plante get catablished with you they will no doubt thrive.
Fucasias: W. R. Flowers quite withored; send them to nome grower of thee plants.
Haw's Patent Watering.can: W. C., Jamaica. These cans may be obtained through most of the horticultural andriesmen.
Molberey Leatrs: E, C. C. D. Not at all uncommon, eapecially on the etronger growing shoots.
Mumay Pia: H. Stark noneense, often exponed in these columns. The Peas are "fasciated," as often happens when plante are grown vigorously. The condition has become hereditary. The plant has been figured in our columne as the Crown Pes.
Names of Fruits: (see notice under Names of Plants). Croft. 1, Bienheim Orange; 2. Court of Wick 3. Callini; 4, Manx Cudlin; 5, Golden Noble 6, Fearn's Pıppin; 7. Damelow's Ssedling.-J. $P$. 1, Hawthornden; 2 Ribston Pippin; 3. Fmperor Alexander; 4. Cellini; 5. Gloria Mandi; 6, Small's Admirable.-J. A. F. 1, New Hawthornden; 2. Tower of G!amis ; 3, Lord Gronvenor ; 5 Lord Darbs; 6. Dimelow's Ssedling.-C.E.' 1 Gravenatein; 2, 3, not recognised; you should end better pecimens.-T. $K$. Apple Yellow Ingeatre. Pears amall, and partly decayed. We cannot name ach frait.-H. Humphreys. Pear Baurré Clairgean.-A. J. B. Peaches all braised beyond recognition during transit. - F. $F_{\text {. The }}$ Grapes sent are undoubtedly Black Hamburghn, but not yet quite ripe ; other frait next week.
Nampe of Plants: Correspondents not answered in this issue are requested to consult the next number. Bloomfield. 1, Caryaanthomam lacuatre; 3, Tradeacantia virginica; 4, Agathea coelentis ; 5, Montbretia crocomillora; 7, Kerria japonica; 8 . Leycesteria formosa; 9, Asphodelunluteus. Two had no labela, one Solidago canadentis, the other Alstromeria paittacias.-S.W. O. H. Clethra arbores. -Northleigh. Cævalpinia pulcherrima.-R.R. 1 , Soires D juglasi ; 2, Asclepias incarnata; 3, Dracocapbalum virginianam; 4, Centararea macrocephala; 5, Kerria japonica variegata; 6, Periploca greca.-C. A. Datura Stramoniam, Thorn Apple.-C. W. 1, Spiræa Thunbergi 2, Enonymuer radican: 3, Retinospora aquarros 4. E'sugnus pungen: var.; 5, Olearia Haswi 6. Skimmia japonica. - Mrs. H. Hieraciam aurantiacum.-G.B.S. 1, Codonophie ovata (ree fig. 59) ; 2, Scatellaria, probably S. columng; 3


Fig. 69.-codomopgis ofata : FLowerg pale blut, fetto.

Hieraciam surintiscam ; 4, probably Pammaivis Hookeriana, allied to Vaccininm: 5, Genieta tiactoria; 6, Antrantia major: 7. Daranta Plamierii, - H. Fo, Jeede, Zygopetalum Mackajil.

Nectarine on Prach-tree: James Vert. Such a circumstance does not commonly occur, bat inetances have again and again been recorded. We have observed one case this season ourselves in the nursery of Mr. Walker at Ham Common, where both fruits were to be seen on the same ahoot. We were afterwards informed by Mr Walker that the fruit had fallen during stoning In the Gardeners' Chronicle for Jaly 13 last, we figured a composite fruit with well-defined sections of Peach and Nectarine, and this we think is even more remarkable than the other case. It goes to prove that there is no real or botanical difference between the fraity, and the one may revert to the other apon occasion, but at present we have no knowledge as to the precise circumstances that tend to this reversion.
Nicgolson's Dictionary ": N. C. It would be a very large book indeed that contained the name of every plant. Mr. Nicholson's Dictionary professen only to include the names of plants that are worth cultivating in gardens, and a very liberal idea ha been followed in regard to anch. Senecio viscons and Chenopodinm polyspermum are British plants-weeds, if we may use the term and deacriptiona of them may be found in Bentham and Hooker's British Flora. Nicotiana rustica is a pood name, and is mentioned in the Treasury of Botany, and later in Index Kewensis, the standard work on horticultural nomenclature.
Packing Grapes: Old Packer. In our opinion the method you describe is not a good one. There thould be much less material about the frait, no tying at the endr, and the banche should not be laid on top of each other, as it would appear from your deacription they are placed, in the case you speak of. Many excellent aytem of packing Grape for railway tranait have been deacribed and figured in theme column. See reference given to a correspondent in our last isere.
Plums: R. N. H. The Silver-leaf divese-the cause in not known. There is no fungus.
Roors: J. McL., Ireland. Dynamite, or gunpowder, but preferably the former, is frequently used in order to blow up the roote of large trees, which have been felled, and by such means a great saving in labour in made. If you have had no previous experience in such an operation, however, we cannot advise you to employ these explosives, unless you obtain the assistance of some one who thoroughly understand their use.
Solss: K. M.G. We do not undertake to analyas coils, bat you would probably obtain the analyais of a ample by zending it to Dr. Djer, Great Tower Street, London, E.C. The fee will be from one to two guineas.
Vinery Infested With Insect Pests: T. O. From the description you give of the lesves it is Jukely that mont of the injury reault from red-apider, but if thrips and acale are very numerous also, there will be considerable difficulty experienced in saving the appearance of the Gro Colmar Grapes. You might try the aulphur cure in order to get rid of the apider, adopting the unal method of heating the hot-water pipes very hot at night, and daubing them over with sulphar, at the aame time kefping the house clowed during the operation. At the Grapes are colouring, you mant be careful in any process that it be not overdone. Sponge the foliage frequently, and if time in not available to go over all the folinge, aponge around each bunch of fruit, and when the crop has been gathered, more dratic methode can be adopted.

## ing Compations Receiven.-National Nureeryman Publioh

 ing Company.-C. de B.-J. H. V. - B, P.-Osman \& Co. Portici.-E. B,-H.J. C.-C. H. A.-Rovelli frères.-G. M G. H.-R. W.-J.P. \& Sons.-T, F.-W, E, G. La - C. C. . P. F.-LeS.-H. M. (with thanks) -J. D.-P. M. - R. D. C. C. (rection of wood received with thanls)., and others.

[^24]

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12 feet " 4 feet " PRICBS
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 , Thorpe's ha Broken paren placed indary placed ingtanth
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## GLASS! CHEAP GLASSI

16 -oz, per $100 \mathrm{ft}_{\mathrm{os}}, 7 \mathrm{Ts}, 6 \mathrm{~d},\left\{\begin{array}{l}12 \times 10,18 \times 12,18 \times 14,24 \times 11 \\ 14 \times 12,30 \times 12,18 \times 16,24 \times 18\end{array}\right.$ $10 \mathrm{~s}_{\mathrm{o}} 0 \mathrm{~d}_{0}\left\{\begin{array}{l}18 \times 12,16 \times 14,20 \times 16,24 \times 18, \text {, } \\ 16\end{array}\right.$ $14 \times 3$ Prepared Sash Bar at 5s. per 100 feet. Flooring. $5 / 9$ per square; Matching, $4 / 9 ; 2 \times 4$, at $/ 4$ foot run. Garden Utensile, Trellis, Lronmongery, Puith Catalogues free

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October 16．－At the NURSERY，PUTNEXY，by order of Mesars． Mahood \＆Son．
October 18．－At the LOUGHBOROUGH PARK NURSERIRS，
Brixton，by order of Misers Ponatord atober 21，22，23． 220 ． 2 ． sHOT，by order of Mr．Chas．Noble（six days）
Oetober 23．－At the PERBY HILL NURSERIES，CLIFPE near ROCHESTER，Ninth Annual Unreserved Sale Fruit Trees，by order of Mr．W．Horne．
October 24 and 25 －－At the GOLDSMITH＇S PARK NUR－ SERIES，GROOMBRIDGE，near TUNBRIDGE WELLS by order of the Exors，of the late Mr．E．Hollamby（two days）．
October 99 and 30 ．－At the HALE FARM NURSERIES，TOT－ TENHAM，Great Annual Sale，by order of Mr．T．8．Ware （two days）
October 29，30，and 31．－At the HORSELL NURSERIES， WOKTNG STATION，by order of Meagrs．H，\＆C．Cobbeti （three days）．

Dates not fited．
At the SAXE WEIMER NURSERIES，SOUTHSEA，by order of Mr．T．J．Short（one day）．
the CART HOUSE LANE NURSERIES，WOKING Mhen．by order of Mtr．R．Collyer．
At the NURSERIES，LINCOLN，by order of Mearr．Panaell a sons（one day）．
Mesars．Protheroe \＆Morris will be pleased to forward Auction and Eatate Offiees， 67 and 8 ，

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MESSRB．PROTHEROE AND MORRIS will and n8，Cheeppide，London，at． large consignments of NAMED HYACINTHS to suit the Trade and P and other BULBS from Holland，lotte Also R（MMAN HYACINTH Buyers．
DROPS，\＆c．HYACINTHS，LILIUM CANDIDUM，SNOW

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Maidenhead．－Annual Unreserved Clearance sale of Well grown OREENHOUSE PLANTS，BULBS，and

MESSRS．PROTHEROE AND MORRIS will SELL by Alfocion on the Premises，the Floral Nur－ getietion，G．W．B．On Wille Maidenheed，one mile from Maidenheend
 Phintiab Cannas， 500 Cyclamens， 500 Prizulas and other Olimbers，Herbecooun Flantsels and othor shrubs，Hardy Iris，Chiriese Sacred Tiliee Navcisawn，Onan Iris， 20,000 Bulbs，
May be riewed．Cateloguen
Avetionoors， 07 and 88 ，Clequaphade，Londom，E． 0 ，

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Among the principal plants，the following may be apeoially

> Cattleya Mendeli, extra fi Triane, extra fine Triange，extra fine Hardyana
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Trianee，Backhouseana
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labiata alba
Lee＇s variety
Speciosisaima San－
Reineckiana
Gaskelliana alba
Chocoensis alba
Trianæ albe
Eroniensis
Massaiana
3 Cuelogyne cristata alba
2 Cypripedium Leeanum perbum
Q．D．Owen
Charoderæ superba
Charles Richman
Antigone
Antigone
Lathoinianim
grande
Morganix Burfordense
verillarium superbum
Winifred Hollington，
insigne，Sandero type
argus Moensi
Won pidis ultra
Morganise
Hardyanu
Niobe
conanthum superbum
Schrodere
Aylingii
Leeanum giganteum
Calypso varieties
Maseelianum
Patarsonif
Cahuzac
Leucheanum
Barteli
Eyermannianum
Youngianum
Alice
rrande atratum
Omenianum
Malyanum
＂，Ashboryanum superbum
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200 ODONTOGLOSSUM ALEXANDR 2 －nearly the whole have been bought in flower，and only the very best selected dontoglowum crispum Maudiana， 0 ．Wilokennum．
Phaius Oweniana $\mid$ Pachystoma Thomeoniana

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DRA（Canderian train），and ONCIDIUM ROGFRSIT
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$\mathbf{M}^{1}$ESSRS．PROTHEROE AND MORRLS giving up the cultivation of Orchids，to SELL by 40 OT on the Premises，The Firs，Laurie Part，Sydenham，an NESDAY and THURSDAY，October 16 and 17 ．With whe least Reserve，the SECOND and MAIN PORTIOX dH well－known COLLEOTION，comprising，among other pain the very beat varieties of Odontoglossum Alexander（ and spotted formas），O．Peacatorei，and many hybrids of em telet beauty，that haro received First－cless corbiticteri electod var，Mossim，C，， H dec；grand speci

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And Continue Open a period of Six Months.

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HRALTE AND HYGIENE
BPOHTS AND PABTIMES AND AMATEUR EXEIDITH
MAOHINERY, ELEOTEICITY, AND LOCAL AND GENERAL
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## SALES BY AUCTION - SPECIAL ANNOUNCEMENT.

MESSRS. LINDEN, of "L'Horticulture Internationale," Parc Leopold, Brussels, beg to announce that they have made arrangements with Mr. J. C. STEVENS, of 38, KING STREET, COVENT GARDEN, W.C., to hold ALL THEIR SALES FOR THE FUTURE at his Rooms. These Sales will take place the FIRST and THIRD THURSDAY in the Month throughout the year, weather permitting.

Royal Parks, \&ce-Grags seeds.
THE COMMISSIUNERS of H.M. WORKS, Of \&RA, are preparet to receive TENDERS for the SU PPLY year 1896. orms of Tender, containing full particulars, may be obtained at this Office any day except Saturday, between the hours of 12 and 3.
Tenders are to be delivered before $120^{\prime}$ Clock poon on ThursCay, October 3, addressed to "The Secretary, H. M. Office of Works, 12, Whitehall Plare, London, 8 W," and marked on the outside, "Tender for Grass seeds, Royal 'Parks, ac. The Commissioners do not bind themselves to accept the lowest or any Tender

REGINALD B. BRETT, Secretary, H.M. Office of Works, 12, Whitehall Place, S. W September 21, 1895.

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September 21, 1895.

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## THE

## Gardemers Chronidle.

SATURDAY, SEPTEMBER 21, 1805.

THE ROSE SEASON OF 1895.

AFTER all, we can say with some degree of oonfidence, that the past summer has been far from a bad one for Roses. The prospeots after the frost broke up were not reassuring; complaints oame from all quarters of the heavy lom and damage whioh had resulted. Some of these were ourious, for results were very different in the same districts, and the difference could hardly be traoed to soil or position. A warm and dry spring without an exceptionally sharp late frost, furnished the best possible result from the little wood that was spared, and one of the features of the season has been the beauty of the garden or decorative Roses. Many of these are not only less hardy of themselves than others, but their long growths are more fully exposed to the weather. Muoh of the injury during the frost was oaused by the sudden and extreme ohanges in temperature. At night a frost of about $20^{\circ}$ or more frequently ooourred, and day by day during a few hours at mid-day the wood was thawed, and upon walle a warm temperature produced by the brightness of the aun. This alternate freezing and thawing was most harmful, and as we ohiefly grow our olimbers and garden Roses upon walls or in sheltered places, they naturally suffered severely. Under such oiroumstanoes, it was surprising to see garden Roses so good as they have been. At the earlient and latest shows they were as good as in any previons season. Some of this may be the result of their more extended culture; still, there is the fact, that at Gloucester and at Derby we saw some truly splendid stands of garden Roses.

Teas and Noisettes, too, notwithstanding the idea (atill more prevalent than I could have credited) of their extreme tenderness, have been very good. Undoubtedly, the best of these were seen at Glonoester, although some good blooms were exhibited at the National Rose Sooiety's meeting at Derby. I think the oompetition at Gloucester, the Crystal Palace, and Derby, as well as the many other Rose exhibitions held in the country, was greater even than usual, while in many oases there were more exhibitors than I expected. But here, in mid-Sussex, we had a worse time than many of my rosarian friends. Upon all of my maiden beds the effects are still seen. Even now many buds and breali upon standards and half-standards are disappointiagly puny. It aeoms as though the cold had pinched or bound the barle in suoh a way, that it was unable to swell and allow of a healthy junotion and growth of Rose and stock, while in a large number of cases, the dormant bud was killed outright. At pruning-time I did not expect to see so good a Rose season; indeed, it seemed quite impos,ible under the most favourable conditions of spring and summer. But we have few flowering shrubs that recover so quickly as the Rose. This more eapeoially applies to the Teas
and Noisettes. No doubt many of ns, too, were led to give a little extra care and attention to our Roses after the severe ordeal they had gone through.

Growth, enpecially that of the later breaks, was healthy and clean, there being lens maggot and fly than uaual; but as the meason advanced, I was much troubled with the tem-boring saw-fly and amall Rose-chafers. Later still, we had a swarm of small hard bage, a ministure beetle in sppearance, which injured the blooms badly. They were even worse than the large and dark brown thrips sometimes experienced, which are ach a nuisance among our lighter-coloured varieties late in the season. A rather prolonged droaght then checked growth aerioualy, just at our first crop of bloom was being realised; but the rain which followed upon the warm ground caused a very apeedy change for the better. During this change, mildew, at usnal, sppeared. I have had many enquirie of late for a recipe for mildew outdoors. Many remedien have been tried, bat none reems to me to be effective unlens under glame. Nor can we expect to eucceed so long an the main cause are bejond our control. We can do something, however, by chooving siten that are not naturally draughty; and by avoiding the other extreme, namely, a close and waltry atmomphere at midday, with a great change at night, as is experienced in Rose garden that are much enclosed. More especially is this extreme noticeable in the late anmmer and autumn, when we are always more affected with mildew than at other times. Then, again, we ahould not plant that victim of mildewHer Majenty-among other Roses. Innocente Pirola and Souvenir de Paul Neyron are also very anbject to attacks, and it seema a mistake to place them among a general collection, which in many casen would have got the better of a slight attack if anch contagions company were not present.

Writing of Her Majenty reminds me that this variety wat the Rone of 1895 . We generally find one or more Roses atanding out conmpicuously among the rest, and Her Majesty has done so during the past nummer. It won the medal as being the best Hybrid Perpetaal in the whole exhibition at the Cryatal Palace, taking this honour both in the nurserymen's and amatearn' division. We had one more Rose take two of theme silver medals during 1895, once at the Palace and again at Derby. This was Comtesse de Nadaillac, but upon neither occasion was there that depth of colour so remarkable in the Comtense as grown at Oxford. Rarely is there a season When thil grand Tea doen not carry off one or more silver medaln. While we have a few mont pertiatent winners of thim honour, auch an the Comtesse, Horace Vernet, The Bride, Catherine Mermet, A. K. Williams, and Souvenir d'Elise Vardon, there is frequently some very little-known variety which in capital for a season, and then drops almont out of knowledge in the course of a few season. Lat year we had Marguerite Boudet, this sesmon it wat Comtense de Ludre. While there are many grand Rones that one might expect to appear year after year, Comtene de Nadaillac, Xavier Olibo, and A. K. Williamt are the only three that figure among thim and lath season's twelve Silver Medal Roses of the National Rose Society.

A new feature deserving mention is the giving of a gold medal to be held permanently os a memento of winning the champion challenge trophie in either nurwerymen's or amateurn' divisions. A year's poneanion of the trophy alone, certainly seemed inadequate, and I am glad to see thil change. Bat what ure we to do in the case of past winnern? For example, Mr. B. R. Cant, who won the trophy this ceanon, and wecured the Gold Medal first offered, also won in $1881-8<-83-85-86$, and ' 91 . It might have been an entirely fresh winner, and in such case he would have held an equally valuable proof of success. If the funde should allow, it would be gracefal act to present a Gold Medal for each paas maccess, or else one to each winner, inncribed with the dates of previous nacceases! Memurn, Harknems \& Sont have
won challenge trophie upon nine; Mr B won challenge trophie upon aine; Mr, Bon, Cant,
nine; Rev. J. H. Pemberton, five; and Mr. E. B. Lindsell six occasion. These are the mont frequent winners, but quite half-a-dozen other growera have held this trophy for more than one season.

The Gold Medal for a new Rose was awarded to Helen Keller at the Derby meeting, and here we certainly saw this variety in better form than at the Cryatal Palace. It in a splendid Rose, and good in growth; and some wood which has reached me is ample proof of this. New Roser were an exceptional feature at the metropolitan meeting, and probably the beat $t$ wolve that have been seen were ataged then. No fewer than ten out of the dozen were raised by the exhibitors-a record among new Roses, for we must remember that Ethel Brownlow (one of the Silver Medal Teas of 1895), Margaret Dickson, Earl of Dafferin, and several more grand varieties raised by the amme firm were not elegible in this atand.
Of the new Roses, I like Helen Keller, Marchioness of Downehire, Marchioness of Londonderry, Avoca, Marquise Lita, and Mra. R. G. Sharman Crawford, with a decided preforence to the latt-named Rose. A port from Catherine Mermet, called Mariel Grahame, is not yet in commerce, but it will make a capital Rose if we are to judge from the blooms exhibited.

I cannot leave the new Roses without once more directing attention to a new Hybrid Sweet Briar, called Jeannie Deans. There is, perhaps, too close a aimilarity between some of the lighter ahades in this new class of Rosen, but no complaint of that kind can be attached to this very bright and nemidouble variety.

Retarning to the garden, I would like to call attention to the freedom from red-rut among our Hybrid Perpetuala. The true Teas and Noisettes are not troubled with thim enemy, nor are several of the Hybrid Teas and the Ragona varietien. By the way, Rona rugosa calocarpa is mont distinct, and I believe will be very popular. Perhap no Roses are more generally liked than these, when once they have been grown. Always gay from the time leaves are put forth antil winter is with $u$, in bloom, berry, and foliage ; thoroughly hardy, good in town or country, and never attacked by mildew or red ruat. I should find it a difficult matter to choose a flowering shrab of more reliable and lasting decorative value than these Japanese Rosen.

Although I have headed this article the past Rowe season, a plentiful apply of bloom in atill with na, and as time goes on and we get improved varieties, our season get considerably extended. Still, the Rowe season proper is undoubtedly past. Teas and Noisette chiefly figure among our late ammer and antumal Roses-indeed, I have the fourth diatinct crop of William Allen Richardson upon an outaide wall; and it is the amme with many varieties in these classes, and among the beat of the hybrid Teas, wach as Viscountess Folkestone, Caroline Teatout, Gastave Regis, and Marquis of Salisbury.
There is a great improvement in the appearance of Rose-stocks, and our forebodings of epring, when the dry weather threatened little growth, and therefore the risk of a amall percentage taking the bud, have now happily been dispelled. Nor have I meen the bude in better condition than at present. Lateplanted atandard Briars did badly; bat those set-in during early winter are fairly good $\mathcal{A}, P$.

## New or Noteworthy Plants.

MASDEVALLTA LAWRENCEI, Kränzlin.*
This plant in in foliage and wise like a mall specimen of Masdevallia tovaren*is, and the flowers, Which are $\frac{7}{}$ to $\frac{1}{3}$ amaller, have also a slight rememblance to this apecien. They arise from the top of the flower-atalk successively, and not at one

[^27]time, an in M. tovarensis ; and an examination showe that the resemblance is merely superficial The tube of the flower is covered inside with numerous snd beartiful epottings, but with a lean of some power these spottings prove to be little warth, with a serrated surface; the lateral sepals are widsly separated, and the dorsal one is united with the two others for nearly it whole length. The petals and the lip are rather thick and flesby, the lattec thickened and eerrated at the apex. I believe thin is the plant which Mr. Rolfe named Matevalia guttulata in Gard. Chron. Sept. 6, 1890, ii, p. 2m, The name has to be changed because another apacies, under the name of M. gattulata, was pabliahed by Professor Raichenbach in 1877 ; the latter is quith a different plant, and more in the way of $\mathrm{M}_{\text {, has. }}$ charis, Rehb. f. The only resemblance consided it the small spotiting on a white groand. I am indetad to Sir Trevor Lawrence, Bart, for fresh material d this interesting specien, F. Krämzlin.

## Staprlia longidens, $N . E \cdot B r$. ( $n$. ap.).

This species is a native of Dolagoa Bay in Sontheast Africa, where it wal originally diccoved by Mrs. Monteiro, who eent flowers of it to Ker in 1883 ; aince then it has been introduced into cultivation by W. H. Tillett, Esq., of Norwich, with whom it first flowered in October, 1892. So far a the sppearance of the stems is concerned, it is one of the mont remarkable epecie of the genus knom to me, on account of the very long teeth of the tem; the only other epecien that appronchen it in this character is S. Woodii, to which it is the mont nearly allied, bat the teeth are mach longer than in that apecien, and the flowers quite distinct. The following are its characteristics: Stem glabrow, green mottled with purple, $2 \frac{1}{2}$ to 6 inches long 4 to 5 lines thick, obtasely foar-angled, the angla with long, ascending, atout teeth, $\frac{1}{2}$ to 1 inch long, and about $\frac{1}{8}$ inch thick at the bave, terete, gradualls tapering to a fine soft point. Cymes reuile, neveral-flowered. Pedicels $\frac{8}{4}$ inch long, 1 lins thick, glabrous. Sepale 4 lines long, 14 line broad, lanceolate acaminate ; corolla $1 \frac{1}{3}$ inch it diameter, quite glabrous, with a campanalats tabo 21 lines deep (the bottom of it raised up 30 as to form a convex cuwhion aupporting the corona), and horizontally preading lobes $7-8$ linen long, it -5 linen broad, ovate-lanceolste scute, flat ; the colont is pale greenish-yellow, spotted all over with dark purple-brown (cream colour apotted with crimath, according to Mrs. Monteiro), the spote very amall within the tube, increasing in size toward the tipl of the lobes, where they are more or lest confuent Oater corona of 5 abort, quadrate, emarginate lobel, deflexed on the batal cuthion of the corolla, parpleo brown with yellowith side margins; inner coroan of 5 simple, lanceolate, acute loben, inflexed over the apez of the anthers, coarcely gibbous behind, dall yellowish, duated with parple-brown. Follides 7 inches long, $\frac{1}{3}$ an inch thick, gradually tapering to a beak, glabrous, streaked with purple on a pall ground; seed. 5 lines long, 3 lines brom, ovate of elliptic-ovate, crowned with a tuft of hairs, fit wit broadly-winged margins, pale brown. Dolagos Bay N. E. Brown.

## 巴SCHYNANTHUS HILDE. <br> BRANDII (see fig. $62, \mathrm{p} .333$ ).

Plants and needs of this new species of Pichyo nanthus were received at Kow in January, 1894 from Mr. H. H. Hildebrand of Fort Stedmath Shan States, Upper Burma, who found it growing a high altitude in the foreste, its ahort atemi formin is dense tufte apon the trunke of trees, to which 13 clings by means of its roote, which creep into thers. crevices of the bark, finding nourishment thert When in flower it had the appearance of compaci

Iutsole tota naperficie interna pustalis crebris purpuresin tio serratis decors: petalis brevibus linearibus suprs bilotismen triquetris carnosis albidis; labello ablougo lipenricuppros. antice minuto serralato ibl incrassata albido minutisim antice minute serralato ibi incrassate albido millit gatenle pareo-a
cuabion of orange-scarlet. The plants at Kew are grown in a cool, moist house, such an suits Mandevallias, and they have been in flower sioce the apring. The longest atems are 9 inches long, but uanally they are only 6 inches or leas, with few whorls of fleahy tomentose leaver near the top, from which apring the flowers in clasters of from two to nix. They are of a rich flame-acarlet coloar, with a margin of crimson. So far as is known, this is the only apecies of Aschynantbus that can be cultivated in a cool-house, all the others, of which there are about fifty known, being tropical. It is a suitable companion for Sarmienta repens, the pretty little Chilian representative of the order, but it is preferable to that plant-rrom a cultivator's point of view,

The Tomato Re Umberto, known in Naple mader the name of Fiascone, and in France as Merveille d'Italip, furniahes the largest quantity of preserve, which, however, is not of so fine a thavour as that made of other kind. It is coltivated in gardens near the town.
The variety known under the name of Fianconcello, corresponding to the Spanish Tomate cirulla, is distinguished by it Plum-thaped deep icarlet fruit. It is a better cropper than the former, its flavour is finer, and its cultivation is conatantly increasing, to the detriment of the other kind, although it gives less preserve in proportion to ite aizs so These are the varietien of Tomaton grown largely under irrigation. There is, however, another kind, very valuable, because it can be grown without watering-


Fig. 60.-microetylis macrichila.
at any rate-it being mach more eanily kept in health. The plant was figured in the Botanical Magazine, t. 7365. W. Watson.

## I T A L Y .

Tomaros. - This year Tomatos have, in the province of Naplet, flowered rather late, owing to unfavourable weather, and at the end of June there wes but e scanty apply of the variety called Sicily, known in England under the name of Early Red Tomato, or Puwell' Early, a variety which hold the firat plecd for ite precocity. The mont important Nespolitan varieties are the common of Naples, or Padula, grown in certain well-watered ground. clone to the town, and mach sppreciated for its flavour and prodactivenens. Thim variety produces large, flenhy, acarlet fruitr, generally of a round ahape, momewhat depressed in the upper part, and crossed by a deep furrow almont to half of the fruit. It is mach made use of for asace and for preserving, $a$ well an for oating in salad when not quite ripe.
for instance, in the Vesurian sandy grounds, where no other herbaceona kind could be grown during sammer. It is the 0 -called "Ciento a achiocca," which is a sab-variety of the pyriform variety, known in Eag* land under the name of Pear-ahaped Tomato. It is cultivated extensively in Torre-del Greco. The plant is nipped at the point when 4 inchen high, it then ramifien, producing almost erect stems, which grow without supprt. It racemes produce from ten to fifty fraits of a pale red, approaching to orange colour; it is pear-shaped, and hee tranaverse diameter of about $\frac{1}{2}$ inch, and ita flavour is aenuibly acid. Thil fruit may be kept a very long time, and oven in Jane clasters of fraite prodaced in the previons October may be neen. The farmers take them off before their perfect maturity, i.e., when the firat frait begin to tarn into red, and faten them with a atring which they unite at the extremitier, giving the whole an appearance of enormous bunches of Grapes, which vary in weight from 12 to 16 lb . If, however, there is wet weather during growth, the frait lone in proportion ita long-keeping property.

The Hobticulturar Show in Naples.
In connection with an exbibicion of birds, there was the other day a plant and flower-thow in Naples. Owing to the ahort notice, the plant exhibited were rather few in number, but cut flowers and floral arrangement were more namerous. Amongst the exhibits, there were some specialties which to English readers may be of intereat. Dr. G. Mottareale, Portici, Augut, 1895.
(To be oantinced.)

## MICROSTYLIS MACROCHILA.

The genue Microstylis is not a favourite one with Orchid-growers, bat that many of the species are possessed of sufficient beaty, both of leaf and flower, was well exemplified in the pretty groap of them staged in the centre of the fine collection of Orchid in lower exhibited by Mesars. F. Sander \& Co., of St. Albans, at the lant Temple Show of the Royal Horticaltural Society. Two of the prettieat were Microstylia Scotti and M. macrochila (dg. 60), both of which had their pale-green and cream-coloured leaven beautifully mottled with light brown. The flowers of M. macrochila are dark parple, and it appears to be very free in growth and bloom if grown in a moist, warm, and tolerably shady house. After the growth have flowered and matured the leaves fade, and from that time until the next growing-season, water should be withheld or very eparingly afforded. It is the neglect of this resting season, and the habit of watering plants all the year round, which has probably caused the ecarcity of Microatylis in collections.

## FLORIST8' FLOWER8.

## THE SHRUBBY PHLOXES.

Messrs Paul \& Sons grow a fine collection of Paloxes in their intereating hardy plant nursery at B-oxbourne, Herts. All the beat named varieties are here, ach as Etna (Lemoine), almon-acarlet, dark eye; Kosautb, chorry-rose, with a purplish tint in the centre; Carillion, rosy-lake, fine form; Eclairreur, parplish-crimaon, with light eye; Emmanuel Herve, clear lilac, large, fine form ; and many other of the newort and beat. At the O.d Nurseries, Caerhat, there is a fiae collection of reedling in flower at the present time. There miy be some difference of opinion as to which of the two collections is the more beautifal. For my part, I dicide for the afedlinge. Nut only do well-grown seedlinga make beautifal show in the garden, but they are mach more interenting. I am not one of those who fancy that the dwarfer you can get plantin the more ahould they be prized; but the varieties of Phlox decusuata of gardens twenty-five jeara ago, were from 1 to $1 \frac{1}{2}$ foos too tall, and in dry seasons the atema becoming devoid of leaver to a great extent, become decidedly unaightly if not masked by other plante. The height of the newer varietien is much reduced, and the seedling now in flower at Cbeshunt are sturdy specimens, averaging $1 \frac{1}{4}$ foot high. Very few of theme seedlings can be selected which are not an good as the nsmed varieties; and the grest variety of colour amonget them is a noteworthy feature. Some with pare white flowern of exquisite form were very fine; other* exhibited parple-lilac, rose and acarlet tinte-and all of them were of good form, very fow indeed harking back to the primitive type.
Some amsteure may any, "It is all very well for you to recommend meedlings, bat how are we to get them?" My reply to this is, save gour own seed from the best named rarieties. The latter can be obtained direct from any good florist, and in a meason like this it is not difficalt to obtain seed; but in order to have anything like saccess in seedling raising, the flowers hould be crose-fertilised by hand, and wome care and judgment exercised in the blending of the colourt. I have found that if the flowers are not crom-fertilised, an immense namber of planta may be grown, and the varietien will be good, but they will vary in colour but little
or not at all from the parentr. The seed ehould be sown on a hot-bed about February 1; it very soon vegerates, and when the plats have grown 1 inch high, prick them out in boxas, and grow them on near the glass in a warm greenbouse. By procesding in thic manaer, sturdy plants may be had ready to plant out io the open borders about the first week in the month of May-a little earlier will be all the better. If they are planted at about 14 inches asunder, each plant will throw ap one strong size in the sutumn. Although the Phlox is clansed with perenniala, the plants may be had finely in flower in seven or eight month from the time of sowing the seeds. The noil for seedling Phloxes, as for named varieties, should be worked to a good depth, and I never knew them to suffer from over-manuring. If the soil is deep and well mauured, the plant are well sustained through the heat and drought of the aummer. The first year there is only one atem flower to each plant; snd if it is intended to flower them a second jear, they should be replanted about 2 feet asunder, on freah deeply worked, and well manured ground.

The ame treatment is necessary for the named varieties, but a good syatem of propagation mut be carried out. It is easy enough to chop an old Phlox plant into pieces with a apede, and plant them eparately, but this clumsy procedure does not give astiafactory resulta. The best spikes are obtained from plants that have been propagated from cattinge in gentle bottom-heat, and the best cuttings are found on old stools when the plants atart to grow in the spring. If taken off with a heel, and inserted singly in small pots, the roots soon form. Early-propagated plants, grown on till they come into 6 -inch pota, produce handsome spikes, and form verg useful stuff for greenhouse deceration. After flowering, tarn them out of the pote into the open ground, as recommended above for seedlinga24 inches anauder. Sach plants produce the fineat flower-spiken the following meason, and three only should be allowed to each plant. J. Douglas.

## ORCHIDSATBUREORD DORKING.

Sir Trevor Lawhenca, Barto, the President of the Royal Horticaitaral Society, is jastly known as one of the most liberal of the amateurn of gardening, who have throughout maintained a tine collection of Orchid, and he is as keen a collector of good and rare Orchid at the present day as he has ever been, although the varied collection which te has eucceeded in getting together rendera it increasingly more difficult to find good thinga already not anfficiently well represented there. As the number of specier, too, increase, the difficulty of keeping in bealth unique plante about which little or nothing can be gleaned to nerve an a gnide to their cuiture has to be met. In this particular, and in mot other mattore relating to Orchid culture, the remarkable auccen attained at Burford, and the aplendid condition in which the plant there now are, give ample proof of the interest taken in them by their owner, and the care and wiill of hia attentive Orchid-grower, Mr. W. H. White.

From time to time wo have given illnatrations of some of the marvellous plant in the Burford collection, and it greatly enhance the pleasure of a visit to look up the apecimens illatrated. Invariably we find them in better condition than ever, and on the present occasion the noble pecimen of Sophronitia grandiflora illustrated in Gard. Chron, April 20, 1895, and the other which we have depicted, were fonnd in splendid condition, and promining a still greater show of bloom in the coming eason. Especially in this the case with the great mase of Cattleya Lawrenceana, exhibited by Sir Trevor Lawrence recently before the Royal Horticultural Suciety, with fiftycight flowern, one of the opike bearing no fewer than thirteen blooms. In the coming neamon it will probably exceed that namber, in the aggregate at least, if not on the aingle inflorencence.
Commencing with the lean-to warm houses in
which the Vanda teres and V. Hookeriana thrive so well, and in which the tall pecimen of Vanda Miss Joaquim (Hookeriana $x$ teres), is thriving and approaching the flowering atage, we found the rich collection of varietie of Lælia anceps throwing up spikes profasely, and the singular Laisia volucris, Lelia Lawrenceana, and the carious greenishwhite Epidendrum Imschootianum in bloom. In the next division, on the front of which the scarlet Habenaria militaris, the allied H. rhodocheila, and the white and piak form of Habenaria carnea, thrive no well, and make much a fine ahow, in bloom were the pretty Burford hybrid, Cypripediam $\times$ pictaratum (Spicerianam $\times$ saperbiens), C. $\times$ Mor. ganise Bariordiense, still the best of its cluss, and one that it is difficult to conceive finer in ita way; C. $\times$ Earyale; various other Cypripediams, and a pretty variety of Cattleya Luddemanniana.
These houses, like the other warm houses at Barford, have all the available pace under the ataging planted with Cyrtodeiras, Fittonias, Pilea, and other pratty compact-growing foliage-plants. Such a method fills ap vacant apacer, is effective, and very favourable for the plants. In one corner of the house, just passing out of bloom, is a large specimen of Coelogyne Camingii.
The next house, a cool intermediate one, bay a fail collection of the large-flowared Maxillarias in excellent condition. M. Hubschii, M. fucata, and a few others being in bloom, as well as Oocidiam incurvum and $O$. i , album. Odontoglossam B:c50niense and O. B. albam, Miltonia Ctowesii and other Miltonias, and some pretty tafts of the orangescarlet Lalia monophylia, which here thrives so well that the planta bear from twenty to thirty or more flowers on each.

In the large intermediate-house, filled principally with a splendid collection of Lselis and Cattleyas, the bank of varieties of Vauda tricolor and V.auavis is in undiminished vigour and beauty. The oplants sorely trouble mots growert, and we wonder how many have completely failed with them during the long time those in the Burford collection have been growing in the most satisfactory manner. In this house is an immense masa of Oacidiun lanceanum, some 4 feet across, and in the mont perfect healch; on the front stage is a larga quantity of hybrid Cattlegas and Lælias, and of equally-prized rare importel kinde, which are being carefally tended until their flowering atage is rached. Among the plants in flower are a fine example of the aingular Coologyne fuliginosa and Cattleya $\times$ Blesensis.
In the large pan tove-house, amid the freshlooking foliage and brightly-coloured spathes of the plants of Aathariam Andreanum and its hybride, are many fine and rare Dendrobiams, among which were in flower D. Lowii, I). cruentum, \&c., and Vanda Hookeriana. Oa one ide is a collection of the handsome-leaved Bertolonias, and in a corner the giant specimen of Grammatophyllum specionnm, which regalarly sends forth its tall, stout pseado-bulba and graceful Palm-like foliage, but an yet has not produced flowern. Some day the reward of patience and akill will come, and the flowering of the plant add another triamph to the many which have been won at Burford.

The large Odontoglossum-house has ite occapants In very fine condition, s noteworthy fact when it is remembered that many of the apecimens have been on the place for a number of years. These plants at one time, although keeping perfectly healthy, did not make the progrese desired antil they were shifted into their prement quarters, and since that time they have increased in vigour and in aizz in a remarkable degree, and another house on tho same plan will probably be built for new.comers. A few O. Peycatorei, O. cristatellum, and a good lot of O. grande, the pretty yellow Oncidiom cristatum, Trichocentram albo-purpaream, and othera also were in flower.

In the next intermediate-houre, the large table in the centre is flled with the apecimens of Sobralias, which a little earlier in the year are one of the sighte of Barford, ten or a dozen different apecies and varietien, each givigg a profusion of bloom at one
and the same time. At present the specier chifly represented are S . macrantha, of which there an some grand plants and varieties; and S. xantholeta, Here in bloom, too, are some large apeciment of Cypripediam $\times$ Ashburtonig, C. $\times$ Crossianam, and other of the older varieties; and in a shagy conep a large specimen of Cypripediam Schlimii, whics seems to flower continually. On one side is a baok of the Burford variety of Cypripediam $\times L_{\text {seana }}$ saperbum; on another, a splendid lot of Miltooia vexillaria, with a few good M. $\times$ Benias, and about the house in flower were $C$, Charlesworthii, C. Spicerianum, Vanda cerale, a plant of a very large form of Stenia pallida, and another of the pretty fringed-lipped Chondrorhyacha Chestertonii ; two fine plants, one with four apike, each 1 s inches loug, of the rare and pretty Epidet. dram eceptram; several of the true Cypripetion purpuratum; Oacidiam aurosum, O. cheirophom, O. cornigerum, Pholidota obovata, sud ame other angular botanical species. The rare Heliamphom nutans is also thriving here. In the adjoining how are some good Miltonia Ropzli in bloom, Oncidinm Jonesianam, Lælio-Cattley a $\times$ elegana, Li $\times$ Amandh the pretty Aganisia ionoptera, Epidendram ottoin, E. Gideffizaam, \&c.

Tae large pan-roofed warm-house, in which the Phalæopais occupy the staging on one side, in atmyn interesting from the flcor to the roof, for undernewt the staging, and in front of the hotwater-pipes Eacharia grandifora is planted, and it grows in : marvellous manner and produces a great quantity of its large pure white flowers; while the roof is thickly set wich hanging-baskets of Cirrhopetalums, Balbophyllums, Catabetums, \&c., which are here in gremer variety than in any other collection, and they an constantly producing their quaint flowers, ranging from the immense hooded Bulbophyllum grandifloram (illustrated in the Gardeners' Chronicle from the unique specimen at Barford, April 6, p. 429), to the lithle Cirrbopetalom (Yamingii, with its prolaion of flowere arranged like tiny pink parasols. Th coppery-orange Cirrhopetalum Masterianum, and a few other carious botanical apecies are in flower; and among the Catanetums, a great mam of the pretty green and white C. Rastelianam, which in the atructure of its pretty flowers seems to atand alowe in the genus. At the end of the hown is a number of apecimens of marvellously pretty Anæctochili, and in bloom are Paslænopnis violacen, P. Esmeralda Regnieriana, a number of rare hybrid Cipripediams, and a good show of varieties of Dano drobiam Phalæaopais Schroderians. Oa one side the Burford hy brid Calanthenare making up immen balbs, and on the pots of some of them, seedling of a new race are coming up in great profuion. In the adjoining sanay lobby the hybrid, decidnous 1) androbiams are ripening the fine growths they have made, and some quite new crosees are expected to flower next year.

In the Aërides-house the epecimen of Oyvirsudn fenestralis (Lattice plant), always an objch of interest, is atill in fine condition; and in flower are Stauropsi philippinensis, a real gem, with slender stem, ciad with distichons leaven, from the bere of each of which proceed a pretty red-brown flowef, with a yellow margin, and with curiously-ridged lilec lip, the whole plant forming a pretty pray of fowest wich foliage. Oncidiam Kramerianum, Aëridea Laro reacim, Dindrobiam bracteonam albam, Polyotachan odorata, and other fine thinge are also in bloom; gnd in the Madavallia-house many Masderallias, Plearsothallis, \&a, chielly of botanics! interent, are still flowering-while the now seedling-house seems to contaia material for novelties for many geara yot
come. come.
Ia the general garden, so ably tended by Mr, W. Bain, the show in the greenhouses and stovell is wrilo worthy of the Orchid department; indeed, the liant effect, the splendid taberous Bugoniss, premin Soreptocarpus, and fragrant Lilies, make in miagled servatory whose roof is laden with the mimg of flowars of the white and tha crimson varie
Lapageria rowa, woald be diffisult to excelo
the beds of brilliant Cannat ; of gracefal and bright Montbretias; fragrant and richly-coloured Roses, Gladioli, Crinum Powelli (which is here one of the finest baráy balba), and other flowers being all that could be desired, while here and there peep forth novelties or well-known old plants never seen in auch beantifal form before. Two remarkable in atances of the latter are the pretty bushes of sky blas Tweedia ceroulea, which by catting back are here cauned to make neat and charming planta; and the parple Raodochiton volabile, which rans over a rantic arch.

## CHRYSANTHEMUM MAXIMUM AND ITS ALLIES.

Tre receipt of a letter and apecimen from Rev C. Wolley Dod induced as to examine the her bsrium apecimens, and those in cultivation at Kew and Caiswick
Chrysanthemum pallens, J. Gay (1833), ex Indice Kevensi, i., 527.-Bracts of the involucre with a deep white or pale brown margin; corolla of discflorete gibbora, or apurred at the bave.
C. maximons, liamond (1R00), ex Indice Kewensi i 525. - Bracts of the involucre with a brown margin; corolla of diac-iforets not gibboas or sparred at the bsae. The aasociation of tushy learea and a more or less cosreely hairy epiderm in anasual.
C. pallens is ueually the maller plant, 2 to 3 feet, the leaves lighter-coloared, less hairy, and leas leaby than thone of maximum. C. maximum is a rather more robast plant, with darker - coloured, larger leaves, and involucral bracta, and without any apar or protrusion at the bave of the corolla of the dincfloretp, ach ss characterines the disc floreta of C . pallen.
Ia addition, there are C. Lactstre, a coarne growing, tall perennial, 4 to 5 feet bigh, with thick, fleahy, quite glabrous, gloney leaves, and large white flower-hesds. The ray-flortts of this apecies have a rather deep, laciniate, membranous cap, armounting the ovary. No such pappus or cup exists in the florets of the difc. The involucral scales are orate-oblong acate, with a deep membranous border, extending from the tip to abous the middle of the acale. To thi belong cortain garden form called latifolium and grandiforam ; and here belongs in our opinion the larger of the two plants called maximam by Mr. Wolley $D, d$ in the commanication, and of whica he bas kindiy transmitted specimens. This it atill in bloom, whilst C, maximam and C. pallen are both over.
C. sraotinum is also a tall-growing perennial, 4 to 5 feet, not yet in bloom. Its upper leaves are senaile, lanceolate, coartely serrate from above the middle to the tip, dall green, slightly pilose, especially apon the lower sarface, and often with a pair of mall loben or teeth at the very base. The involucral icales in the young atate are covered with white hairs.
C. atalum has leaver auricled at the baee, and the invulacral leaves almoat black at the tip. This is perhapa only a form of C . leacnathemam.
"C. pallens.-Laat apring I received from Mr. Marahall, chairmnn of the floral committee of the Royal Horticaltaral Society, a plant named Chryanathemum pallens; he acked me whether I knew it as a ditinct apecies from C. maximum. When the plant flowered I found it to be what I have grown for many years as the type of C. maximum (Ramond), but on careful examination of the characters, with the help of a botanical expert, I find it to be C. pallens (Gay). In common with moat amateara I have generally considered that there were two forms of C. maximum (Ramond), one of slender habit, growing at mowt about 2 feet high; the other coaraer and with thicker leaves and larger flowers, renching, on rich soils, a height of 4 feet. Both of these are diatinct from the atill taller and larger C. latifoliam ayn. C. lacastre. The emalier of thene two plante will be found on examination to be C, pallens (Gay),
and the larger C. maximum (Ramond). The botanical distinctions between the two are not obvione, except the difference in size; bat the name "pallens" is derived from the colour of the bracte of the involucrum. If a flower ia turned aptide down, the general colour of the edges of the bract is nearly straw-coloured in C. pallent, whilat in C. maximum it it darl brown. The lower part of the stalk in C. pallens is hairy, whilat that of C. maximam is smooth. There are alto differences in the pappus and the achene only to be observed by minate eramination. The native range of C. pallens is more extensive that that of C . meximuma and it is less of a mountain plant, reaching from Portagal through moathern France and nortbern Italy, nearly to the Black Sea. It in known that C . maximum in varisble from seed, and where these two closely


allied pecies are grown near one another, it will probably be found that they amalgamate, and produce intermediate forme, but as botaniats have recognized them as distinct, it is better that they should have their right names given to them in gardens. C. Wolley Dod."

## a FICUS STRANGLING A MANGO TREE.

Ofr illuatration, taken from a photograph kindly farnished by Mr. G. M. Woodson, College of Science, Poonah, exhibita a Mango tree growing in a grove near Lanowlee, on the Weatern Ghante, India, being killed in the embraces of a Ficas. The process of dentraction is well and correctly detecribed is the following worde by Mr. James Rodway in the Gwiana Forest:-
"Woe betide the forest giant when he falle into the clatches of the Clusia or Fig. Its reeds being
provided with a pulp, which is very pleasant to the taste of a great number of birda, are carried from tree to tree, and deposited on the branches. Here it germinatee, the leafy atem rising apward, and the roots flowing, as it were, down the trank antil they reach the soil. At firat these sobial roota are moft and delicate, with apparently no more power for evil than so many small atreams of pitch, whica they resemble in their slowly-flowing motion downward. Here and there they branch, eopecielly it an obatruction is met with, when the stream either changes its course or divides to rikht and iefis. Meanwhite leaty branchea have been developed, which push themaelves through the canopy above, and get into the light, where their growth is enormoasly accelerated. As this thkes place sthe roota have generally reached the ground, and began to draw saatenmoce from below. to atrengthen the whole plant. Then comes a wonderial development. The hitherto toft aerrial roote begin to barden and spread wider and wider, throwing out side-brancnes which flow into and amalgamate with each other which thow into and amsigamate with each other until the whole tree-trank is bound in an meries of
irregular living hoops. The strangler is now ready for its deadly work. The forest gisnt, lise all exogens, mutt have room to increase in girth, and here he is bound by cords which aro stronger than iron bands. Like an athlete, he tries to expand and burat his fetters, and if they were rigid he nuight succeed.

The bark bulge between eyery interlacing-bulgen out, and even tries to overlap; bat the monster has taken every precaution againat this by making ita banda very numerous and wide.

As the tree becomes weaker its leaves begin to fall, and this gives more room for its foe. Soon the strangler expands itself into a great bueh almost as large as the mass of branches and folinge it has tffaced. . . . . It we look carefully around us we ree examples of entire obliteration-a Clasia, or Fig, atanding on ita reticulated hollow pillar, with only a heap of brown humus at its base to show what has become of the trank which once atood up in all ita majesty on that apot."

## LATE STRAWBERRIES

As we experience nuch varying seazons, this one very hot, the next wet and cold, the importance of growing both early and late varietien of Strawberriea on different aspecta is obvious. This year our late plants on north borders were an eapecially welcome addition to the aupply, ws the outside crop was over earlier than uzual. Lats seaton, owing to late spring frout during May, much of the bloom of the midseason varieties was injured by frost, and in the southern parta of the country the earliest plants had fruit halt grown which was deatroyed, whereas the bloom on north bordert wae less advanced, and remained uninjared.
August is a good month to plant for late suppliey, and I ventare to assert that the fruite will be much appreciated, as we never appear to bare too long a season or too abondant a crop of Scrainborrié Late year I find that our aupply latted aix weelo, thanks to our late kinds; thin year wo gathered much earlier and the period was a little over five weeks. Of late varieties there is a large choice, and the first place I would give to British Qaeen, a variety that does not do well everywhere, but is well worth growing if it thrives-it juat follows on the main crop varieties. Eleanor or Oxonian in also a largefraited late variety, not noted for flavour, but a free grower and truatworthy cropper. Aberdeen Favoarite is superior, though a little smaller; a fine type, of briak flavour, and very late when grown in the shade of a north wall. For some seasona Jabilee uned to be grown here in the ame aspect for its good qualities and lateness, but it has now made way for Latest of All, a mach superior variety, with the British Queen flavour, and coming beat in dry hot eeasons. It is a very fine fruit, and an immenso cropper, requiring frequent rewewale if grent aise in the fruit is required. I am unable to recommend Waterloo, as it does not crop freely at Syov, owing. I think, to the nature of the soil; and young plante, unlens planted very early, eeldom fruit freely. The "Pine" section of Strawberries conaista montly of late varieties, such as E ton Pine and F .bert Pine; but if mv choice was limited to two unly. I shoald select British Qieen and Lateat of All, planting them iu the mouth of Jaly for fraiting the next searon. In good land these two varietiea will zacceed admirably, giving fine large fruite afier the planta in open bedr have ceased to bear, $G$. Wythes.

## BOTANICAL SECTION OF THE <br> BRITISA ASSOCIATION.* <br> (Concluded trom p. 297.)

Oqganisation of Section.-I am afraid I bave detained you too long over these matters, on which I must admit I have apoken with some frankneas. Bat I take it that one of the objects of our section is to deliver our minde of any perilous staff that is fermenting in it. Bat now, having taken leave of the past, let as tarn to the fature.
We atart at least with a clean alate. We cannot bind our saccensora, it is true, at other meetings. Bat I cannot doabt that it will be in our power to materially shape our futare, notwithstanding. When we were only a department I think we all felt the advantage of these annual meetings, of the profitable ducuanion formal and informal, and of the privilege of meeting so many of our foreign brethren who have so generounly supported ue by their presence and aympathy.
I am anxious, then, to nuggent that we should conduct our proceedings on as broad line: as pomible. I do not think we should bo too ready to encourage papers which may well be communicated to societies, either local or central.

The field is large ; the labourers at they advance in life can hardly expect to keep pace with all that in going on in it. We mast look to individual members of our namber to help us by informing and stimulating addresses on anbjecte they have made peculiarly their own, or on important researches on which they have been eapecially engaged.

Nombnclature.
There in one aubject upon which, from my official position elcewhere, I denire to take the opportanity. of anying a few words. It is that of nomenclature It in not on ita technical side, $I$ am afraid, of anfficient general interent to jautify my devoting to it the space which ita importance would otherwise deserve. Bat I hope to be able to enliat your aupport for the broad common-senve principles on which our practics should rest.

A! I suppose, everyone knows we owe our present method of nomenclature in natural hiatory to Linnacus. He devised the binominal, or, as it is often absurdly called, the binomial system. That we must have a technical aytem of nomenclature I appose no one here will diapate. It is not, however, alway admitted by popalar writers who have not appreciated the difficulty of the matter, and who think all names should be in the vernacular. There is the obvious difficulty that the vast majority of planta do not poseess any names at all, and the attempta to manufacture them in a popular shape have met with but little auccem. Then, from lack of discriminating power on the part of those who use them, vernacular namen are often ambiguous; thas Balrash is applied equally to Typha and to Scirpas, planta extremely different. Vernacular namen, again, are only of local utility, while the Linnean syatem is intelligible throughout the world.

A technical name, then, for a plant or animal is a necenity, at withont it we cannot fix the object of our inveatigations into ite affinity, atructure, or propertien $\dagger$ Nomina si nescis perit et cognitio rerums.
In order to get clear ideat on the matter, let as look at the logical principlem on which auch names aro based. It is fortunate for ut that these are atated by Mill, who, beaides being an authority on logic, whe also an accomplished botaniat. Ho toll. us: " "A naturalist, for parposen connected with his partivalar science, sees reason to distribute the animal or vegetable creation into certain group rather than into any others, and he requires a name to bind, 2 it were, each of his group together." He further explains that auch names, whether of apecien, genera, or orderm, are what logician call connotative : they denote the members of each group, and connote the diatinctive charactert by which it is lefined. A apecies, then, connote the common charscters of the individuals belonging to it; a

[^28]genus, those of the pecies ; an order, those of the genera.

Bat these are the logical principlet, which are applicable to names generally. A name ach as $R$ inunculus repens does not diffor in any particular from a name auch as John Smith, except that one denotes a specien, the other an individual.

This being the case, and technical names being a necessity, they continually pass into general ase in connection with horticulture, commerce, medicine, and the arts. It seems obvious that, if acience is to keep in toach with haman affairs, atability in nomenclature is a thing not merely to aim at but to respect. Changes become necessary, but should never be inaiated on without grave and aolid reason. In some cases they are inevitable anles: the taxonomic side of botany is to remain at a atandatill. From time to time the revision of a large group has to be undertaken from a uniform and comparative point of view. It then often occurs that new genera are seen to have been too hastily founded on inanficient grounds, and must therefore be merged in others. This may involve the creation of a large number of new namen, the old ones becoming henceforth a burden to literature as synonyms. It is uacul in unch cases to retain the specific portion of the original name, if posible. If it is, however, already pre-occapied in the genus to which the transference is made, a new one must be devised. Many modern satematists have, however, set up the doctrine that a specific epithet once given is indelible, and whatever the taxonomic wandering of the organiam to which it was once anaigned, it must alway accompany it. This, however, would not have met with much eympathy from Linnæus, who attached no importance to the apecific epithet at all: Nomen specificum sine generico est quasi pistillum sine campana.* Linnæus alwaya had a solid reason for everything he did or asid, and it is worth while conaidering in this case what it was.

Before his time, the practice of asociating plants in genera had made aome progren in the hand of Tournefort and otherm, bat specific name were still cumbrous and practically nuasable. Genera were often distingaished by a single word; and it was the great reform accomplished by Linneas to adopt the binominal principle for pecies. But there in this difference. Generic names are anique, and must not be applied to more than one diatinct group. Specific name might have been constituted on the ame basis; the pecific name in that case would then have never been used to deaignate more than one plant, and would have been anfficient to indicate it. We ahould have lost, it is true, the useful informstion which we get from our prevent practice in learning the genus to which the specien belongs; bat, theoretically, a nomenclature could have been eatabliahed on the one-name principle. The thing, however, is imposaible now, even if it were deairable. A pecific epithet like vulgaris may belong to hundrede of different apecier belonging to an many different geners, and taken alone in manainglesa. A Lianean name, then, though it consiat of two parta, must be treated an whole. Nomen omne plantarum constabit nomine generico et specifico $\dagger$ A fragment can have no vitality of its own. Consequently, if superseded, it may be replaced by another which may be perfectly independent. $\ddagger$
It conatantly happens that the atme apecien is named and described by more than one writer, or different viewi are taken of apecific difforencen by varions Writers; the apecies of one are therefore "lumped" by another. In such casen, where there is a choice of names, it is cuntomary to eelect the earliest pablithed. I agree, however, with the late Sareno Watson \& that "there is nothing whatever

* Phil., 219.


## Phil., 212.

I As Alphonse de Candolle points out in a letter published in the Bull. de la Soc. Bo:。 de France (IXxix.), "the real merit of Linnexu has been to combine, for all plants, the generic name with the apecific epithet." It is important to remember that in a logical sense the "name" of a species consists, as Linneus himself insisted, in the combination, not in the specific epithet, which is a mere frogment of the name, and meaningless when taken by itserl.

6 Nature, Ilvii, 54
of an ethical character inherent in a name, throggl sny priority of pablication or position, which thould render it morally obligatory upon anyone to accept one rame rather than another." And in point of fact, Linnæus and the early jatematists attached little importance to priority. The rigid application of the principle involves the assumption that all persons who describe or attempt to describe plant are equally competent to the taik. Bat thin ir a far from being the case that it is sometimes all bat inpostible even to guess what coald poxibly han been meant.*

In 1872 Sir Joseph Hookes t wrote:-"The nathes of species described by author who cannot deter mine their affinities increases annually, and I regard the naturalist who pate a dencribed plant into if proper position in regard to its allies as renderng a greater service to acience than its describer min he either pate it into a wrong place, or thon if into any of those chaotic heaps, miscalled guma, with which ayatematic works till abound, This has alway seemed to me not merely tound man, but a scientific way of treating the matter, Whas we want in nomenclature is the maximum amoms of stability, and the minimum amount of change compatible with progress in perfecting oar taxonomie syatem. Nomenclaturs is a meang, not an ond There are perhaps 150,000 apecies of flowering plantain existence. What we want to do is to puah on the tuk of getting them named and deacribed in an intelligith manner, and their affinitie determined as corretly as poasible. We shall then have material for dealing with the larger problems which the vegetation of our globe will present when treated as a whole. To me the botanists who waste their time over prioits are like boya who, when ent on an errand, apend their time in playing by the roadside. By arch man even Linneas is not to be sllowed to decide his on names. To one of the mont eplendid ornamentr of our gardens he gave the name of Magnolia gracliflora: this is now to be known as Magnolia fertid The reformer himself is conatrained to admit, "The change is a most unfortanate one in every war? It is difficult to nee what is gained by making it except to render ayatematic botany ridiculoun. Tan genas Aspidium, known to every Forn caltiration, was founded by Swartz. It now contains tome 400 pecier, of which the vast majority were, of course, unknown to him at the time; yet the namet of all these are to be changed, because Adanoon founded a genus, Dryopteris, which seems to be the same thing as Aspidiam. What, it may be anked, in gained by the change? To cience it it certaill? nothing. On the other hand, we lumber our book with a mase of aynonym, and perplex evergone who takes an interest in Ferns. It appears that the name of the well-known Australian genas, Bankin really belongs to Pimelea ; the ppecies are therefore to be renamed, and Bantaia is to ba rechrintent Sirmuellera, after Sir Ferdinand von Mueller; ${ }^{\text {i }}$ proposal which, I need hardly aty, did not emanto from an Englishman.

I will not multiply inetancer. Bat the wort of it is, that those who have carefully studied the abljots know that, from various causew, which I caniof afford the time to discuss, when once it is attemptod to diaturb accepted nomenclatare, it in almont ins. posaible to reach finality. Many genera only exill by virtue of their re-definition in modern timet; the form in which they were originally promulgate they have hardly any intelligible meaning as all.
It can hardly be doubted that one canee of the want of attention which apatematic botany noll receives is the repalsive labour of the bibliographics worl with which it has been overlaid. What enormous balk nomenclature has already attain may bo judged from the Index Keconsi, which wil

* Darwin, who always seems to me, almost instinctively, take the right view in matters relating to natural history, of (Life, rol. i., p. 384) dead against the new (Life, rol. 1., p. 381) dead against the name of the fry naturalists appending for perpetuity the pam oriority ense: describer to species." Ho is equally against the prioulbout -"I cannot yet brin

1 Flora of British India, i.. will.
Garden and Forest, ii., 615.
prepared at Kew, and which we owe to the munificence of Mr. Darwin. In his own atudies he constantly came on the track of name which he was anable to ran down to their source. This the Index enables to be done. It is based, in fact, on a manacript index which we compiled for our own use at Kew. But it is a mistake to suppone that it is anything raore than the name signifiep, or that it expresses any opinion as to the validity of the names themelves. That thone who nas the book mant judge of for themelve:. We have indexed existing names, but we have not added to the burden by making any new one for apecies already dencribed.

What synonjmy han now come to may be jadged by an example supplied me by my friend Mr. C. B. Clarke. For a single species of Fimbristylis he find 135 published names ander aix genera. If we go on in this way, we hall have to invent a new Linnæus, wipe out the past, and begin all over again.

Although I have brought the matter before the Section, it is not one in which this, or indeed any collective anembly of botaniats, can do very much. While I hope I shall carry jour assent with the generad principlen I have laid down, it mat be admitted that the technical detail can only be appreciated by experienced opecialints. All that can be hoped is a general agreement amonget the staff of the principal inatitutions in different countries where aytematic botany is worked at; the free-lances mut be left to do as they like.

## Publications.

I have dwelt at auch length on certain aspects of my abject that perhaps, without great injustice, you may retort on me the complaint of one-sidedness. But when I survey the larger field of botany in this country, the prompect seems to me 0 vast that I should deapair even if I had my whole address at my disposel of doing it justice. I think that it extent is measured by the way in which the pablications belonging to our aubject are maintained. First of all, we have access to the Royal Society, a privilege of which I hope we shall always continue to take advantage for communication which either treat f fundamental subjecte, or at leat are of general intereat to biologists. Next to this we have our ancient Linnean Society, with a branch of it publication handsomely and efficiently devoted to syatematic work. Then we have the Annals of Botamy, which has now, I think, established ite position, and which bringe together the chief morphological and phyaiological work accompliabed in the country. Lattly, we have the Journal of Botany, a less ambitious but useful periodical, which is mainly devoted to the laboary of Britich botanista. I remember there was a time when I thought that thic, at any rate, was an exhausted field. But it is not so; knowledge in ite most limited aspect is inexhaustible if the labourer have the necessary insight. The discoveries of Mr. Arthur Bennett amongat the potamogetons of the Eastern Counties is a atriking and brilliant instance.

Besides the publication of the Annals, we owe to the Oxford Press a splendid series of the best foreign text-book issued in our own language. If the thought has sometimes occurred to one's mind that we were borrowers too freely from our indefatigable neighbours, $I$, at least, remember that the late Profesmor Eichler paid un the compliment of anying that he preferred to read one of these monumental books in the English tranalation rather than in the original. I believe it in no secret that botany owen the aid that Oxford has rendered it in these and other matter in great meanure to my old friend, the Master of Pembroke College, than whom, I believe, science has no more devoted supporter.

## Palmobotany,

I have asid mach of recent botany; I muat not paas over that of past ages. Two notable workers in this field have pansed away since our last meeting. Saporta wae with us at Manchester, and we shall not readily forget his personal charm. If some of his work has about it a too imaginative character, the patience and eatire mincerity with which he traced
the origin of the existing form of vegetation in Southern Earope to their ancestor in the not diatant geological past will always deserve attentive atudy. But in the venerable, yet alwaya youthful, Williamcon we lose a figure whose memory we hall long preserve. With rare instinct he accumulated a wealth of material illustrative of the regetation of the Carboniferons epoch, which, I uppose, ie anique in the world. And this was prepared for examinstion with incomparable patience either by his own hands or under his own eyes. He illustrated it with absolute fidelity. And if he did not in describing it always use language with which we could agree, nothing could ruffle either his impertarbable good nature or the noble simplicity of his character. Trath to tell, we were often in friendly warfare with him. Bat I rejoice to think that before his peaceful end came he had patiently reconaidered and abandoned all that we regarded as his heresies, but which were, in trath, only the old manner of looking at things. And I think that if anything could have contributed to make hie departure happy, it was the conviction that the completion of hie work and his cientific reputation would remain perfectly secure in the hande of Dr. Scott.

## Vegetable Physiology.

Tarning again to the present, the difficulty is to limit the choice of topice on which I would willingly dwell. In an addrens which I delivered at the Bath meeting in 1888, I ventured to point out the important part which the action of enzymes would be found to play in plant metabolism. My expectations have been more than realised by the admirable work of Professor Green on the one hand, and of Mr. Horace Brown on the other. The wildeat imagination could not have foreseen the developmente which, in the hands of animal phyaiologiste, would apring from the study of the fermentative change produced by yeast and bacteria. These, it seems to me, bid fair to revolutionise our whole conceptions of disesse. The reciprocal action of fermenta, developed in mo edmirable a manner by Marahall Ward in the case of the Ginger-beer platat, is dentined, I am convinced, to an expanaion acarcely lesa important.
But, perhape, the mont noteworthy featare in recent work is the disposition to reopen in every direction fandamental quentions. And here, I think, we may take a useful lemon from the practice of the older Sections, and adopt the plan of entrasting the investigation of apecial problems to mall committeet, or to individuals who are willing to undertake the labour of reporting apon apecial questions which they have made pecaliarly their 0 Fn . There reports would be printed in extenso, and are capable of rendering invaluable service by making accesible acquired knowledge which conld not be got at in any other way.

We owe to Mr. Blackman a masterly demonatration of the fact, long believed, but never, perhapn, properly proved, that the auface of plants is ordinarily impermeable to gases. Mr. Dixon hat brought forward some new views about water-movement in plants, which I confess I found less instruc. tive than many of my brother botanists. They are expressed in language of extreme technicality; but, as far al I underatand them, they amount to this. The water moving in the plant is contained in capillary channele; si it evaporates at the surface of the leaves a tensile strain is net up, se long at the column are not broken, to rentore the original level. I can underatand that in thin way the "transpiration current" may ba maintained. But what I want to know is, how this explains the phenomena in the Sugar Maple, a ningle tree of which will jield, I believe, 20 to 30 gallons of flaid before a aingle leaf is expanded.

We owe to Mesars. Darwin and Acton the supply of a Manual of Practical Veqetable Phyviolagy, the want of which has long been keenly felt. Like the father of one of the authors, "I love to exalt plants" ( i .98 ). I have long been antiafied that the fects of vegetable phyaiology are capable of being widely taught, and are not less aignicat and infinitely
more convenient than most of thow which can be eavily demonatrated on the animal side. How little any accarate knowledge of the subject has extended wae contpicuoasly demonstrated in a recent discusaion at the Royal Society, when two of our foremont chemiat roundly denied the exiatence of a function of respiration in plante, becanse it was unknown to Liebig!

## Assimilation.

The greatent and most fondamental problem of all is that of assimilation. The very existence of life upon the earth ultimately depend upon it. The veil is slowly, bat I think aurely, being lifted from its secrets. We now know that starch, if its firat viaible product, is not ite firat reault. We are pretty well agreed that this is what I have called a "protocarbohydrate." How is the syntheain of this effected? Mr. Acton, whose untimely end wo cannot but deeply deplore, made nome remarkable researches, which were commanicated to the Royal Society in 1889, on the extent to which plants could take advantage of organic compound made, to to apeak, ready to their hand. Loew, in a remarkable paper, which will perhape attract less attention than it dewerves from being pablished in Japan,* han from the atudy of the nutrition of bacteria, arrived at some general conclusions in the same direction. Bokorny appeara recently to have similarly experimented on Algm. Neither writer, however, aeems to have been acquainted with Acton's work. The general conclanion which I draw from Loew is to atrengthen the belief thas form-aldehyde is actually one of the firat steps of orgnaic syntheais, sa long ago aggented by Adolph Baejer. Planta, then, will avail themselves of ready-made organic compound which will yield them this body. That a sugar can be constructed from it has long been known, and Bokorny has shown that this can be atilised by plantm in the production of starch.
The precise mode of the formation of form-aldebyde in the process of assimilation is a matter of dispute. But it is quite clear that either the carbon dioxide or the water, which are the materiale from which it is formed, mutt auffer disuociation. And this require asuply of energy to accomplish it. Warington has drawn attention to the atriking fact that in the cave of the nitrifying bacterium, assimilation may go on without the intervention of chlorophyll, the energy being uupplied by the oxidation of ammonia. This bring us down to the fact, which has long been auspected, that protoplasm is at the bottom of the whole basiness, and that chlorophyll only plays aome aubsidiary and indirect part, perhapi, as Adolph Bieyer long ago anggented, of temporarily fixing carbon oxide like hemoglobin, and so facilitating the diveociation.

Chlorophyll itself is still the subject of the careful study by Dr. Schanck, originally commenced by him some years ago at Kew. This will, I hope, give ua eventusily an accurate insight into the chemical constitution of this important substance.

The step in plant metabolism which follow the syntheais of the proto-carbohydrate are still obscure. Brown and Morris have arrived st the urexpected conclusion that "Cane-sugar is the first sugar to be synthenised by the asnimilatory procenses." I made nome remark upon this at the time, + which I may be permitted to reproduce hert.
"The point of view arrived at by botanieta was briefly stated by Sache in the cave of the Sugar-Beet, starch in the leaf, glacoss in the petiole, canc-augar in the root. The facte in the Sagar-cane wem to be etrictly comparable $\ddagger$ Cano-augar tho botaniat looks on, therefore, as a 'reserve material.' We may eall 'glacose' the augar "carrency' of the plant, caneaugar its 'banking reserve.'
"The immediate remult of the disetstic transformation of starch is not glacose, bat maltove. But Mr. Horace Brown hat ahown in his remartable experiments on feeding Barley embryon that, while they can readily convert maltose into cane-sugar, they altogether fail to do this with glacose. We may

Bull. College of Agric. Inp. Univ. Tokio, vol. it.
Jourm. Chem. Soc., 1893, 673.
Kew Bulletin, 1891, 35-41.
conclude, therefore, that glucose is, from the point of view of vegetable nutrition, a somewhat inert body. On the other hand, evidence is apparently wanting that maltore plays the part in vegetable metaboliom that might be expeeted of it. Its converrion into glucoose may be perhaps accounted for by the con--tant preesence in plant turanes of vegetable acids. Bat, so lar, the change woald seem to be positively
 rense, will prove to have a not very exact chemical connotation.

That the connection between cane-sugar and starch is intimate is a conclusion to which both the chemical and the botaniczl evidence seems to point. And on botanical gronnde this wonld seem to be equally trae of its connection with cellalone.
"It mast be confened that the conclusion that ' cane-sugar' 'is the firat sugar to be aynthetised by the asimilatory procenes seeme hard to reconcile with its probable high chemical complexity, and with the fact that, botanically, it seeme to atand at the end and not at the beginning of the series of metabolic change."

## Protoplasmic Chemistar.

The aynthesis of proteides is the problem which is second only in importance to that of carbohydrstes. Loew's views of this deserve attentive stady. Asparagin, as has long been anapected, plays an important part. It has, he saye, two soarces in the plant. "It may either be formed directly from glacoss, ammonia (or nitrstes) and sulphates, or it may be a transitory product between protein-decomposition and reconotruction from the fragmente."*
In the remarks I made to the Chemical Society I ventured to express my conviction that the chemical proceseen which took place under the influence of protoplaem were probably of a different kind from thoote with which the chemint is ordinarily occupied. The plant produces a profation of sabetancer, apparentily with great facility, which the chemist can only baild up in the most circaitous way. As Victor Meyer $\dagger$ has remarked: "In order to isolate an organic sabatance, we are generally confined to the parely accidental propertien of cryatallieation and volatilisation." In other worda, the chemut only deals with bodies of great molecalar stability; while it cannot be doubted that those which play a part in the processes of life are the very opposite in every reapect. I am convinced that if the chemist is to help in the field of protoplamic activity, he will have to tranacend his present limitations, and be prepared to admit that a there may be more than oṇe algebra, there may be more than one chemiatry. I'am glad to see that a momewhat similar idea has been sugqeated by other fields of inquiry. Profestor Meldols $\ddagger$ thinke that the invertigation of photochemical proceneen "may lead to the recognition of a, new order of chemieal sttraction, or of the old chemical attraction in a different degree." I am delighted to see that the ideas which were floating, I confess, in a very nebolous form in my brain are beitag elothed with greator precision by Loew.

In the paper which I have already quoted, he naye of proteida of:-"They are exceedingly labile compounde that can be emaly converted into relatively stable ones. A great lability is the indispensable ard aecesuary foundation for the prodaction of the various actions of the living protoplasm, for the mode of motions that move the life-machinery. There is a source of motion in the labil position of atoms in molecule, a wurce that has hitherto not been taken into consideration either by cheminte or by pryaicists."
-Bat I matt any no more. The probleme to which I might invite attention on an occasion like this are endless. I have not even attempted to do jutice to the work that has been accomplished amongat ourwives, full of interent and noveligy an it is. Bat I wess afford on angury, that if capacity and earnentnes afford on angury of succens, the prospect of the future of our Section posmen every element of
procone. procine.

+ Pharm. Journ. 1890, 773.
F Natini, whe
| Loe ett., IB,


## KEW NOTES

Tacca palmata. -This is a new addition to the eultivated speciea of Tacca, reed of it haping been recaived at Kew last year from the Java Botanic Garden, from which a batch of planta were raised, and most of them arenowflowering in the tropical houses. The general characters of the plant are similar to those of the well-known T. artocarpifolia from the Mascarene Islands, but amaller, the slender leaf-atalks being 1 foot long, apporting a palmatifid blade 9 inches across; the flower-acape is erect, from 18 inches to 2 feet in height, and it bears an umbel of about twenty dall parple flowers apringing from a quartette of leaf-like, green bracts. The flower, which are $\frac{1}{2}$ inch in diameter, have three inner and three outer recarved segments. The plant is worth a place among interesting easily-grown tove plant. Probably it will grow to a larger ize. T. pinnatifida, from the roote of which arrowroot is prepared in Fiji, bas also lately flowered at Kew. A fourth species grown here is T. cristata, generally known as Ataccia.

## Crinum purpubascens

Sir John Kirk. K C.B, recently brought to Kew weedlinge of a Crinum which he found growing in deep water at Brass near the mouth of the river Niger, and which, wo far as he could see, wan a true aquatic, the leaves an well as the stem being qnite submerged, the head of Anwers only appesring above the surface of the water. In the diatanca the flowers had the appearance of a Nymphæa. On pulling at one of the flowerheads he drew up with it a long Leak-like stem with narrow strap-shaped lesves more like some rea-weed in character than any Crinum. Sir Tnhn, on seeing a plant of C. purpurascens in the Kew collection, which is a native of that region, thought it might probably be the ame as what he saw at Brase. The inference is that C. purpurancens is of aquatic babitw, and jadging by Sir John'a dencription, it is a much moreattractive plant when seen growinc in deep water than when growing in a pot in the ordinary way. It flowers annually in a atove at Kew.

## Agave Kibwensis.

For many yeare there has been a gigantic Agave in the acculent-house at Kew under this name. Its early history appears to be unknown, but thirty years ago it was included by Jacobi in his Monograph, where it was first described under its present name. At that time it was a large plant. oo that probably ite age now in fifty to sixty years. It is now flowering for the first time, the pole-like spike reaching to the roof of the house, and bearing a dense head of large bright yellow finwers. A figure of it has been prepared for the Botanical Magazine, where, no doubt, Mr. Baker will tell all that there it to be told with regard to it . Meanwhile it is worth the while of anyone interested in Agaves to see this plant, which is exceedingly handsome in flower, bat which doen not at present look like perpetasting itself, the leaven having all perished, and the atem failed to develop vuckert. Posibly, however, bulbila will be produced on the inflorencence.

## Cbrbus gigantrus.

One of the large specimens of this giant Cactus recently obtained from Arizona, and represented in the photograph of a group of Cacti published in these page a few weeks ago, in now flowering freely. This is the mecond time this apecies has flowered at Kow in the last five yeara, the firat being in 1891, when a figure was published in the Botanical Magazine. The flowers are 6 inche long, trumpet-shaped, with numerous ahort white petale aurrounding a large cushion-like clater of yellow atamen, in the centre of which is the erect many-rayed utigme. Compared with the colossal stem the flowern are small and disappointing. Hud the floware been on the sma scale as thon of C. Eyripsii (Echinopais) they would heve been about the nize of an ovdinary wash-tab. W. W.

## Tha Weak's Work.

## RRUITS UNDRR GLASB.

By Richard Parker, Gardener, Goodwood, Chichester.
MELONS. - Late crops of Melons often prove useful daring shooting parties in October, but to obtain frait of good flavour at such time, lath batches of plants should be grown in heated pite op honops where a night temperature ranging from $65^{\circ}$ to $70^{\circ}$ can be maintained. If this convenience is a command, and provided the plants are atrong and healthy, it in not too late even now to set a fen fruits. The above-mentioned night-temperature, together with a brisk, growing heat during the day ought to produce ripe fruit towards the end of next month The continued bright weather has proved wom beneficial to the present crop, as ventilation $m$ admitted freely to the fruit daring the latter tugn of ripening, which is very necessary to good flamen, Where the fruit is in different atages of awelling fair amount of moiature can afely be uned while there is sun-heat, but at the first approach of dull, wet weather, great care must be taken to onsure m even temperature, and there must be less atmonpherie moistare. Slight nurface-drensings of fresh loam may be given to sustain the plants in a healthy condition antil the fruits are cut.

TOMATO8.-If not already prepared, a home shoald be got ready for plants that are at preunt standing in pote out-of-doors, so that they may bo removed under cover before damage is done by heavy rains or frosts. A house that has been aved during the summer for Melon-growing may be selected with advantage, as the pots, if small, and full of roots, can be atood on the noil used for the former crop, and allowed to root into the same, Planta occupying large pote will require to be surfasedressed and atood apon bricka, that the drainage may be thorough. Train the fruiting-stems as near the roof-glass as posaible, and continue to shorten back lateral growths, also the strongent foliage to half its length, so that light and air may eavily reach the clasters of flowern. The house should be rentilated freely during bright weather, and a alight circulation in the hot-water pipes should be maintained if the weather become damp. Atmonpheric moistare must be avoided, or disease will follow. Wation rather spariogly. We are testing several varietien for winter work, and up to the present Frogmore Selected has set the best crop. Clusters of fraith eight and ten on each, are ewolling very evenly.

## THE FLOW ER GABDEN.

## By Batuey Wadds. Gardenar, Birdsall Gandens. Fark.

DAHLIAB.-Show and other varieties of Dahlias should be given attention by cutting off all dead fowers as they appear, and by securing the planta againd rough weather. Dahlias are most useful autumb flowering plante, and every indacement ahoold be given them to continue in flower an long ai posaible. Before the plants have pansed out of bloom they should be looked carefully over, suld correct names attached to each of them; or wher this is impossible, diacard the plant, an there nothing more confusing than wrongly-named plath

ALPINE AURICULAB in beds or borders mult bo kept clesn from weeds, and the plants ought now be arowing atrong and healthy. Where the plath are grown in pote, young seedlings snd offres moved are growing il amall pote or boxes should be morne into 5 or 6 -inch pots. They require perfect draimgil and rich sandy loam, with a good quantity of or pite broken brick in it. Place them in frames or pary from which the lights can be taken off duriag ang weather. In winter they must be given that is dry and airy, but free from frosts.

BULBOUS PLANT8.-Seed of these that have been saved during the season shonld now be sown it boxes, and placed in pite from which eevere front en be excluded. Balbs of Narcieans, Lilium candladioAnemones, Tulips, Hyacinthe, Crocus, Iris, Gladive lus Colvillei, \&c., may be planted as moir aman bed or borders are cleared of their bumders occupsit. Those put into herbaceous to trelve should be planted in clumpe of from six to twe that bulbe, and kept as near the front an poom. they mas be readily observed when in bloom.

PRIMROAES AND POLYANTHU8ES that requill Whanting oats should be removed an toon as philithed Where they are growing thickly in oldeeft beds, every other plant should be taken ont.

WALLFLOWER8 may also be planted in their winter quarter as soon as posible．Window－boze sanding in beltertd positions bould be filled with them at once；and tome plant should be putinto pots，in order to fill the vasea in mpring．Thesemay bo kept in a cool pit or house．

CsRNATIONS AND PINK8－Layer and cottigge which are well rooted must be planted out without delay．Give the groand a good manuring，and a li che frest lime at the time of plantiog．Late layers anuald be left on the plants for some time yet，as they do not root mo quickly．

HERBACEOU8 BORDER8－A covsiderable amonnt of cleaning－up will be required at this aemon．The bun dersarevery gay just now with the flowers of Tritoma Uraria，Michaelmas Dainiev，various sorte of Helian－ thus，Anemone japonica，herbaceous Poloxes， Hyacinthus candicans，and Balbocodiums．Annual nown or planted in these borders ahould be kept within bounds．Sach plants as Sweet Peav，Mari－ golds，Tropæslums，summer Chryesnthemume， Pelargoniums，aud annual Scabious should be grown on borders or beds to themselves，or on shrabbery borders．Dahlias，annaal Sanflowert，Mignonette， clump of Tea－week Stocks，and auch plants that will come off quickly may be grown in herbaceous bordern，but they should not be allowed to interfere
 Delphiniume，and other hardy planta．

## THE ORCHID HOUSRA．

By W．H．Weutr，Orchid Grower，Burford，Dorking．
VENTILATION AND SHADE，－The principal work to be done in Orchid－bounes now is the repotting of the cool growing opecies，but while such work is in progreep，there are otber important mattere requiriog attention．Each day has a shorter period of light than its predecemor，and it is necemary to take advantage of all the sanlight in order to sssist the plants to thoroaghly ripen their growth．Gradually expose the collection as a whole to extra an ight，and on every favourable opportunity admit a free circulation of air． In the hottent division，where Dendrobiums atill in full growth．Cyrtopodinma，Renantheras，Gramma－ topbylleme，Vanda Hookeriana，Cattleya upprba， C．Schilleriana，Catasetums，\＆e．，can be accommo－ dated to \＆position by themselves，the plants will now require only the thinnest of shading under any circamstances；but ach plante as Palanopsis，An－ græcum citratum，A．Elliaii，A．Kotachyi，A．San－ derianum，A．pellucidam，Phaias taberculosas， Adxatochilas，Ealophiella Elisabethæ，Cypripediums， the warm－growing Cuiogyne asperata，C．Lowii，and C．Camingi，are liable to permanent injary if exposed to direct sualight．The amount of shading in the case of these，however，may be lessened by not lowering the blind quite so early in the morning， and by lifting them nooner each afternoon．It is im． portant that discrimination should bo used in this matter，and when the blinds are down during the middle houre of the day，it is necesnary to gaard againat over－ventilation， 10 at to minj－ mise the flactation in the temperature through cold winds．Many of the Aurides and Saccola－ biame are till growing freely，and will only require to be moderately ebsded．The deciduou Calanthes， Which sre now commencing to show their flower－ spikes，will scarcely require to be shaded at all；by thue exposing them the bulbs becomestrong and well－ ripened，and the colour of the Aower will be clear and rich．There are fow Orchids that enjov an airy atmonphere at this season more than the Cattleyas， eapacially when there is plenty of man－heat．There is no need to be continually palling the blinds up and domn at every burst of sunshine，an Cattleyas will stand more direct sunlight at this aean than any other，and they will ouly require shade at all for an hour or so during the hottest part of the day． Such species as Jselia ancept，L．sutamnalis，L． albida，L．Gouldiana，L．Marriotisna，\＆ce；Vanda teres，V．Kimballiana，V．Amesians，Schomburg－ hias，Barkerian．Ealophias．Epidendram atro－ purpaream，E．Randii，E．Thizophoram，and Odon－ toglomam citrosmum，also delight in plenty of pashine during theaatamn and snabundance offresh air whenever practicable．Miltonia vexillaria，Colo－ gyne：，Vandas of the anaviend tricolor section，the cooler－growing Aërides，as A．craseifoliam，A．mscu lonum，A．m．Schroderse．Saccolabiam culeste，and the cooler－growing Cypripediams，which，when an in－ termediats－house is not at command，are u＊ually cal－ tivated with the Cattleyes，all require au airy position and moderate shading．The Odontoglosenms，Masde－

Tallias，and other pecien in the cool－house should be protpcted from strong munshine at all timen Those Dandrobioms that have completed their growth and bave for the past fow week been gradually dried and bardened off，may be fully exposed to the aun．Very little water is needed now to keep the bulb plamp．Afford plenty of air by opening the ventilators at both top and bottom，bat avoid cold dranghts．

## THIB HARDY FRUIT GARDEN

By W．Pople，Gardener，Aighclera Castle，Newbury．
PEACHES AND NECTARINES continue to require frequent atcention．＇The growthe should be secured， and tha laterals on vigorous hoot stopped to one leaf．Late kinds need as much air and aunlight an poseible，in order to obtain fraite of good colour and favour．The fruits abould not be shaded by leaves，which may be fastened back；or if this cannot be done，hortened，or taken away entirely． Long appy growtha may be shortened，but this must be done with care，or the diverted ap may undaly pacite dormant buds that hould fruit next season． Treps that have been cleared of fruit may now have old bearing wood that can be apared taken out，and if the shont are thenstill crowded，theymay bethinned freely．Each ahoot requires a apace of 9 to 12 inches in order to ensure the perfect ripening of the wood， and which is the beat preventive of injary by hard fronts． The rooks often require water at this season，and if upon exsmination the borders are found to be dry， they ahould be given a good alking at once，firt breaking the surface if trodden hard aear the wall． Where liftiog bas to be done it hould be attended to in rood time；and before the fall of the leaf．Many good growers transplent their tres periodically，and the roots by frequent re－ moval become a mas of fibres，so that the aliutht check experienced is beneficial in hatening wood ripening，and preventing rampant growth．If any trace of red－ppider be detected，give the trees a thorough washing with claar water three or four days in accession，applying it with force from the garden－engine，and taking care that every portion is well wetted．Any trees that are badly infented chould be treated with some anfo kind of insecticide， afterwarde syringing them with clear water till clean．

8TOPPING PEARB，PLUMB，ETC，ON WALLB． Continue to stop secondary growths on Pear，Plum， Cherry，and Apricot trees on walls，pinching all such to one leaf 10 as to keep the apura close to the wall and to allow of an and sir having free accesa to every part．The shoots must be secured to the wall as they advance in growth，or it may be difficalt on bring them into a proper $^{\text {a }}$ ponition later on．Orergrown apur－prowth mey also now be thinned，catting out one here and there，where they can be spared．If a fow of these are taken away yearly，a neglected tree will in a fow year be farnished with short spars close to the wall and the fruit will be greatly improved in ize and quality．In the case of old exbansted treen，this hould be applemented by clearing away the top soil and applying a good dresing of rich compost to the rootit．

## THE KITOHEN GARDEN

By Johi Lamberr，Gardener，Powis Caste，Weishpool．
8WEET BABIL has made abuadant growth in the open this summer，and thould now be dried for une during winter．Where a green sapply in winter is expected，preparations for growing it in heated pita or in boxes，must be made at once．Sow the aced now， and as soon as the seedlinge can be handled，carefully prick them ont，and an they are very teader they must not be put into a cool dragghty hoaee．A Cacumber－house or Pine－atove will suit them well， but keep them as near to the roof－glass as ponaible．

GENERAL WORK．－Since the raide have come the growth of weede has caused considerable trruble in the kitchen garien，and it hat been difficult to destroy them by hoeing．Hand－weeding is impers－ tive in the cae of nome crope where the hoe cennot be used，bat during dry dayslet all the garden be thoroughly cleaned，afterwards hoed，and if dull weather ensue repps，the operation coon afterwarde．Tarnipesown as advised will now require thinoing．Which will need to ba done twice，or they will atill be left too thickly．Some of the late sowing on poor soil may be left a triffe clower than the other for producing oproatinext spring．Chirk Cantle Blackitone and

Orange Jelly are two good ones for this perpone，and they will atand hard winters well．Let all Tarnipe which are fully matured be pulled，trimmed，and put away in the root－house，an Turnip do not improve by being left in the ground after they are mature． Endive will now require blanching．The blanching may be done by tying the plant when dry－or hetter atill，by placing inverted flower－pote over them If flower pote are used，few only need be done at a time，for when the hole are topped，the blanching procen is a rapid one．Anparagus may now re－ ceive the lat dressing thi season of salt or fioh manure．See that the growthe are not badly beaten down，and any fresh growths with berries attached should be removed．Peas and Beans now exheusted should be removed，and the ground cleaned of all weeds；but if the Peas were sown thinly，and are not troubled badly with mildew， they will make side－growthe if left，and atill produce a few good diahes．Scarlet Ranners will ha bene－ fited by a good making of manure－watar．Broccoli will require to be earthed up，just afficient to keep them steady in case of rough winds．Cabbage and Cule－ wort may be treated the same when large enough． Large beds of old tools that farnished heart for pring catting，which were cleaned of old dead and decaying leaver，and were cut with the inteation of obtaining young sprouts through the winter，will now be making nice growths，and bould be encouraged， for many of them will atand through an ordinary winter．All econd－early Potatos will be bent lifted at once，and if eeed be required，it should be $s \not l e c t e d$. Beds of Early Horn Carrote and also Turnip－rooted Beet may be cleared from the qround．Give atten－ tion to the pricking out Canliflowers and Cabbages for winter work，and dust them occasionally with soot or lime．

## PLANTR UNDER GLAS8

By W H． $\mathbf{s m l t h}^{\text {M }}$ Gardener，West Dean Park．Chichester．
CYClAMENS，if grown in cold frames，munt now be removed to the greenhouse；or if they can be placed in a mall huse or hated＇rame，where the temperature can be kept about $50^{\circ}$ at night they will do mach better，as in the greenhouse they are apt to become drawn．Keep the plante clone to the glans，and lightly thade them during very brigbt weather．Weak manure－water may be given twice a week，and thir may be varied occasionally by applications of weak noot－water．Ae soon as the planta are taken in，they should be fumigated with Richards＇Compound if they are affected with any fly or thrip．Syringe them lightly on bright days until the flowers commence to open，after which the operation should be diacontinued．

WINTER－FLOWERING PELARGONIUMS should now be cleaned of all yellow and decaying leaven，and afterwards placed in their winter quarters．These plants do mach better，and the flowers last consider ably longer，if a small lightairy house can bs devoted to them，and damping will be len likely to occur than when they are growa among otber plante． Before the plante are staged they hould be given a top－dresning with a good fertiliser．If they are not required to flower until winter，the bud may be picked off for a while longer，but on no account ahnald the shoote be stopped，or tbey will not flower natil aprang．

CARNATION SOUVENIR DE LA MALMAIBON．－ Those layers firt potted will now be ready for moving into their flowering－pote，which should not be less then 24 －ize．For a potting compost use good turfy loam， peat，leaf－soil，wood－shes，and plenty of coarse and Pot the plante firmly，and take this opportanity to look the plante over very closely for disesee and Av． If the former is prement it should be eut clean ous with a sharp knife，and burnt．When they are potted the plants may be put into cold frames，whanold Water for a few day aterward，when a thiorough sosting may best worthy of cultivation are Sir Charles Frem－ mantle，Princen May，Mrn．Everard Hambro，Sir Erelyn Wood，and Tae Caurchwarden．

EABT LOTHIAN BTOCKB hhould now be potted into 48 aized pots，which will be found the mont auitable size in which to flower the plante．＇A compont of good loam，leaf－noil，and cow－manure will ait them well．Pot very iirroly，and plange them out－of－doors in coal auhes．Do not water tor a day or two，but afterward give them a good oasing．

## EDITORIAL NOTICE8.

Advertisements should be sent to the PUBLISEER
Illustrations.-The Editor will thankfully recoive and seleot photographs or drawings, suitable for reproduction in these pages, of gardens, or of romarkable plants, Nowers, trees, de.; but he cannot be responsible for loss or injury.

APPOINTMENTS FOR THE ENSUING WEEK.

## SHOW.

THURSDAY, SEPT. $26\left\{\begin{array}{c}\text { Royal Horticultural Society: Great } \\ \text { Show of British-grown Fruit at }\end{array}\right.$ the Crystal Palace.

## BALE8.

MONDAY, 末EPT. $23\left\{\begin{array}{c}\text { Dutch Bulbs, at Protherce \& Morris' } \\ \text { Rooms. }\end{array}\right.$ Rooms. Dutch Bulby, at Protheroe \& Morris ${ }^{\circ}$ Roome.
Highly important Sale of the celebrated Beech Lawn Collection of Fstablished Orchids, by order of W. R. Lee, Esq., by Protheroe \& Morris (three days).

Dutch Bulbs, at Protheroe a Morris' Rooms.
Annual Unreserved Clearance Sale of Greenhouse Plants. \&c, at The Floral Nurseries, Castie Hill, Maidenhead, by order of Mr. B Owen, by Protheroe \& Morris.
THURSDAY, SEPT. $26\left\{\begin{array}{c}\text { Dutch Bulbs, at Protheroe \& Moris } \\ \text { Rooms. }\end{array}\right.$ Rooms.
FRIDAY, SEPT. $27\left\{\begin{array}{c}\text { Dutch Bulbs, at Protheroe \& Morris" } \\ \text { Rooms. } \\ \text { Orchids, at Protheroe \& Morris' } \\ \text { Rooms. }\end{array}\right.$
SATURDAY, SkPT. $28\left\{\begin{array}{c}\text { Dutoh Bulbs, at Protheros \& Morria } \\ \text { Rooms. }\end{array}\right.$
OORREOTKD AVERAGE TEMPERATURE FOB THE ENSUING WEEK, DEDUCED FROM THS OBSERVATION8 OF FORTX-THREA YEAKS. AT OHISWICE. $85^{\circ} .9$.

For many years of its existence

The British
Arosiation and
Agricalture. this journal, to the extent of half of its superficial extent, was identified with agriculture; and the Agricultural Gazette was reoognised as one of the farmer's stannchest friends and ablest advooates of his best interests. The man above most other men who was noted as the best friend of agriculturists was the Editor of the Gazette-Mr. JoHN C. Morton ; and his writings of five-and-twenty years since are as valuable and pertinent to-day as they were when first this journal saw the light. Mr. Morton has gone to his rest, but the good he essayed to do, and did, has not been "interred with his bones," and of this we have daily evidence; amongst other bodies the British Association has taken up the subject of agrioulture, and in the endeavour to forward its interests has achieved some amount of sucoess, and here it may not be out of place to remind our readers that the Agricultural Gazette's remedy for agricultural distress was summed up in the words, "free land, freedom of contract, suffioiency of working capital, and sufficiency of brain power." The British Association devoted Monday last to agricultare, and preparation had been made for a large attendanoe of those supposed to be most interested in agrioulture; bot the expectations were not warranted by the result. Men of high anthority in various departments of science spoke on the subject of Government aid to education, and the endowment of experiment; on the extension of the work of the Board of Agrioultare; to the pablication of results obtained by experimenters, the duty of County and Distriot Councils in the matter of agrioultural eduoation; but not a word that we can discover on the mesns adopted by fureign agrioultarists to make their trade pay them, and to some extent govern the markets in this country. Some admitted that of most things grown we manage to grow the finest orops-olimate oonsidered; and admitting this, the value of further experiment in questionable; and it being adnoitted that agricultare is an
industry like weaving or iron-working, some notioe might have been taken of the relative position of all in the matter of freedom of action, of the chances of profit in investment of capital in one, as compared with the other. It was gratifying to note appreciation of the fact that whilst the area devoted to Wheat-growing is decreasing, that set apart for Oats and Barley was steadily inoreasing-furthermore that the increase in the number of breeding swine was something like 25 per cent.
And so it comes to pass that, however interesting were the papers read and the oonsequent discussion thereon at Monday's meeting of the British Association - and nothing can be said against their value in these separate respeots-we are forced to the conclasion that the old propositions of the Agricultural Gazette above recorted are as unimpeachable as everfree land for the farmer, freedom of contract, suffioienoy of oapital, and of brain power. Given all these, and this one industry mast prove as successful as any other in the land.

Tillage and Nitrification.

From the earliest period to the present day adequate tillage of the soil has been counselled and practised, but so slow are the processes of the haman mind that although the operation has been practised from time immemorial, it is only now, thanks to the labours of a few chemists and biologists, that we are beginning to realise in what the advantages consist. In the course of a decade or two the physiologists have lighted upon truths of the utmost practical importance, which sucoessive generations of practitioners, from the time of the expulsion from Eden till now, have failed to recognize. The subjeot has been suggested to as by a paper pablished in the Revue Scientifique for June 22, by M. P.-P. Dreteratn, on the "Effeots of Tillage in Promoting Nitrification in the Soil." The oonolusions arrived at are, in brief, as follows:We know now how to take advantage of the phosphates and of salts of potash ; and if we knew at the right time how to convert the nitrogen contained in the humus of the soil into nitrates, agrioultaral produce would be proportionately inoreased.

To ensure much resulta the soil has, from remote ages, been constantly and vigoroasly "worked," but it is only now that we begin to underatand the advantages of such tillage and the conditions ander whioh alone it is beneficial. However thoroughly ploughing and digging be done, their value is but little unless the soil be in a damp condition. If the ferments in the soil whose action it is neoessary to excite are dormant or feeble, and do not begin their work in early epring, the tillage is relatively ineffectual.
The whole question of nitrifioation is dominated by the slowness of the evolution of the nitrio ferments. Rendered inert by the frost of winter, it is but slowly that they begin their work of nitrification, and produce only in April and May insuffioient quantities of nitrates. Hence the necessity for the employment of nitrate of soda; henoe the neoessity for having a fleet constantly at ses, oonveying these nitrates at great cont from the coast of the Pacific.
Now when the ground is damp, well aörated, and the ferments are sotive, there are produced, without any addition, many more nitrates than are necessary. The soil of Guadeloupe yielded, on May 30, 39 milligrammes of nitrogen per 100 grammes, or 390 milligramme per kilo., or 390 grammes, per tonne, or, lastly, 390 kilos. to 1000 tons-that is to say, infinitely more than
is neoessary for the heaviest harveat. In applying the same calculations to the soil from Eureos Loir there were found only the insufficient amount of 25 kilos. of nitrogen.
"What then is lacking?" asks M. Drhiban. Replying to his own question he repeats, "Aotive ferments." Can we go further, that is to uy, oan we oultivate these ferments and pass their nitrifying properties from one soil to another? Can we, in spring, sow nitric ferments in full activity which shall supply the place of thom paralysed by the frosts of winter? In thin an impossible dream? I know not. Leguminow plants owe their property of fixing atmospherio nitrogen to the presence on their roots of nodides filled with bacteria; now, already, on menad ocoasions, the germs of these bacteria harebun transferred from one soil to another with beneficial effect. From time immemorial mad tillage has been practised, the soil having at great oost, been transported from one place to another. For what reason? Whit do these soils contain? These are the problems which are now to be attuoked, but without discounting future possibility and limiting ourselves to present knowledge, we now know that if we put the ferments of the soil into working order, we oan obtain from it moro nitrate than the heaviest crops require, and, if we remember that it is not only under the influence of mioro-organisms that the nitrogen in the soil becomes assimilable, but that it is also by their activity that atmospheric nitrogim becomes fixed, that it enters into the oycle of organised beings, we reoognize how trae and how profound was the saying of M. Brbtheion, "The earth is a living thing!"
The paper concluded with an eloquent tributh to the genius of Pastrur, by whose laboun the nature of fermentation and the principles on whioh the manufacture of wine, beer, and vinegar depend have been elncidated. Pastras has investigated the parasitio organisms onusing disease in silkworms and domestic animals, and shown how their malign influenoe mas bo controlled or abolished. It is he who has devised "vacoines" which prevent the dertructive effeot of epidemic diseases on our flocks and herds. Moreover, the obsonrity whioh surrounded so many of the diseases of mankind is gradually being dissipated. II Pastrur teaches us how to cope with hydrophobia ; one of his pupils neutralises the poison of diphtheria. But to oure sick mankind is not sufficient. The healthy mast be fed, and nor we see more clearly how this is to be 2000 m. plished, and we recognize to-day that the fertility of the soil is due to the action of the fermentil which it contains.

Royal horticultural society's falit SHow. - On Thareday, September 26, and tmo following deys the Royal Hortienltaral socied' Great Show of British Frait will be held at Cryatal Palace. The exhibition, which promien to be even a greater anccem than that hol year, will be opened by the Lord Mayor, Sir Josill Rerals, at 12.30 on September 26, when he will be accompanied by the Sheriffs and the Mastra Warden of the Wormhipful Company of Gardasad A public luncbeon will be held on the mamed om 130 in the Grand Saloon, and will be prosided will be by Sir Trevoe Lawrexce, Bart. Lactures Hall given each day of the show in the Garden Froith d 3.30 ae follows: - September 26, "Now Hraiz 2í, Recent Yeare," by Mr. G. Bonrard; Seph Pusear "Praning Fruit Trees," by Mr. A. H. Pumerien September 28, Prize-ennay on "The Crerman Aopect of Hardy Frait-growing." Narestibit widet others are particularly requested to exthibit
the achedule. By direction of the Council, exhibit outaide the chedule will only receive card of Commendation according to merit. Vegetable, other than Tomatoa, are not allowed to be shown. With reference to exhibits outside the schedule, exhibitors should bear in mind the new rule adopted at the auggestion of the Froit Committee:-"All collections of fruit are limited to 100 dishes or bakkets, and all dishen or bankets must be of distinct varieties of fruit, no duplicates being allowed."

Beddinaton, Carbhalton, and Wallinaton horticultural Society. - The above
tributed by the trade and private growert, and County Council Certificates will be granted for specially meritorion production. The Hon. Secretary will furnish further particulars on application.
the Aoulteration of Attar of Robe.The difficulty in obtaining pare otto or attar of Rose in the European markets is a fact well known to all. Andropogon oils play the largeat part in thim "yatematic adulteration, but "Geraniam oil" from Pelargonium capitatum also taken a place. Some new features an to the authore of this adulteration have jast been brought to light in the Report of the
the otto may not be tampered with after reaching the merchant's hands, there is no means of enturing that the peavant, whose atock the latter buy up, hat not already adulterated it. Supervision during distillation is no guarantee, for the ingenious peasant is in the habit of aprinkling essence of Geravium over the freahly-gathered Rose before dintillation, in order to increase the yield. Congelation at a certain temperature, which is principally relied apon as a tent of purity, is quite fallacious. Thewe are new lights in the preparation of attar of Rose to which the attention of our perfumer will, no doubt, be directed, eapecially when it in considered the enormous price this pro-


Fig. 62 - ABCEPNANTEU8 mILDBBRANDII: FLOWERS ORANGE AND SCARLET. (sER P 324 )
(The single flowers to ther $r_{\text {- }}$ - siuldy of the plant are of natural dize.)
mociety, as Mr. G. W. Cummins, the Honorary Secretary, requeste us to inform our readers, have, in conjunction with the Sarrey County Council, arranged to hold a special thow at the Pablic Hall, Carshalton, on October 16 and 17, of vegetables, fruit, tec, and also a large representative collection of Potatos from trial plote in various parts of the county of Sarrey, grown ander the Technical Education Committee, to as to show the effects of diverso soils on the yield. Addresses will be given by the Sarrey County Conncil's inatructorn on horticulture on "Fruit and it Caltivation," and "The County Potato Experimenta." A fow prize will be offered for local cottagers' produce, whilat proviaion will be made for collection of regetables and frait cog-

British Consul at Sufia, in Bulgaria, where, mpeaking of this importint induatry, he ayy, the adulterstion to which otto of Ronem hae always been subjected seems hardly to have been checked by the prohibition imposed by the Government on the importation into Bulgaria of the adulterating madiam, essence of Graniam. Indeed, the quantity of otto which reachen the European markete in a pare atate must be very mall. Lat summer the British Chamber of Commerce at Constantinople sent a delegate to Kesanlik, the principal otto-produciag centre, with the view of procaring an aboolntely pure sample, to serve as a atandard for purpose of comparison. This gentleman, however, was obliged to return empty-banded, for he ancertained that though
dact realises. In connection with this peculiar and limited induatry, it in interenting to note that the cultivation of the Kexanlik Rowe has been atarted with some aucceat at Brouma, in Asia Minor, by Manalman refugees from Bulgaria.

Newcabtle and Dibtrict Horticultural Mutual Improvement Society.-The first meeting of the fifth seasion of this wociety was held at their room, 25, Wentgate Road, on Taenday, the 10th inat. The chairman, Mr, Bulloce, preaided over a good attendance. A paper entitled "Botany, as an Aid to Obaervation," by Mr. Jas. Scotr, Ferndene, Gateshead, wat read by the Secretary. By the discuasion which followed, it was evident that Mr

Scort's paper was the means of creating a good deal of enthaiasm on the part of the younger members to know more of the theory of their basinesf.

Californian Notes.-Mr. J. Buett Dafy, of the University of California, kindly send us three photographs, which, interenting though they be, are unsaited for reproduction. No. 1 is of Quercas agrifolia [?], Nés, as it grows on Mare Island, San Pablo Bay, Cal. It illantraten to some slight degree the carions effect of the cold westerly trade-winds in ahaping the outline of exposed trees. These keen winds, in many cases, abolately prevent growth on the exposed side, causing a curionsly "lob-sided" development; often indeed, in such sitastions, Quercua agrifolia, and especially Umbellulari\& californica, grow up conformably with the contonr of the hill behind them, being practically flattened out. No. 2 is a photograph of a lady atanding in a clump of wild Mustard (Brassica nigra), which often growa from 8 to 12 feet high, taking exclusive possension of fence corners and rich waste lands. No. 3 illuatrates a hedge of white Marguerites (Chryanthemum frutescena), 4 feet high, with a background of Quercas agrifolia [?] and Pines.

Opium and Morphia in China,-It is atated that concurrently with the decrease in the importations of foreign opiam into Amoy, it is found that large quantities of morphia are brought in, as mach as 800 ounces having been imported daring one month. A considerable portion of this is ased for hypodermic injection, this practice being greatly on the increase, and it is carried on at many establishmenta in the city. This habit is judged by medical men to be more injurious than opium moking. Habitual opiam amokers taking to morphine injections are enabled to abstain from the opiam pipe, but are by no means cured of opium amoking, as cenation from the injectione inevitably leads to an increaned indulgence in moking. Moreover, no care is taken to keep the syringen properly clean, and evil consequences frequently realt from the insertion of dirty instruments into the skin.

Agricultural Teaching in Aberdeen Uni-versity.-A conference took place on Friday, 13th insto, in Marischal College, Aberdeen, in reference to the proposed introduction of agricultaral teaching into the Univeraity. The apecial committee appointed by the University Coart in connection with the matter, met representatives of the Aberdeen County Council and Town Council ; Dr. Smitre, of Newhille, preaiding. The whole matter was fally discusced, gratification being expressed at the reaponse made by the pablic bodies, inclading $£ 200$ from the Town Council, to the proposal. The meeting came to the conclunion that there wan now a atrong claim for a liberal grant by the Board of Agricaltare, and it was remitted to the convener to asist the factor (Dr. Hontse) in preparing an estimate of the probable income and expenditare for the current jear, on the footing that there should be a lectarer on agricultare, and a meparate lecturer on segricultaral chemistry. The meeting on thic understanding adjoursed, till a reply should be obtained from the Board of Agriculture.

Botanic Garden, New York,-The tract selected comprises 250 acres of the most denirable section of Bronx Park, near the old Lorillard mansion. Included within the tract is a beantifal grove of Hemlock Spruce, which was not only the pride of the original ownerr, bat remains to-day one of the chief attractions of the park. Provision for its preservation is therefore made. The firat advance towards this object was made when the Torrey Botanical Society of Columbia College was fortaed. In 1891 an Aot was pawed suthoriving the project, but it was inoperativ* owing to the violation of nome constitutional provivion-the failure, it was asid yeaterday, to include is the bill an anthoriation of the city to is*ne bonde while appropriating the needed money. This defeet was overcome hy the enactment of chapter 3 of the lawe of 1894 . The muecene of the
project was ancured on June 18 lat, when,
meeting held in the office of President Setr Low, of Columbia Colloge, the assurance was given that the necessary 250,000 dols. to be secared from private sources had been subscribed. The site of the new home of botany is beautifully adapted to the growth and caltivation of flowers. In addition to the grove of Hemlock, which includes the entire went bank of the river within the tract, there is much protective wood. The Bronx farnithes abundant water, the oil is fertile, and there is both low and high lying land. The plot of 250 acres includes one-half of the entire length of the gorge of the river, which has been so often admired and sketched by artists. The natural scenery in delightiful, and the garden will be worthy of itn magnificent cenic setting. The citizen of New York will before long be able to point with gratification to a auperb exhibition, not only of our own flora, but also of the variegated and fragrant plants of other climes, equal to anything in Kew Garden, or in the famous gardens of Paris and Vienna.

Weeds. -The Bulletin of the Kanoas State Agricaltural College for Jane, 1895, contains descriptions and figares of the seedling plants of about 150 common weeds of the slate. The utility of auch work is so obvious, that it is to be hoped the managers of our village achools will net their children to work to discover and detect the seedlings in the fields and hedge-rows. In many cases this work may be done even in winter, and may be made interesting to the children.

Machinery Exhibition in Vienna.--The Consul-General for Aastro-Hangary (11, Qaeen Victoria Street) send an the following note:" Encoaraged by the great succens of the Exhibition of Agricultaral Machinery, held at Vienna during May lant, the Imperial and Royal Agricultaral Society in Vienna has decided to hold a necond exhibition in May next year. The prospectus will include not only agricultural machines in the atrict sense of the word, but appliances used in all branches of induatry connected with agricultare, such as breweries, diatilleries, yeast, sugar, vinegar, and atarch factoriea. The mart will almo extend to tools and engines used in foreatry, anw-mills, celluloid-factorien, orchards, vinegards, in the feeding and breeding of cattle, borses, fish, \&sc. It will comprise electrical machines aned in the service of these induatries, seeds and manares. Provisional applications for apace (which will not be considered binding) will now be received by the Committee of the Second International Exhibition of Machines. I. Wiens, Herrengasse 13, Austria. W. Prinzig, Acting Imperial and Royal Consul-General."

Nicotine Poisoning from Eating Grapez. -A paragraph bas been going the round of the papers, drawing attention to the poisonou natare of Grapes gathered from Vines to which nicotine has been applied as an insecticide, it being atated that neveral alarming cases of illness had been no canaed at Dorchester. In anower to our inquiries, Dr. Fismer, of Dorchenter, has furnished ue with nome particulars of the occurrence alladed to. It appears that aboat aix weeke fer a a vinery was famigated several times witu a preparation described an containing "the pure nicotine of tubacco in a highlyconcentrated form." The Grapes were not syringed or tonched in any way afterwards. A bunch of thene Grapes were partaken of by a lady and her daughter. The danghter soon afterward became deadly pale, felt ill, vomited, and, after lying down for some bours, recovered. The mother was more seriously affected. She felt giddy, turned white, and, after lying down, became quite cold, weated profasely, and thought he was dying. After vomiting, however, she slowly recovered, bat remained much upeat for the rest of the day. Another bunch of these Grapes was given to a lady and her child, soon after which the lady fainted, and the child was aick. A atrong young man ate a bunct in the train or his way to London, and he also wan most violently sick and ill. Another lady ate three
bunches on different occasions, and after each fetit giddy, and had to "hold on to the table;" the neither felt sick nor tarned cold, bat it thould be mentioned that she is accustomed to amoke. The cook also "felt very queer" after eatiog s banch. In three of the above casee, the aymptom were alarming, and all saffered considerably. Df. Fisher says it is manifestly difficalt to explain thess cases on any other theory than the one adrauced-namely, that the aymptomu were due to nicotine poisoning. The victime wero all people in robust health, never given to anch attacks, and they did not live in the same home. Tae importance of the subject is increased by tho fact that this preparation has recently found grow favour with gardeners and others on account of is great inacticide powers, and that although it is definitely atated on the label that it contains concentrated nicotine of tobacco, it is equily definitely stated that "the proprietor wishes it to m clearly understood that it contains no injuiew ingredient whatever." Perhapa not injarion to plants, bat the phrase is open to a double meaniags. To state on the label that the componnd shonld be kept in a safe place out of the reach of children in perhapa a roundaboat way of aying it is a poinon, but we prefer the shorter term. British Medied Journal, September 14, 1895.

Shirley and Surrounding District Gardeners' and Amateurs' Mutual Improvement Association. - The monthly meeting took place on the Parish Room, Shirley, Southampton, on the 16th inst., the President, Mr. W. F. G. Sprangara in the chair. The subject for the meeting was "The Caltivation of the Fuchsia," contribated by Mr. E. G. Wilcox, gardener to Col. W. Sinkins, Aldermoot Hozase, who is well qualified to apeak on the anbjecth he having gained first honours for the best ix Fachaias at the late Southampton and local shown Qaestions were pat to Mr. Wilcox on the abjett of manuring, potting the plant, and the anes to wieh Fachaias might be pat in bedn and bordert, all of which were atiafactorily replied to. A cordial role of thanke was accorded to the author of the paper, The attendance of membera was very good.
an exhibition of Vegetablebat Briahton, SEPTEMBER 12, 13, AND 14.-A vegetable show mu held on the above dates in the atore-rooms of Manti. Tilley Brothers, needamen, of Brighton, excelleat prizen being offored in upwarde of twenty clames, for all of which there was a keen contest, exhibis coming from all parts of England. The prineipal clase for a collection of not less than six kind brought eight exhibite. The lot prize fell to 监: H. Stevens, of Eaat Preston, Worthing. with sutumn Giant Cauliflowers, Satisfaction Potutan Autocrat Peas, Giant Ranner Beans, Snowball Tarnip and Onions, good Carrota, Marrowe, Lokk, and Tomatos. Potatos shown as single diabes mere excellent, especially Mr. H. Stevess' Snowdrop Kidney, and Mr. F. Clarg's Zanith. Upwarde of 200 dishem were staged in the variout clanen, and the show (the firmt of the kind held) was a great anceear.

Nova Scotian Apples. - The condition of the Apple orchards in the principal fruit diatritith according to the Government Report, is very atiir factory, with exception of Bear River, where s crop of not over 35 per cent. is expected, snd West Cars* wallis, where a small crop is indicated, although the bearing trees look well. Complaint is made of tho Baldwin, both at Bridgetown and Aylesford. Tho Aylesford Gravensteina alro do not seem to thim blossomed as fully as uenal. Other reports intirs King's County are:-fruit well net and maw wo eatiafactorily. The crop promises to be quiv arper average. Well net, clean, and mooth, crop aperaid but 25 per cent. less than the great crop of mivir Pests not troublemome. Present appearacace mith malh factory; no injary from insect pestal. Sab prospect good; some at Paradise have carber. and rollar. Crop not large, bat quality promil. Two be very good. The crop is mataring melijfremeth Plam crop is reported variouly from did
dietricts, mostly unfavourably, but there will probably be an average crop wherever the trees have beon reasonably well attended to.

Royal Botanic Society of London.-In the Victoria tank of this Society, in their gardena, Regent's Yark, there ir to be ween one of the fineat plants of the Victoria Regia ever grown in this countrg. It covera a apace of over 400 equare feet, pach of the eleven leaves measaring more than 7 feet reross apart from the tarned-up rims, which stand 6 or 7 inches above the water. The flowers are pink, and follow one another in quick pucceation, rising jast over the centre of the plant. Visitors to the gardens ahould see it now, while it is in ite greatest perfection, as, being grown as an annual, it will shortly begin to decay.

Mr. Barron's Retirement. - Concerning this matter, Mr. A.H. Smess has ment us a copy of the following letter, addressed to the Presideut of the Royal Horticultural Society, which we publiah in full:-"My dear Sir Trevor,-I mould be wanting in courtesy to yourself and other member of the Conncil if I did not give you notice of the questions which I propose to ank at the next annual meeting of Fellows, or at mach early period as the Council may think it denirable to call the Fellows together for the apecial parpone of taking them into their confidence. I shall require the prodaction of the minutes of the Council which appointed this apecial committee to report upon Chiswick, the date of it appontment, the namen of the committee, the reference and the scope of its enquiry, the report it made, and all the correnpondence emanating from the secretary or other officer relating thereto, also a atatement of the proposed changes in the management of its Chiswick Garden. I shall almo ank question which will require the production of the minute-book of the Garden Committee, and also the minutes of all the committees (frait and fioral), which visit Chiswick for the purpose of the reed trials, \&c. The logical outcome of the action of the Council (if the rumours are trae), by superseding the atandard committee and the appointment of this special committee, and not conalting them on their Cbiswick Garden, implies a direct vote of censure on all members of these committees, and is equivalent to a vote of non-confidence in the competency of the Garden Committee. The Council mast see that by the appointment of thi Special Committee questions are raised which are far more reaching in their consequences than the consideration of the dimmiasal of an old employe. It is a pablic announcement by the Council to the horticultaral world that they have no confidence in the ability, kill, or integrity, of the forty or more members composing their committeen which visit the gardens at Chiswick, and thiv, too, at a time when otheri like myself are endeavouring to raise the atandard of judging at local horticultaral exhibitions with a deaire to place the judging above the auspicion of local inflaence. The manager of these local hows bave aelected their jadges from members of the fruit and floral committeen, who, the Council by it action, have considered to be unworthy of confidence for conaultation ar to the management of ite own garden. How will it be powible for the manager of local shows to continue to employ them as judges? What, too, is the position of the members, who are employed in giving technical instruction, and acting as public examiners of candidates' papers on horticulture? To my mind their character is at atake, and some action mut be taken in this mater where everything depends apon confidence. The Council mast, at a public meeting, justify their action, or retract their proceedings; they must either rehabilitate the cbaracter of the members of these committees, or reconstruct the committees. The sonner the matter is cleared up the better, for the uncertainty which overhangs the question is doing no good to horticulture. The least that can be the outcome of thi unfortanate action of the

Council will be that ite proceedings have been most unbuainesalike, and that they have anintentionally committed an uncourteous and ntupid blander."

Fruit Essay Competition.-In consequence of the excellence and equality in merit of two of the easays on the "Commercial Aspects of Hardy Fruitgrowing in the Uaited Kingdom," the Council of the Royal Horticaltaral Society increased the prizamoney originelly offered, and Mr. L. Castle, manager of tha Dake of Bedpord's experimantal fruit farm at Ridgmont, with Mr. S. T. Whight, Glewaton Court Garden, Roas, have hat the honour of being awarded equal first prizos. Oas of these esaay will be read at the Cryatal Pulace fruit show, and both will preaumably be published as soon afterwardas posible. Tha adjudicators were Mr. A. F. Barron, Mr. J. Weight, and Rev. W. Wiles.

Australian Timber.-It has for years been a pleasant daty to record any endeavour to popularise the use of Australian wood in this country, whether for paving or upholstering purposes. Gradually the Eacalyptus and other large timber treem have become popularly known, if not as popalarly used. To-day our vehicular traffic is carried on over roads constracted of wood from the Antipoder, and promise is not wanting that New Zasland and Australian timbers will soon obtain higher rank. The Manchenter Ship Canal Company, we believe, are endeavouring to make a market here for the wood noticed; they have bronght, and contiaue to bring, to Manchester what may be looked upon at pioneer cargos for that section of the indutrial world. The venture, we have been informed, hat so far been accesaful, and there is no doabt that, when the capacity of the Eucalyptus is better known, it will enter in anccesuful competition with most kind of timber now on the market.

TijD8Chrift voor Tuinbouw "-The three first monthly parte of a ne horticultural journal have bean published at Gröaingen by Mr. J. B. Woutires. The publication is edited by Dr. Bos, Measts. E. H. Krblage, Lionard Springer, and others, and is illastrated with coloured plates and other illastrations.

## PLANT PORTRALTS

Aerides Houllethenum, Revue de ${ }^{\text {Henticulture Belge, }}$ Septeraber.

Aphelandra nitens. Garden, August 17.
 ticole, August 18
Cattleys "LeopoldiI."-Appareatly a form of C. gigas, with wh te flower-segments and a brovi frilled lip of a re inlisb purple colnur, with a yellow throat. Lintenir, t. Odxxixy.
Cocelioda Noezllana, Rolfe, nrchid Album, to $\overline{6} 9$.
Coryle's rostrata, Garten ned Firest, angust 29.
Demprobilis yobile candidulum Lintemin, $t$ colexx.
GODetia Whitneyi var. Revue de 1 Horticultura Belge, September.
Hemerocallis auramthaca var, Major, Gardeners' Magnzine, August 17.
Magnolit CAMpBelli, Ga-den, August 24
Marica Nortilanavar, splendens, Cognisux, Thwtration Horticule, t. 40 .
Maxililitia nigrescers Opchad Alhem, t. 511
Mimulus Qutweugyulaerus, Tijdschriftroor $T_{\text {uinboww, }}$
OD.
Oetween 0 . Pescatorei and 0 . triumphana, raise 1 in the conllection of M ie Comte de Bousies, Chateaud'Earvengt, Linderia, colxxilif.
ORCiDum ormithoreymoum albiflorum, Orchid Ahmen, . 512.
Onctivem spmopterum, Lindley, Orchid Album isio.

Rhododemdror grande, Garden, August 10.
 Tuinboww 1891, $t .2$.
Rosa Luclic. Gardeners' Magazina, tugut 17.
Rubus ca-ensis, Garfen, Angust 17.
Sclele bobrion Multiflora, Garden, Augut 31.

## AN ORCHID COLLECTOR.

David Willias Alexander is probably known, either personally or by repate, to everyone intereated in Urchide residing in Grenada and Trinidad. In appespance he is a strapping big fellow of the African rac., and has a mloment face and pleseing manuers. Hir home in Grenada is called La Digue, and when at home be is, a geatlomax in a cloth
suit, and whining bleck shoes, His costame when collecting, however, is very different: he then dons a atrong canvas ait and peaked hat, and no shoes. A very sharp-edged cutlant hange from his aide ready for emergency. He works very hard, and can undergo day together the extraordinary work of collecting, during all sorts of weather, alone in the deepest wood, where he often sleeps, on eme branch of a noble tree, out of reach of the wild animals which roam around him at night in search of prey, and whofill the forest with weird noisen and screans like those from haman beings. $H$ e is woodeman enough to know the bird or animal that vente hie feelinge in such a way; whowe hises and roars, or plaintive note belp to denude the night of the awinl atillaess that reigns through the forest by day; which of the two is pleasanter is best known to one who has experienced both, but Alexander gets his snatcher of aleep in spite of them all, and resumes his searchings as day dawns. Up in the topmost branches he is able, through long experience, to detect mall Orchid where others might search in vain. Sometimes he has to fell the treen to obtain his treasares, and generally being alone, he has to carry his rich but heavy loads many miles to the nearest place for shipment. He does a great deal of collecting in Venezaela for gentlemen ia Trinidad. From thence he has already brought to light one new Orchid-probably more; and it is probable that among bir recent collection more will be added to the known list of South American Orchids. Of the Trinidad forms, he appears to know the habitat of each one. Ever since Mr. Prestoe's timein Trinidad (a former (Government hotanist there), he hae, I believe, been a collector of Orchid. The very few commercial Orchids native of Grenada offer no inducement to the collector; hence Alexander's frequent journey to Trinidad and Venezaela. His large collecion at $\mathrm{L}_{\mathrm{a}}$ Digue, Grenada, represent a choice selection of plants, and are sold as often as a good offer presents itself. All these plants, with few exceptions, are mounted on blocks. Among thene might be instanced: - Oncidinm Papilio, O. lanceanam, O. citrinam, O. laridum, O. hrematochilum, O. altissimam, O. iridifoliam, Diacriam (Epidendram) bicornatam, Gongora macalata, Coryanthes pecies, Cattleyas, Rodriguezia secunda, and Cycnochen species. These are, however, but \& few, noticed when the writer paid the collector a visit about a month since.
A word more of his home. La Digue is eome 2 to 3 miles distant from the town of Grenville, or, say, 14 miles away from the town of St. George, the principal port and town of Grenada, where the mail stearaer companies and otber hipping have their depôt. His house, which atande amidst a amall Cacao plantation of his own, is kept beautifully clean. He evidently lives a very pleasant bachelor life, and on good terme with all mankind. W. E. Broadway, Botanic Garden, Grenada, B. W. I. 4ugust 22, 1895.

## home Correspondenoe.

CAMPANULA NITIDA.-AB we were promised that there should be a review of the garden Crmonulas, which were to be grown and examined at Chiswick, I have been esgerly looking out for momothing about (that ancient sad mystorious garden plant, C. nitida botaniets, though too enatioue to ay wo, would agres that the plante which pave ie gardens and herbariams under this name, and which are anid to have flowert either blue or white, single or double, are nothing more than permanently tunted forms, probably originating at different times, of C.paracifolia. The oldeat figure of tha alleged macien in in Dodart' Histoire do Plantes (Paris, A D. 1676), where is is called Tracheliam americanum minu: tlore coeruleo patalo. Since that date it has had at leat half-adezen names. Its hiatory incarefuliy invantigated by De Candolle in hie Monoyraph of Campanula, p. 313. He aryn he fond it in many herbariums and gardens. rarying from 6 to 18 inctem high, the specimens agreeing in nothing but the flowers, which ware precisely those of C. perncifolis, but maller. He nover could obtaia a aeed of it, and found it die of
cold in very severe wintert. This seems hardly conaistent with ite elleged habitat, Arctic America; but it was probably referred to America by gardeners for the asme reason that many plants were referred to Jerualem a century earlier, because no one waa likely in thone days to go there to look for them. America during the present centary has been pretty well hunted for plants, and Asa Gray in his Flora of North America, says of this plant " vaguely attributed to North America, wholly unknown in a wild state, apparently, allied to C. peraicifolis and not North American." My experience of the plants acld as C. nitida is that they are not consistent with one another; but most of them if planted in good rich oil, either develop their growth into typical C. per-P.S.-If this alleged species were lost, I woald undertake to make it again in a very fow yeary by a velection from dwarf form of C. pernicifolia. C.W.D.

ERITRICHIUM STRICTUM (?).-A most beautiful and continuously free-blooming hardy annual, with deep blue flowers, was sent to me in the pring of last year by the Rev. Theodore Marsh (the wellknown raiser of hybrid Lachenalise), of Cawaton Rectory, Norwich. He wrote to me when wending it that, being perfectly hardy, it required no special care, and nually sowed ita own seed freely all round wherever it grew, so that by transplanting the seedlings in the spring, it could be made use of wherever a border of blue flowers wan wanted in the garden. I transplanted my self-sown eedlinga accordingly this pring round one of my beds of Lemoine's Gladioli, where they have bloomed continuously and most profusely daring the whole ammer, and have been much admired by all visitor to my garden; to none of whom was the plant known, and nearly every one asked for the name, and wished to know where they could obtain eeed of it for next year. The amall deep blue flowert exhale a atrong perfume, comewhat reaembling that of the flower of the common Lime tree, and during the aunny hours of the morning they are covered with flien, been, and other insects, who seem to find the odour very attractive. I have not been able to find the name in any of my books of reference, except the Inder Kewensis, the horticultural dictionaries only mentioning one pecies of Eritrichiam, the pretty little alpine, $E$. nanum. I sent some flowering specimen to Memrs. Catbush, the well known London nurserymen and seedmen, who wrote me that they knew it, and sold seed of it ander the name of Eritrichiam nothofalvum; and to them I have accordingly referred all my friend for meed of this mont ornamental plant. On referring to the Index Kewensis for this second apecific name, I find it is said to be ynobymozi with Plagiobothrys nothofulvus. I also went flowering specimens to the Herbarium at Kew for identification, and the learned botanical anthorities there asid it wes not an Eritrichium at all, but apparently one of the Hound's-tongue family, Cynoglonam furcatum, figured by Wight in hin Illustrations of East Indian Plants, vol. iv., t. 1395. I hope some of your readers will recognise and give the correct name of this plant. W. E. Gumbleton.
aLUGS AND WORM8.- You mant be almost, if not quite tired of the above aubject, bat I know not how to get information except by jour paper. If Mr. W. T. of Binhop's Teigaton, South Devon, will kindly allow me, I will send him one of the earth nugn if I find that they have no shell, which I have not noticed at present. Perhape "W. T." can tell mo how many corti or varietien of the little fiuk called aticklebacky there are? I. Walton only mentions one; but I am told one variety hes three apines on it back, another two, and a third has only one spine. Robert Warner, Widforà Lodge,

JUDGING AT METROPOLITAN ANO LARGE PROVINCIAL HORTICULTURAL EXHIBITIONB. Permit me to suggent that, at all important open competition of this kind, there hould be an expert (say, from Royal Horticultural Society), in attendance as a warutineer, to see that no point of merit in the exhibits are overlooked, and if any error occur, that it may be pointed out before the adjudicatora leave their work. Generally men of notable poaitionm are eelected an judges, taker, and a scrutineer all, they are liable to mirecuring jutice in each would materially aniat in their judgment se perfect ward. By thut making be of the greatent value to ponere the, they would inamouch ar thousand go to memier local nocieties; the point of merit in the mords, and taw to study
afforded. Consequently, judge at local showi are often twitted if they endesvonr to correct evident orrors; and sometimes they bring undenerved contumely on the judgen, quibbling and cavilling between competitor and committeen. I could inftance some 2wards at a high-clasp provincial show recently held, which have borne fruits at absequent chows, and which farnished pegs for the nonplated competitor to hang his quibbles upon. $P, M$.

HARDINE88 OF CLEMATIS DAVIDIANA.-It maY interent your corrempondents in to-day's number of the Gardeners' Chronicle to learn that the Clematis open groand. It was planted about a year ago, and is now a nice bushy plant, covered with grey-blae flowers. We did not admire it very much at firat, but now it has gained upon our affections, and there is no longer "a talk" about digging it up ! It has the great recommendation of novelty-so dear to ladien! $H_{0}, M_{1} E_{\text {. }}$, Leamington.

A VINE 8PORT.-I looked in the other day to see some of the wonderful example of fruit, plant, and flower culture at Mr. Thomas Rochford nurneries, at Broxbourne, Herts, and was shown a very remarkable instance of variation from the original on a Vine of the Black Alicante Grape. The rods are not of great length, and they are furninhed from base to summit with splendid bunches. There is no question here of the transfusion of sap by grafting. The Vine for 4 or 5 feet from the base is producing bunchen which are undoubtedly Alicante; the apper part of the rod about 6 feet or more is producing Grape altogether different, and resembling in size of berry the Gros Colmar; but, the leaves and wood are not of this variety, nor are they quite identical with Alicante. It is cariou* that the Vine should thas break into a new character at a certain point, and retain it to the very top of the cane; in all my experience of Vine growing I never knew auch a case as this. The difference in the berries is momarked that it cannot escape observation. J. Douglas.

THE DOUBLE-FLOWERED DAIBY.-I was very pleased to nee Mr. E. Bennett's remarks on these flowers in a recent issue of the Gardeners' Chronicle, p. 206. I have seen Daisies at their best in the three place named-Aston, Cliveden, and Belvoir, and have no heaitation in placing Aaton first with this lowly flower. It was well worth the journey from Bary to Birmingham to see the Aaton Dainies in the heyday of their freshnese and beanty. Mars was indeed marshalled into might as Diny edgings extended into mile of broad bands, or furnished enormous massen of beds and border of brilliant colours. The Daisies, in fact, were the eyes of thone beantifal garden, when mpring gardening at Anton was at its best, Mears, Fleming at Cliveden, and Wm. Ingram at Belvoir, each mede good use of Daisie in those great examples of apring gardening. But in thete the Daisies were accessories rather than principals, as at Anton. And now, through no better reason that I can diacover than the caprices of fashion, the employment of Dainies is on the wane: spring-flowering bulbs, annuale, Violas, Primrones, Aubrietian, Arabis, \&c, having crowded them out from many a spring garden, and other plant are also tharing the same fate. A few years ago it was no uncommon thing to see many thoumand of Forget-me-Nots, mostly of the best of all the early-flowering varieties, viz., Myonotia dinnitiflors propagated for apring bedding every jear; but now Dainies and brilliant contrsat to the sapport to the Dainies and brilliant contrsat to the jellow Primroses in anch bold and telling massen as were common at that time. Writing of Daisies, it is to be hoped that we may not low the quaint Hen-and-Chicken form amid our changes of fashion. Farther, doen any reader of the Gardeners' Chronicle posses the white-flowered Hen-and-Chicken Dainy, or has anyone Deen auccenalin raising new forms of this curious and intercatiag plant? Perhape the introduction and illatration of the new Dainy, Bride, and Mr. Bennett' interesting and informing letter may do very much to restore the Daisy to its old place, power, and popularity in our apring gardening.

TRIAL8 AT CHIBWICK, -A recent wrangle over the nomenclature of Bean, with a parposelesa remalt, led to the atatement being made on behalf of Chiswick Gardens that everything sent there for trial was not tried. That such is the case is due firat, to lack of apace, and second, to there being no trial of the particular producte taking place that suan. There is a general sasamption in the
country that any one may unnolicited aend anything oblivious of the fact that one thing grown doen not oblivious of the fact that one thing grown doen not
conatitute a trial, but that real teate of value a found only when the beat representativen of ang one product are grown along with new-comern. It wh doubtless under anch conditiuns that the Bean, the unfortanate object of a sharp diacuasion recently, wh in 1885 put on one side at the time, and was, with many other things, probably relegated to the dautheap after the seed bad become sterile. There can be no doubt, however, but that the best work done by the Royal Horticultaral Society at Chiswick in found in it annual trialn, and it would be indeed a grave miafortune were any cheme, however valuable, that may be proposed to govern Chiswick operations in the future, should in any way interfere with or militate againat the continuation of thene trind There are timet and seasons when these triald $w$ most accesaful, and others, when arising fiom adverse measone, they are less so. Theme are accidents which always arise in gardening, and may not be absolutely under our control. None the lens, theno can be no doubt whatever as to two thingu. First, that every effort of which the garden ataff ham been capable have been put forth to conduct these triale succeasfully and impartially; and, second, that the respective committees, when they have ansembled at Chiawick to examine realte, have done so in spirit of abolute impartiality, and entirely devoid of bias. I have aeen a good deal in connection with these trials, as a member of one of the committen and can traly aver that those membera who attend the meetings at Chiswick, and be it underntood do to at personal and pecuniary acrifice, come to their work with the honest desire to be juat and impartial, and nothing more. Very rarely indeed is it that : member has any interest whatever in what may bo under trial-and if he have, then he is invariably absent. Only recently, at least no far as the Fruit Committee is concerned, does it seem to have been the practice for that body to call for a trial, which in now done in the form of a request to the Council to anthoriw a trial of some particular product during the ancceeding year. When that committee finds certain products apparently new, or at least professedly 00 , constantly coming before it, what wonder if it ak for a trial of that product at Chiswick, becaute 10 many claimants for honour being in the field becomes rather monotonous, as well as puzzine A good trial helpa to clear the sir of dubious claim for superiority, and often hows that novelties n called are neither novel nor improvements. A nof able trial requested next year is one of Cucumbers. This is a vegetable with which undoubted advanco has been made during the past ten years, but atill ina quite so great an to justify the production of at lemi a dozen new claimants for honours in one year No wonder, with to many Richards in the field the the Fruit Committee felt the best courne wi invite the Council to promote a thorough trial a these annamed new and entablished older sorts Chiswick next year. It is practically impomible fot any committee to deal natinfactorily with Cucamberi at the table, especially when the exceedingly fine handsome varieties in commerce are remembered. In asy improvement or advance is to be fonad if ce d only be in the direction of greater precocity cropping qualities. It is very eany for "Heads" Tails to ancer at these trials, bat a seat on the committee for a year or two helps materially thes teatify to their exceeding necessity. Bat of emaina the difficulty as to the efficient conducs of Cucumber trial at Chiswick. Without donbt beat resulte are invariably obtained in lowolping houses, such as are found in market or seed grom so eatablishments, where Cucumbers are grom is admirably. There is, so far as I know, no hou is wo the garden suited for a trial, and if the traad The have any value a big one must be conducted. in best results are also got when plants are gtro pots or boxes of restricted size, or in shable. The nal for root-area muat be not too conniderable.
also ahould not be very far from the glast. uch conditions to be farniahed? If daring the Council could erect in the gardens s pan houne, ayy 100 feet by 12 feet, central alley, they would then provide lac Tomatos, and nuch a house kreat service in the garden in There are one or two exceptions perbaps general good succem attendant on vege he gardenf. Peas do not alwayagrow the soil is very porons, and rapidly driet, whim it bol certain that the enclozed atmonphere be
resther literally mper-heated. These are not condition ordinarily favourable to Pean. Still, $o m e$ first-rate trial have been furnished when seasons have been cool and drippy. Potator, again, do not often tarn out well; that is chiefly due, as this year, to the excessively porous natare of the soil, and to its being too highly charged with nitrogenous mbstances. A firmer soil, in which nitrogen is a minor element, and phosphate and potah are in greater proportion, is alway better for Potatos. Disease has badly raged amongat the trial Potato at Chiswick this meason, sud the growth of top is abnormal. I have found the ame reault exactly on aoil of preciaely nimilar texture, and highly charged with nitrogenous nature at Richmond, but at the anme place on poorer and atiffer moil the crop is clean and excellent. Some of the asme varieties much disesed at Chiswick have given splendid crops on poor soil in various part of Sarrey. It would be well for these two vegetable if the Council could amewhere obtain within a few milea an acre of more open and firmer soil for future trial ; that would then leave room for some other thinge of intereat to be grown at Chiswick. In both direcuion tho interestst of horiciontrare woud to greatly werved. A. D.

TOMATOB TRUE TO NAME.-Year by year the difficulty of obtaining Tomato seed true to name is becoming greater, eapecially in regard to the varietie of fine quality, viz., Hackwood Park Prolific, which I mske bold to say, from several yeara' experience in growing the ame, as also the mplendid cropa I have eeen growing elsewhere, is the fineat market grower' Tomato. 1 have at different times procared nome seeds, presumably of that variety, from the leading seedomed, but have been sadly disappointed with the reault. In one case not one plant out of a thousand or more, grown from a packet of seed, bore any resemblance to the true variety, but proved to be almost worthleas. In another inatance some 50 per cent. were true. A neighbour of mine has this eason been greatly disatiafled with seed obtained from what was considered a reliable source, Doubtless many other could a aimilar tale anfold. The variety above-mentioned wae raised by Mr. Bowerman, gardener at Hackwood Park, Baaingstoke, and it was awarded a First-clans Certificate by the Royal Horticultural Society. The btock then passed into the hande of a well-knows narsery firm, with whome name I am acquainted and, judging by the babit of the plant from a trial packet of seed receired some few weeks aince from this firm, I think they have the true variety. Another variety, also difficult to obtain true, is Trophy. At present I have a house planted with plants raised from seed from a well-known London firm; and although Trophym, there are fully half-a-dozen other varieties, inclading bad forms of Old Rad, Dadham Favourite, \&c. The 'Trophys are very good, but I would not care to asve seed from such a mixture. hold that, where seed-asving is practised, there should be but one variety grown in the house, and that true Anyone converaant with Tomato growing will know with what ease the pollen of these purious varieties on a hot dry aummer day is wafted about by carrent of air through the house-without mentioning other moans whereby it gete distributed. I asy that seedsmen cannot be too particular an to the anrce from which their tock is obtained. There is nothing more annoying than after careful and painstaking calture of a house, or houses filled with plante, to find when the fruit appeare that it is not the right thing. It is only a question of a half-a-crown or $s 0$ at the outset, but when wrong varieties are applied, and 2 in my cane, really worthlese ones, the lose involved is serions, enpecially to a market grower P. F. Le Sucur, Grand Vale. Jersey, Sept. 10.

RED.FLOWERED DENDROBIUMS. - Mr. Rolfe' remark on Dondrobiam angguineum ( $p .292$ ) lead. me to think he is not acquainted with D. arachnites. This species flowered the first time at Downaide in 1885. A dencription of the ame plant is given in Mearn. Veitch \& Sons' Orchid Manual, part iii., p. 18 It is dencribed as a remarkably beantiful and intereating Dandrobe, producing brilliant red flowers. A flower and pueudo-kulb was forwarded to Professor Reichenbach, who identified it as D. arachnites, and dencribed by him in the Gardeners' Chronicle, 1874. Profeasor Rgichenbach sent a note to the Gardeners' Chronicle, July 4, 1885, in which he maten :-" This lovely gem has waited a long time from our first nowledge of it ap to itn flowering in Eagland. It came firnt from my oldent Eaglinh correnpondent, Mr. Stuart Low, who preaented me with a giant dried flower that exceeds in nize
pither of the heven orther fowers at hand.
 from his correspondent's letter, which said the plant was very rare. Lastly, Mr. F. Sander appeared very pleased with Mr. E. Rimann, a very ardent collector and connoisseur of Dendrobia, for sending liviog and connoisseur of Dendrobia, for sending living rather jellowish honej-coloured, neatly atalked, perhape not so alwaya, as Mr. Rimann's aketch does not represent it. The flower have broad, linear, blunt, equal sepals and petale, and a much broader lip of different thape, sometimes aimple ligalate, with bavilar anglef, sometimes with a very attenaate anterior part. It is convolute. The whole flower is of a very bright cinnabar-red, the veins of the lip being partly covered with a peculiar bue. The average flowers exceed 1 inch in length. Mr. Low's flower in like the father, exceeding the present ones by a half length. Mr. E. Kimann speaks in the higheat term of it, and ach a pyramid of cinnabar fowera an he aketched them must be atriking. Of the leaven I know nothing. I wan lately mont agreeably aurprised to obtain a tine freah bulb, and a very good flower from our Orchid Cı oesus, Mr. W. Lee." Prof, Reichenbach arya, "Of the leave I know nothing;" but some time after his note appeared, he paid us a visit, and I remember the first Orchid he aaked to see was this Dendrobe in quention, when he particularly admired the new puendo-bulb and leaves-but whether he recorded any farther notes or not will, perhaps, not be known until the secreta of his great herbariam are revealed to the world. C. Woolford.

RUBT IN BEGONIAB.-I am an extensive grower of Begonims, and it is my opinion that the so-called rust mentioned by " W. K. " in your latit isue, p. 304, is cansed by neglect on the part of the growera, for I do not believe that the amall white insects are the canase of it. I am more inclined to the opinion that it is produced by fungus, induced by inaufficient ventilation, being careleas with the water-pot, and the use of atimulating manures. I have seen Gloxinias aimilarly injured. Flowers-of-alphar will be found an effective remedy if prinkled on the foliage. H.W.

VINE AT HACKTHORN HALL, LINCOLN, - In the notice of this Vine on Saturday last, the name of the gardener, Mr. William Popple, who planted the Vine twenty-five yeara ago, and to whose care it andoubtedly owes mach of ite success, was accidentally omitted. $C$.

THE ROYAL HORTICULTURAL EOCIETY AND MR. BARRON. - We are stilt in the dark as to details, but cannot rest until the Council has recognised its reaponaibility, and har made all plain to it constitaency. Perhaps we bhall leara next week that a return has been madd to the status quo ante, which might be the bent remedy for blandering- which seems to have been heavy, if only from the point of view that right was done in a wrong way. If this retarn is not made I am anxious for the fature, and wish, in the tirst place, to support "Introspecsor" in his contention that $£ 200$ a year is not a sufficient alary for a qualified man as the new Saperintendent It is not a living wage. The very least that thould be offered is $£ 250$ a year, with a house and it unual accompaniments. If the Society offers f300 (and a house), it would not be a penny more than a mitable man with a family ought properly to pend. I have no interent whatever in the appoint ment, and therefore consider it a duty to make theme remark. The right man for the post would not be well off in any case; he mat be a first-clant gardener, and a man of calture and refiaement, and muat be prepared to entertain, and could not live in a anitable manner on the alary offered. It is the duty of the Society to offer a ealary apon which a man may live without difficulty and diccomfort. I do not consider, indeed, that the kind of man for the post is really well paid with less than $£ 400$ or $£ 500$ a year, which it, perhapa, no more than that of the town aurveyor who looke after the neighbouring roads and sanitary arrangements. Many technical meaget much more, and I beg to akk why a proficient horticulturit ahould receive less than the average of other tech nical partons. I may refer, for instance, to the Telegraph Dapartment of the Pust Oflice, which I happen to light upon in Whilaker. Farther, in consideration of the future, it meems to me rah that a Council, not elected for the purpose, hould proposi the reorganisation of Chiswick. We have always underatood, rightly or wrongly, that a Conncil not qualified for dealing with Chiswick, was, necensurily, reprenented by the Chiewick board, which, however, is
well qualified. The Council need not be ahat off from all concern in dealing with Chiswick, bat it is above all things essential that qualified men alone ihould be directly responsible. I regard the Counchl, of cuure as a mixed body, or at any rate, liable to be so, and it has always appeared that a delegation of cumpetent men was anavoidable. Tais delegation due exist, in the Cbiawick board, and f1on what has tranopired it appears ntceasary to demand for it the right to primary concern and reaponaibllity in any reorganiantion that way be contemplated. If the Buard is not acrong, it can very easily be made no. This leade me to my last point-the position of the new Superintendent. We know perfectly well that even membere of the Council may not be able to recogniee the technical nature of the work to be done, and might cricicise or influeace without knowledge of the matter in hand. It is, therefore, important to ecure that the new Superintendent shail hold a ponition of unquestionable reaponability and authority, ave su the presence of a duly authorised and qualitied commitree of the Society. To the Chiswick Board he ougtit to act as Secretary, in order that he may be in close touch with that body, and be in a position to under stand and be underatood. He cannot be regarded at a mere subordinate, but mut be looked upon as a member of the Society in an eapecially responsible ponition. The head of the Chiswick garden is recenarily the chief officer of the Society in practical matter and unless this is fully recognised it is imposible that Chiswick can be managed, as it ought to be, to the full benetit of the Society, and for the good of the country. After all, he is to be hoped, the Council may retract and thus avoid an increased expenditare, which, so far an is known to anyone untaide, is quite unnecensary-unless, it be perhaps, to provide the present Superintendent with the anistance he may want. Pro bono Publico.

- The matter can hardly be left where it now atands. The pablication of the names of the opecial Council that advised the Council in thi unfortuate matter doe bat make thing wore With a few exceptions, the names repremen nothing in particalar to horticalturiats; and bad each been at weighty as that of Mr. Duuglas, it is o
infinitely more importance in a matter of this sort to know what was asid or reported than who said it, Gardenern wherever they meet are hungering to know two things-firty, the full text of the apecial report that led to Mr. Barron's reaignation; and eccond, the character of the new policy which seemed to the Council incompatible with the retention of the distingaished services of Mr. Barron The honour and the interents of the Society, an well as the wounded esprit de corps of the craft, require the production of both at the earliest ponsiblu moment. D. T. Fish, September 17.


## THE QUARRY, SHREWSBURY.

The Quarry, ae is well known to many render of the Gardeners' Chronicle, is the place wherein the Shropahire Horticultaral Society hold its great annual exhibition of plants, cat flowers, fruits, and regetables, and it would be hard to find a more witable and charming sot in which to hold a show of mach magnitude and excellence a in the Shrewnbury Floral Fa: The aite occupies a fairly central ponition in the town, and is within casy reach of the general railway tation. Nature has been very kind to the Quarry grounds, which cover an area of about 12 acres; and the Corporation of Shrewabury (to which body this pablic park belongs), backed up by the Shropahire Horticultaral Society, have mado the most of the advantages afforded by Nature, until place of very delightful and quiet resort hat been provided for the inhabitants of and vinitors to the pictaresque town of Shrewabary.
The entrance to the Quarry is close to St. Chad's Church, and is a very imposing one, there being a roomy and handsome lodge of the Qaeen Anne atyle of architecture, wibh seversl masive ornamental gilded iron gate: adjoining, and provided by the Shropahire Horticaltaral Society. Right in front of the gates is a broad straight avenue, which extend about 400 yards in lengtb, in a gradual dencent down to the broad, wiftiy-flowing waters of the windicg Sovern, and is flanked on either aide by extra fine apecimens of Lime trees (Thlia europest), which were
planted in 1720. A statue of Hercules at the ond of this avenue appears to gard the approach thereto from the river, a ferry being close by. This avenue divides the Quarry grounde, but admits of free access between the lines of trees from one side to the other at any point. Daring an exhibition that part of the grounds to the left on entering, contains the several large tents in which the horticultaral exhibite are staged, secretaries' tent, luncheon tenta, and the splendid bandstand-also we believe the generous gift of the Shropshire Horticultural Society, and the ornamental portion of The Qaarry, known as the "Dingle;" while that on the right accommodates a variety of attractions acrobatic, fireworks, \&c., with a row of refreshment tents in the background.
The "Dingle" referred to is aituate at the rear of the apace occapied by the exbibition tents, and a ahort distance from the banditand. It in a hollow of conaiderable depth, and covers about an acre in extent. One half of this apace consists of water, with a circular jet fountain in the centre, shedding its silvery spray about 9 feet above the surface of this miniature lake, in which Lilies, \&c., are luxariating. The other hall is laid out with flower-beds cut out of the grassy sward, with another fountain playing in the centre of ame. The "Dingle" is partly anclosed by trees and ahrubs, with an inner boundary composed of rough atones forming a bank of irregalar height and outline, with varions kinds of hardy plants of bushy, drooping, and trailing habit growing thereon. Well-kept gravel walks lead to and internect this charming dale-like ammer retreat.
Beds filled with golden Harry Hieover Pelargonium, intermized with variegated grass and edged with blue Lobelia, had a pleasing effect; an also had beds of "Happy Thought" Pelargoniums, edged with dwarf variegated grass and blue Lobelia intermixed, and acarlet Tropmolum edged with a good band of Bambasa Fortunei variegata, Begonias, aloo in variety, having an outer band of blue Lobelia and Golden l'yrethrum ; scarlet Pelargoniume, encircled with a band of variegated-leaved Pelargoniums; beds filled exclusively with Heliotrope and Pentstemons; and raised beds, with scarlet-llowered Begoniae, intermixed with the ailvery-leaved Dactylis elegantiesima in the middle, and having a raised band of Saxifraga dena, showed up to advantage, the coloura in the individual beds harmonising well with one another, and contrating effectively with the surrounding objects, includiag beds of Rhododendrons and Bracken. A grotto, with water trickling down among the hardy Ferna which grow out of the walla, \&ce, and a fine statue of the goddess of the Silver Lake, presented by the Earl of Bradford in 1879, are also festures of the Deil. Underneath the recambent figure of the goddens, which rested on a pedestal having three stepa accending thereto, are engraved the following lines:-

## "Sabrina fair,

Listen where thou art sitting
Under the glaney, cool, translucent wave,
In twisted braide of Lilies knitting,
The love-train of thy amber dropping hair,
Listen for dear honour's nake.
Goddens of the nilver lake,
Listen and asve."
In conclution, I should like to may a word in favour of the variety of attractions other than thome which are provided in the horticaltaral portion of the Qaarry ground for the paying pablic by the comIuittee of the Shropshire Horticaltural Society, and to which ome well-meaning people object. Fur my own part-and I have attended the Shrewabury Show pretty regularly in the capacity of jadge during the lat eight or ten years-I candidis sdait that I see nothing to object to in the practice of drawing together 40,000 or 50000 people to a flower ahor by other attraccions than thoee provided in the exhibition tente, if these are of an innocent and high-class description. On the contrary, I think, from every point of view, much good realta therefrom, and the Society in accordingly entitled to the thank not only of horticulturiats but of the general public as well, for the good which it has
done and is doing by offering liberal prize to be competed for annually, in promotisg a atandard of high cultaral skill among gardeners, amatear, and cottagers in the caltivation of plants, flowers, fruits, and vegetables, and also in promoting a love for the same subjects among the thousand of people from mining and other popalous districts, who are indaced to visit the how more from a deaire to see the variety of attractions than from any wish to see the horticaltural exhibits. These visitors, however, evince great interest in inspecting the inmates of the numerous tents, and in that way a love for and a wish to grow and tend to the requiremente of plants, flowers, \&c., is excited, perhaps for the first time, in their minds. Hence, the end more than justities the meang. Moreover, it is quite certain that were the acrobatic and aimilar attractions omitted from the Society' programme, there would be a great falling off in the annual receipts, and therefore the Sbropshire Horticultaral Society woald not be able to continue the gifte to local charities which it has hitherto contributed with auch liberality. $H . W . W$.

## Nurbery Notes

## MESSRS. LITTLE AND BALLANTYNE, CARLISLE.

As in the case of some other old firms, ownership is no longer indicated by the title of this one. The present proprietor is Mr, James Watt, by whose knowledge and energy an originally large basiness has been ntill further developed. An extensive seed trade is conducted, and beyond thil Mr. Watte is known as a farmer and atock-breeder, both in East Lothian and Camberland. The nursery at Knowefield lien on the outskirts of the ancient city of Carlisle, and contains, in addition to the enormons atock of forent trees, an interesting variety of plants of horticultural valus. Treen and shrabs, indeed all thing* pertaining to ornacoent, are grown extenaively, and the firm does a large export trade. I was struck with the posaibilities of some hardy subjects seen here in lending brilliant colour and beauty of form to the garden for which too exclusively we tarn to tender planta, requiring annual propagation and artificial heat in winter, Populus argentea, I believe a variety of P . alba, was such an one. It was planted in lines, and every individual treated as a kind of pollard by cutting it back to near the ground each year - the white foliage way decidedly ornamentel; and in contrast we obwerved the rich coloration of Acer Schwedleri, or similar red-leaved variety, the plants being treated in precisely the same manner. This idea of atilising hardy trees for the purpose of "aubtropical effect in gardening may easily be carried further. It is not generally known, for inatance, that the a atamn tints of Quercas coccinea may be used for dwarf arrangemeuts by cutting back every vear; and for handmome leaven, hardly any plant can beat Paulownis imperialis, which, if growia with aingle shoots, produces leavez 2 feet acrose each way, the shoot themselvea reaching a height of about 9 feet.

The extent of ground cultirated is nearly 200 acres, and one cannot but notice the general arrangement which seems so perfect that it would be easy, without a plan, to locate the position of every crop or particular tree. Some of the crop are exceptional in extent, and the damage done to certain kind during the past winter is suggestive of anxiety in the management of wach a concern. There is, however, the compensating advantage that plants grown here will be hardy enough for almont any district in Britain. The hardy Conifer do well, snd are trented an a specialty. Among the new kinds, a variety of the Scotel Fir, Pinas aylventris pyramidalis, is moss atriking. It has verg upright branchew, and thus emulate the habit of the Irish Yew. This, I believe, originated from seed, and, if true, it is curious that such a habit originste from seed, while the weeping habit as often originates as a bud-sport from an ordinary tree or ahrab. Record.
upon this matter would in any case ponsess interest, Among the golden Conisera Thaya occidentalin an ea was very fine, and certainly it in one of the bent. Thujopsis dolabrata does well, and therefore cold is not the something inimical which prevent it doing well in places further south. Arong apeci. men trees Pseudolarix Kæmpferi was thowing well its fine ornamental character
An interesting Conifer is Pinua Peace, which in mouth-eastern Europe represents the magaificm Pinus excelas of the Himalayas. It is demer in habit, more conical, and has aborter leaves than that species. Perbaps the most intereating of the Pinem noted was Pinus Balfouriana, of which there in bandsome tree. Ia Veitch's Manual of Conifom Plants it is said that its merits as a decorative tre have yet to be proved; aud it is of interest to remurt that this specimen was decidedly ornamental, and tufter foliage, which has origioated the namera. tail Pine, was clearly noticed. The brashet, houre, are amall.

There was a new Holly of the Hodgiasil thp called Golden King, and likely to prove an acquiition for association with its well-known conath, Silver Qaeen. As a pretty curionity, we may meation Fagus aglvatica tricolor which originated here, and has dintinct rosy colour, especially about the margina It looks like a sport from the Copper Beech, but I was not informed of its origin. Among trees of coppery tint, Betula purporea is looked apon with great favour, it being of first-rate colour. Ulmu corylifolia rubra, which should be valuable from the same point of view, was also noticed. The tre seemed to be of vigorous growth and richer in colour than the Copper Beech. Quercus robar nigre is another useful nubject in tree combination. From grave to gay, I may turn to the Rowes, which an extensively grown in all section. Reference to th houses must be brief. They contain mont plase for which there is a demand, or intereth. saw, for instance, some of the finer-gromig Conifers under glan: this method of cultur seemed to develop their beanty, and, in one or tm cases, entirely alter the out-door character of this species. $L$.

## Orghid Notes and Gleanimas

## I.ELTO CATTLEYA $\times$ BRYMERIANA (L.O $\times$ AMANDA $+\times$ C. WARSCEWICZII.

A noble inflorescence of this fine hybrid in received from Mr. Jobn Powell, gr. to W. E. Brymer, Biqn M.P., Itsington House, near Dorchenter, where the plant was raised some years ago, and where it is nol flowering for the foarth time. The rape is atcont over 1 foot in height, bearing on the apper half foo flowers on a salk, 3 inches in length. The foret in form is nearest to $\mathrm{L} . \cdot \mathrm{C} . \times$ Amanda, and in sise and colour to C. Waracewiczii (gigas). The flowen meawre 7 inches acroas; sepals and petals of bright ronj-lilac colour. Tae lip is alightiy theno lobed, and also of a ruay-lilac tint, with a bename veining of bright parple, fading off to lilac tomat the crimped margin. When matare and wim waning, the flowern ansume a decidedly blue which cansea it to appear different than is earlier atages. J. $O^{\prime} B$.

Prculiaritirs of Growth in Orcirps.
Whether it is that growern take more notict a strange growth and abnormal flower-production then formerly, or whether the lat hard winter has bean aid cause of more unusual growths in Orchids or met know not; but of late I have had many atrange met of mens aent, and questions asked as to the nint to th the abnormal pruduction. All seem to poing fact that it is difficult to define arbitrarily whas of is or what may not take place in growin the lem flower, and the more experience I obsaip inclined do I become to sBy "alway" or probitit to any feature in any plant, and eapecially an mbien Writing from Liverpool recently on this an
is producing a growth on the side of a pseadobulb, and Lycaste Skinneri with a new growth on the top of an old peeado-bulb. There appeare in the September number of The Orchid Review, middle of P. 268, referring to Catcleys labiata, 'Pseado-balbe clavate, alwaye monophyllous.' I recently parchased a plant of Cattleya labiata autumnalis, of which the following is a description. 13albs five, all of the stout, club-ihaped type, each about 7 inchen long. This year's growth is monophyllous, and bear the naual double flower-nheath. Last year's was nimilar, bat I was told that the sheath was abortive. Then come two diphyllous bulbs, both of which mpparently produced flowers, and then the first (or last) is again monophyllous. The diphyllouv bulbi are like the others, bat their leaves are horter, wider, and very thick. Perhaps some other correspondente may be able to remark on these interesting abjects."
false trade description. Mr. Tristram, for the Trades Mart Protection Areociation, prosecuted, and Mr. H. D. M. Pago defended.
Mr. Page eaid it would be now his duty to place before the magistrates his clients' defence. He took it the charge was in three heads; that there was a deacription siven wo the article sold. That the defendanter description wan false, and the faleity was in naming it shephard's Kale. The Act provided that any perzon who applied any fal-e trade description to goods, should be subject to the provisions of the Act, unless he proved that he actad without intent to defraud. A further section provided that any person who told any gorde or anything to which a falte trade description was applied, must prove that having taken all reasonable precaution against committing an offences against the Act, he had at the time of the alleged offence no reason to suspect the geauineness of the trade description. The definition given of "trade description" in the Act was as follows:-The expression "trade description" means any description taken or indication direct or indirect as to the mode of producing any goods. Mr. Page went on to deal at leagth with the $A c s$, and contended that they did not come within the definition at all. In the first place the Shephard's seed was only a variety of a aeed commonly called Kale. It was not produced by Mr. Shephard-he simply sowed the

It conteined no implication an to who grew the seed, elthough it applied to the firat introducer. They frequently bought back seeds from farmers from their own atook. Queetiono were then put as to the custom of the trade, but Mr. Triatram objected, as custom of the Trade could not override an Act of Purliament. Continuing, witneas arid he had perer heard any objection raised by a person whose pame the seed beam to the sele of seed, though not grown hy him. Part of the seed "hich was bought ifom Mr. Eidney wan mold to Mr. Harry Waters, the steward to Lord Lawrence. Siace the caso wai previously before the court be had germinated some of the seed saved by Mr, Payne from the complafnant with perfect result.
At this atage the court adjourned.
On renuming, the crose-eramination of the witnens was pro. coeded with.-In anewer to Mr. Tritram, Mr. Toogood mid be could show no catalogue of any other frm which contained mention of his seedes he would mot swear that be had ever neen one. The adrocato next proceeded to catochise the witnens in seferenoe to firms in the South of England, and as to whet her Shephard's Kule was mentioned in them. An adrestimment Was putin, in which it was atated that ell neede were grown by the firm; the witness explained that all needs bearing their


Fig. 63 -cross-horder.


Fif. 64.-Wbeath-holder.


Fig. 65,-shower bocquet holder.

New Inventions.
TU DISPLAY SHOWER BOUQUETS.
With a view to mimplifying thi operation, a holder or stand, the application of which in illustrated in figm. 63, 64, 65, hat been denigned and may be obtained from Meart. Oaman \& Co., 132, Commercial Street, London. Tbis patent bouquet, wreath, and cross bolder, intended for the use of florist and exhibitor, is made in brass, either folished or nickel-plated. The illantration well ahow the appliance, but we may add that the holder is trampet-ahaped, aplit, and faraished with a sliding ring, and can be expanded or contracted, or set to any magle by means of thumb-acrewa. The trampet-holder may be removed, and a hook abstitused in the case of wreathe or similar devignt. Tbe atem is telescopic, and it length in regulated by a set-screw.

## Law Notes.

## SHEPHARD $\mathbb{T}$. TOOGOOD \& SONS.

This canf, of which a brief notice wan taken from the Times, and published in these colnmas on Auguat 24, was resumed on Thursday, September 12.
At the Southampton Police Court, before Mr. G. P. Perrins aud other magistrates, Messra. Toogood Suns, inedamen, of Above Bar, were summoned for selling \$hephard's Kale by a
seed, and Nalure did the rent. Then he contended it was not false trade descrip:ion, inasmuch as it was not calculated to leceive and mislead any one as to the nature of the goods sold. Mr. Page went on to mention the witnengey he proposed to call. They included, he said, some of the best growers in the country, to whom the question was of immense importance. He also went on to contend that it was recogoised that after a seed had been placed on the market avyone was able to sell the seed, provided ho sold it by the name which had been given it. He went on to quote instances of this, and contended that the seed which was being grown by Mr. Edney was absolutely true to stock. Going on to deal with the complainant's evidence, he said the magistrates at tho last hearing must hare been struck with the very unsatisfactory way in which $h$ have bis soidence For an intligent man to stand before Rave his eridence. For an intached a meaning to shephard's Kale he could attach no meaning to Sangster's A 1 Peas was, Kale he could attach no meaning to Sangster's A 1 Peas was,
he considered, rather strainiog the credulity of the Court. He had aseumed a very strong bias, and then he had not called a single witness from the crade to support him. It was also absolute nonsense to talk about a secret process in producing the seed-it was preposterous.

The first witness called was Mr. William George Toogood. Ho said he was in partnership with his brother as soedsmen. He had had nineteen years' experience in the trade. The seed he had sold, which was now in question, was bought of M.r. Edney of Dean in March of this year. He told witness be ader perfly true in every had gone through the Kale, and it was perfectiy true in every way. The general practice of growers wad to sow vanetice of seeds in trial-grounds. In watching growth in the trialgrounde it was noticed varietiee vary, and if they noticed anythiug they approved of they selected that specimen. They sowed, and renowed the seed year by year until they considered the variety fixed. Then theseed was given a name-in many cases they preferred to give their own; it was then pleced in the catalogue and sent to farmurs and growers generilly. The name of a person attached to a seed simply indicated its Triety; there was no other inference to be drawa irom ito
nor did he know enyone who did. This whe the first year his firm had sold shephard'a Kale, and he mentioned other firm Who sold the Kale, He could not mell the article as Kale because there were about twenty-five varieties of Kale, and a farmer, when buging, would want 10 know what sort it wan. Alderman Rogers agreed with the witness, and said they must give some indication of what sort of Kale waa wanted.

Witnees would swear he had never sold Shephard's Kale by ay other name. He had once sent a packet with "Kale grown from Shephard's stock" on it, probably becavse the entleman ordered it such.
Mr. Tristrams said he had no objection to its beiag told in that way.
Crost-examination continued: Mr. Shephard had eaid he ought not to sell his Kale, but he said he had a right to do so. He bought the Kale from. Mr. Edney as Shepharo's Kale.
Re-eramined: In the firm's catalogue, a number of aeads were named with other people's names. It was a fact that bo employed farmers largely to grow seedis for him under his supervision. Shephard' Kale whe not known univerenlys it wha a purely local grow th. It wat not in other antmianne ar that account.
Mr. John Gater was next anlled. He mid he wae a farmor of Weat End, and a buyer of aeod. Noot of the varieties of seods bore the name of an individual, but tbe use of that mome was not indicative of who grew the seed in queation. II he wat sold a parcel of thephard' Kule, he thoukd not expect chey were grown by Mr. shephand.
Mr. WLliam James Vuttiag, of the firm of Mesers. Nutting A Som, Southwark Street, London, said varieties of seedm with personal name were generally quoted in all cataloguea. A catalogue of Mesarn. Hurst was produced with an entry of Nutting 's selected dark red Beet, and he said hia firm bad not supplied it direct. A man's particular seed should be sold under his name, though it need not necessarily be produced by him. The use of the personal name wall no indiration of who grew the seed under offer. It whe not his exporionce that seed grown by a pernon other than the introducer would
produce bad stock. He did not know any secret mode of producing seed.
Mr. Thomas Arthur Newby, manager to Mesars. Harat, of Houndsditch, said in reference to one of their Swedes, Hurst's Monarch, it cost $\$ 500$ to bring
was quoted in other catalogues.
Mr. J. F. Edney, a farmer of West Titherley, gave evidence to having bought seed from Mr. Shephard of the variety in question. He sold the seed, and saved some, and produced from it. Some of this he sold to Mr. Toogood as Kale seed. It was, in fact, Shephard's Kale seed.
Mr. Page intimated that he had other witnesses, but would rot call them, and the magistrates retired to consider their decision at ten minutes past four. Sir minutes later the Chairman said the magistrates were unanimous in dismissing the summons with costa, after having considered the matter very fully.
In answer to Mr. Page, the Chairman said they meant the whole of the costr, but these being left to the Court, they Mr. Tristram applied for leave to state a oase, which was granted.

## SOCIETIES.

## BATTLE HORTICULTURAL.

September 4.-Favoured by magnificent weather and a picturenque location, the annual show of the Battle Floral and Horticultural Society was a great anccess. Most pontponed events suffer, bat though pat off a week on account of the Hantings Carnival, the indefatigable Hon. Sec. and committee must be heartily congratalated on the display made in the three large marquees provided, inclading over 1000 entries.
Potatos were prosent in profusion, and were almost without exception of very high quality. Onions were, as al
rule, deficient in finish, but root crops were clean and good all rule, de
In the first division, Mr. T. Portnell, gr. to Sir Archibald Lumb, Bt., was well to the fore for gix stove and greenhoase plants; and he had also six very clean and good foliage plants. Begonias were not good, and Fuchaias, with the exception of one lot, were badly bloomed. Zonal Pelargoniums were fairly well shown, but they are not ejual to the heavily-flowered apecimens one meets with on the $\mathbf{F}$. and 8. E. coasts. Altogether, the plants in divisions 1 and 2 were not so good or so
numerous as in past years. Cat flowers were in plentr, but if numerous as in past years. Cat flowers were in plentr, but if
we except the stove and greenhouse blooms staged by Mr. T. Portnell, and the decorative Dahlias of Mr. Stredwrck, they were not worthy of special notice. Roses were good and bright for so late a season, Mr. T. Durrant Young, Eastbourne, making the beat show; While the amateur honours fell to Mr. H. Foster. of Ashford, in both divisions. Gladiolus d.CHIVERS, st. Leonards, won for Phlox Drummondi.

Fruit was in grand condition, and the eatries were numerous. Mr. W. Allan, gr. to Lord Brassex, took both lst prizes for a collection of eight dishes, given by Col. Hankex, Beaulien, as well as a thoroughly well-deserved 1st, for three bunches of Muscat of Alexandria Grapes and three bunches of Black Hawiburghs. Three bunches of Black Bamburgh Grapes, thown by an amateur, W. C. Raper, Esq, were perfection in aize, colour, and finieh; while market grower, Mr. Y. Gore, secured a good ist for three bunches of Gros Maroc.
Melons were numerous, but a trifle over-ripe. Mr. Portrell secured lst prize with Blenheim Orange.
Ia Apploe, Mr. W. Allier took list. with lady sudeley (dessert variety), and Peaugood's Nonsuch (eulinary), both of which ware handsome dishes.
The mont tempting fenture in the frait classes was, however, the Plums, which were highly coloured and finished;
indeed, I have rarely seen Gages so good. lat, Mr. E. P. indeed, I have rarely seen Gages so good. lat, Mr. E. P.
Edwards, gr. to the Hon. F. A. Brassey; 2nd, Mr. T. Ed wards, ${ }^{\text {gr. }}$ to the Hon. F. A. Brassey; 2nd, Mr. T.
Portakli; 3rd, Mr. Gower, gr. to Mrw. Lawreace. Whilo nin amataur, B. H. Thonpe, Eleq., took let with Tranaparent olam with Pond'u Eeeding, all crown on open wall, and perfeet in colour and fraish.
Local and othor floriate made a good display in planta, Ferns, and cut flowersof hardy porennials. Twogroups arranged by Mr. Hollands and Mr. Charlitor respectively, of Tunnovelties, the former showing good Ferns and Caladiums, novelte some pans of the pretty sibthorpia europeaa variegata, were conspicuoualy well-coloured and healthy. Mr. CHARL TUN had a hybrid Statice (latifolia $x$ incana) of elegant habit, with small blue flowers, most useful for cutting; some good hybrid Montbretias and Rudbeckia tomentosa. T. Bunyard.

## ROYAL CAIEDONIAN HORTICULTURAL.

Sircmank 11, 12.-The autamy show of this Society was held in the Waverley Market, Ediaburgh, on the above daten. Probably few more auccenaful thow: have been held under the auspices of
the Society. The number of entries was over 2100 , and of thene the majority were good in quality. Frait and cut flowern embraced tho mont claves, and particalarly in thowe devoted to Graper and Applen, the
entries were very numeron, and the exhibits remarkably good. The collections of Gladiolus and taberous Begoniaw were brilliant in colour, the former never having been aeen in finer condition in Edinburgh. In the vegetable clanes, the competition was generally keen. Nurserymen from all parts were present, and their exhibits did much to give the place an additional gay and furnished appearance.

## Plants.

The plants arranged for effect upon tab'es were deserving of praise. That arranged by the winner of the lst prize and
Turner Memorial Cup, Mr. G. Wood, gro, Oswald House, Turner Memorial Cup, Mr. G. Wood, gro, Oswald House,
Edinburgh, was an excellent arrangement. Upon his table were noted Oncidium incurvum, Odontogloseunas, grasses, Palm, Crotons, and other decorative plants and Ferns. The 2nd prize went to Mr. J. Mc
In the class for four stove and greenhouse plants in flower, the plants were small generally. Mr. J. McIntyre was 1st, and included plants of Lapageria rosea and Statice profusa; 2nd, Mr. W. BENMETT, Corstorphine. Mr. W. McMurtrie, gr. to Sir Ed. Colebrooke, Bart., Abington House, was lst for a single specimen stove o
flowered Statice profuss,
flowered Statice profusa,
Orchids were few, and the plants gonerally small. For four Arundel House, Dumfries, toon lit prize with Odontoglossum grande, O. Harryanum, Cattleya Dowiana, and C. Eldorado; Mr. W. Hutchinson, Balmedie, Aberdeen, was a close 2nd, with Dendrobium Phalænopsis, Disa grandifora, Cypripedium Spicerianum, and Cattleya Dowiana. A magnificent plant of Oncidium incurvum, with more than twenty spikes of expanded flowers, from M
In the class for Cypripediums, Mr. W. SHanP was 1st, with good plants of C. Schroderianam, C. Harrisianum superbam, and C. cenanthum superbum.
For foliage plants, Ms. T. LunT, Keir Gardens, Dunblane, took the premier position with splendidly-grown plants, Ciseus disco'or, Alocasia metallica, Anthurium crystallinum were especially good. Mr. A. Urquilart. Liberton, was 2nd, with smaller but creditable plants. The best Crotons in the class for two came from Mr. T. Lunt; 2nd, Mr. J. MoLrtyre, Darlington. Table plants were numerous, and lined the raised centres of the fruit tables. Mr. M. McIntyre, gr. to Sir O. Tewnswt, The Glen, Innerioithen, taking lat prize.
Tuberous Begonias were generally good, those coming from Mr. A. R. Hendereon, gr. to W. Micfie, Rsq.. Clermiston, baing far beyond the rest in quality and size of bloom. Is the elase for nix, Mr. D. ADAMS, Duddingston Cottage, was 2ad. Mr. A. Brypon, Tweedbank, Innerleithen, was 1st for a specimen double Begonis, exhibiting a deep salmon-coloured Farietg.
Fuchsias were good. Mr. A. Pryce, Newington House, was 1st for two; and Mr. W. Attken for a single specimen.
Pelargoniums creating a blaze of colour, Liliums and other flowering plants occupied considerable space, the early-flowered Chrysanthemums being fiirly numerous.

## Ferns.

The prizes for Ferns were well competed for, as ukull. Mr. Napier, gro to P. N. Fraser, Eeq. Murrayfield, was a saccessful exhibitor in the larger classes Mr. A. Urqueart, Southfield, Liberton, being 2ad to that exbibitor for four diatinct exotic kinds. Mr. NAPIER and Mr. J. Nairn, Craigcrook, took 1st and 2nd places for four Adiantums, both exhibiting good plants. With a splendid A Ciantum Farlegense, Mr. D. McMurtrie, Abington House, was 1st. Mr. Nıpier was succeasful in the class for nine distinct British Ferns, the classes for these being well contested.

## Cut Flowers.

Tho fine apires of Gladiolus staged by Mr. Smite, Prestwick, were the admiration of all, his blooms were of large size and very brilliant in colour. This exhibitor was lst in the classes for twelve, and for six spikes. Hollyhocks were well shown by Mr. A. Oliver, gr., Cresswell Hall, Morpeth, who was lat for twelve magnificent blooms, and also for five spikes. Judging from the number of Dahlias of all sections shown the season han beon suitable for them. The 1st prize for twelve show blooms was gained by Mr. W. Craig, Duns, for a very even lot of heavy subatance and perfect thape; followed by Mr. W. Veitci, of Carlisle, the latter taking let place for six show bloome, and also in the class for twelve fancy bloom?
The best Dahlias in the class for six trusses, single blooms, came from Mr. J. PEARsox. Murrayfield, who also secured 1st place for dix bunches of single Cactus Dablia blooms.
Sweet Peas were shown in abundance and great variety. In the clase for six bunches, Mr. A. Berpor, Innerleithen, was Ist.
For twelve trusee of stove or greenhouse flowers, Mr. W. SHarp, Forgandenny, and Mr. M. MaImtybe, The Glen, Innerleithen, took 1st and and places respectively.
Carnations and Picotses, Pansies and Violas, brought many entries, and the winaing lots were of first-class quality.
Chrysanthemums in bunches and single flowers were fairly good. Mr. J. Napter being let in the bunched claws, aud Mr. 4. Brypon securing that position in the cluses for the twelve and ais varieties.
Mr. Low. Dundee, was ist for well-arranged hand bouquets among fifteon sompetitorn.
Roses.-The exhibits in these clanes required a considorable epace, and were in most case3 good. The best twenty four distinct varieties were from Mr. W. Harper gr. to J. Rrchindson,
Esq.o Parth, conspicuous apon his board wore Ulrich Brunner
R. Jacobs, A. K. Williams, Grace Darling, General Jaoquaminot, and Cloire de Margottin ; Mr. W. Parlane, Romiee,
2nd. In the class for twelve blooma, there were secenten entries, Mr. J. Hood, Helensburgh, securing 1st place Tes Roses were numerous also, and the classes devoted to separate rarieties brought some good blooms. In the clames for is blooms, each of Charles Lefebrre and La: Tranoe, Mr. Hood Herba
Herbaceous Cut Blooms, -The class for twelve barejee od herbaceous flowers had numerous entries, and Mr. J. Murku,
Bridge of Weir, was placed 1 st for a fine selection.

## Frut.

Ninety-six classes were devoted to fruit, and as there were a great number of entries in some of the clasess, the gnod display may be easily inagined. The prizes for the colloction of twelve dishes of fruit, exclusive of Pines and Baname prosented
competitors, the list prize going to Mr.W. SMrTH, gr.. Ovem competitors, the lst prize going to Mr. W. Smrit, gr.. Oxem fruits of very exceptional quality; the 2ad prize was gaind by Mr. J. Hunter, gr.. Lambton Castle; while Mr. D. eight dishes also contained some excellent fruit Hunter was 1st, and Mr. W. Smity 2nd. For twelve didian of hardy frait, grown out-of-doors, Mr. S. T. Wrigirl, of Hereford, was 1st, and Me. J. DAY, Garlieston, 2nd. Mf, J. Hunter carried off the lst prize for twelve dishes of orchand house fruits (Grapse excluded).
The best sir buaches of Grapes, three varieties, came from BuCHAYAY, Kippen, who also staged some by Massa, D. \& W. For two bunches of Muscat of Alexandria, Mr. D. Kidd, Car. berry Towers, was lst, with well-fiaished fruit. The lst priza for two bunches of Black Haraburgh Grapes went to Mr. J. Potter, Cumberland; 2nd, Mr. J. Menzies, Larbert, both of whose exhibits were very fine. There were eight competitern
in this class. An enormous bunch of Black Alicante Grapes with fine terries, well finished, and carrging a good bloom, secured Mr. T. Boyd, gro, Callender Parly, Falkirk, the lit place, the bunch weighing about 10 lb . Mr. T. Boyd was aleo lat for one bunch of Laty Downe's, and was followed by M. t. Lunt.

Mr. M. McIntyre, Inaerleithen, was 1st in the clase for one bunch of Grapes with fiaest bloom, showing Oooper's Black. Mr. T. Boyd was lat for a Queen Pineapple of not lem than 3 l lb . weight ; 2nd, Mr. McIntyre, who carried off the priz for any other variety not less than 5 lb . in weight, with a good smooth Cayenne. For the best green-fleshed Melon, Mr. T. Boyd was lst with a medium-sized fruit. Mr. J. Morrisor. gro, Archerfield, secured lat place both for twelve Peaches and for the same number of Figto
Apples required the space affo ded by several tables. Mr. S. T. Wright, Hereford, being the most succasaful exhibtion, taking fourteen lat prizes out of the thirty-three classes. The fruit was, gonerally speaking, large. though hardiy rips.
Peus were not so numerously $h$ hwn as Applea, but nowe very fine fruit was staged. Mr. J. Gibsox, Chiswiek, and Mr. S. T. Wrient, sharing many of the prizes between thm. Some very fine red and white Curran'a were staged, add the entries for these classes were numerous.

## egetables.

Of the five competitors who staged collections, Mr. J. Ginsor, Devonhurst, Chiswick, was 1st, and was awarded the Xedi of the Veitch Memorial Trustees. Mr. B. RAE came 2 ed with creditable collection.
For two Cucumbers, Mr. P. MaIn, Polmont, wam ist, alico for twelve Tomatoo. Cauliflowers were best shown by kr, J. Lorraine, Lasowade. Mr. J. Cossar, Dunbar, stagod the best twelve rarieties of Potatos. Parsnips, Turaips, an Onions brought a large number of competitors. Indoedted.
clasee for vegetables all round were most eagerly conterta

## Nurserymen's Classes.

Messrn. R. B. Laikp \& Eons, Messrs. Diotsor © Co, of Edinburgh, and Measrs. J. \& B. Thymne ware the ony exhibitors of plants, the formar securiag three lat and pirsen 2ad prizes out of the six classes. For thirty Gladiolas single
 2nd. Out ot the thirween classes for cut Rose3, Mosera, sh Cooker \& Sons, Aberdeen, took ton 1ut prizes, ineludiag claseos for thirty-six and eighteen. Messrs. T. SMITH $\&$ nwion Stanraer, are to be commended for their stand of buifuat which took the lat place, upon which some madeo wow also sums were noted. Messrs. D. a W. Cromicizes for tradme also successiul Rose exhibitors, taking $19 t$ prizes of chate
blooms of Merveille de Lyon, and for twotve blooms blooms of Merveille de Lyou, and for twalve Clarysanthemet Lefebvre. For twenty-four trusses of Chrysanthem Mesars. Dickson \& Co. Were sucsesful;
and Picoteos, Mr. W. CampBell was lot.
Miscellaneous Exiibits were numerous. Mesars. B. B. LATRD \& SoN arranged a pretty table of stove and greomes plants. Messrs. Metaven \& Son were conspicaont Begonias, Clematis, Liliumas, and other flowaring pham fine table of highly-coleured foliage plants came frow macian J. \& R. Thymer, of Glasgow, which were very mired. The tables of Ferns. including relief after the biaze of cut flowers, and Mesars. BiBIESHID \& Sor are to be congratulated upon the good drs. J. Herbaceous and floriste' flowers came from Mesirs, \& Sons, from Mesars. Dobbie \& Co., and Mesers
son, Rothesay, the tables of each being centros of attur in grin



A very tempting table of Grapes, arranged with coloured Vine foliage, came from Mesers. D. \& W. BCCEINAN, Forth rinegards, near Stirling, and was much admired.
Many other exhibita received their full share of attention from the large number of visitors who were present at all tiveso during the hours when the exhibition was accessible to the public.

## FUNGUS FORAY AT HUDDERSFIELD:

llundrrafield was selected by the mpcological ection of the Yorkbire Nataraliata' Uaion as the hearquarters of the 1895 Fungus Foray. On Saturday, Monday, and Tuenday, September 7, 9 and 10, a serce: of meetinge and excursions were held. The chief object of the meetinge was the inventigation of the wooda and paature in the neighbourhood of Hudderatield for fangi.
The party included Dr. M. C. Cooke, M.A., A.L.S., of London; Mr. George Masee, F.R.M.S., F.L.S., of the Royal Rerberium, Kew; Mr. Carleton Rea, M.A., B.C.L., of Worcester; the Rev. W. Fowler, M.A., Liversedge; A. Clarke and J. Suteljff, of Huddersfield; A. Bairstow, C. Crossland (hon. sec.). H. T. Soppett, J. W. Sutcliffe, of Halifax ; and J. Needham, of Hebjon Bridge. Satarday's excureion was to West Wood, Honloy, and Storthea Fiall Wood, under the leadership of Mr. A. Clarke. Although fungi were acarce objocts, a few interesting specimens were found. Fixby woods and pastures, the hunting ground of James Bolton, a famous Halifax botanist, one of the pioneers of the study of English fungi, and who flourished during the latter part of last century, were al:o vivited, and here also a few interesting species were found.
Monday's excarsion wat by train to Hebden Bridge, thence by convegance to the delightial woods of the Hebjen Valley. This was under the leadership of Mr. James Needham and the secretary. As in the previous oxcursions, fungi were by no moans plontiful, but amongst those collected were two good finda, viz., Paxillus paradozus and Boletus nanus, which hitnerto had not been found in West Yorkshire. The specimens collected in the aggregate amounted to upwards of 200 different kinds, among which were many interesting forms.
Meetings were teld each eveninge at the Y.M.O.A. rooms, t which place the specimens collected were determined and placed on exhibition. Consignments of fungi were sent in by the neighbouring societies from their respective districts. Not the least interesting part of the programme were the lectures delivered by Mr. Maseee, on the Saturday and Monday eveningo, which were illustrated, by well-prepared lantern slides, showing the structure and development of a variety of fungi that are deptructive to cultivated plants, and methods were deacribed for checking their devastations.

## Trade Notice.

MK. JAS. GRIEVE.
Many readern of the Gardeners' Chronicle will be pleased to learn that Mr. Jame Grieve, for many jeara nareery manager to Mesers. Dickson \& Co., Edinbargh (who have been compelled to remove their whole nureery basines to Liberton, owing to a large portion of their ground being required for railway purposes), has retained part of the Redbraes Narsery, where he will, in company with two of his mon, carry on a general nursery and florist business, nuder the name of James Grieve \& Sons. It in Mr. Grieve's intention to devote a large proportion of his time to hardy florist's flowera, with the raising of to many of which, enpecially Pantien and Violae, his name is so intimately connected.

## Obituary.

James Harris. - We regret to hear of the denth of Mr. Jamen Harris, which took place on Auguat 29, after a short and severe illness, at the Gardens, Torrance Cantle, East Kilbride, Lanarkahire, the residence of Colonel Harringion Stewart. Mr. Harria was well known as a good Rose grower, a clas of plants he took a great interent in, and of tuberona-rooted Begonias, of which he had got rogether one of the finent collections in the went of Scotland. The deceased was in his fifty-ninth year, and leaver a fridow, one daughter, and eight mons, to rooura his loss. I may mention the fact that two of his wons hold responsible positions, one at Carator of the Chincons Botanic Garden, Jamaica, and aoother as chief of the Orchid department of Mesers. J. Veitch' Narsery at Chelsea. W. Camm.

Dictionnaire Patatique d'Horticulture." -This has now reached its fortieth part, down to the lettere Mu. We have mo often spoken in appreciative terms of this publication, that we need not repeat what we have said, bat congratulate M. Mottiep on the regular progress of his laborious andertaking. The pablither is 0 . Dons, 8 , Place de l'Odeon, Paria,

## The Weather.

The term "acoumulated temperature" indicatoe the aggregate amount, so well as the duration, of degreos of temperature above or below ty Pahr. for the pariod degrees - a "Day-degree" rignaifying io continued for twenty-four hours, or any other number of degrece for an inversely proportional number of hours.]

|  | Temperaturi. |  |  |  |  | BuITYALh. |  |  | $\begin{gathered} \text { BRXGET } \\ \text { SUN. } \end{gathered}$ |  |
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|  | $9$ | AOOUKULATED. |  |  |  |  |  |  |  | $1$ |
|  |  | $\begin{gathered} \text { Above } 42^{\circ}, \text { for the } \\ \text { Weok. } \end{gathered}$ |  |  |  |  |  | $\begin{aligned} & \text { gi } \\ & 8 \\ & \frac{0}{6} \\ & \frac{2}{c} \\ & \frac{1}{4} \\ & \frac{3}{6} \\ & 0 \end{aligned}$ |  |  |
|  |  | Daydeg. | Day deg. | Dey- $\operatorname{deg}$ | Daydeg. | 10the Inch. |  | In |  |  |
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| 1 | $3+$ | 99 | 0 | + 39 | + 413 | 4 | 133 | $20 \cdot 2$ | 39 | 35 |
| 9 | $3+$ | 111 | 0 | + 185 | + 275 | 5 - | 132 | $10^{\circ} 0$ | 48 | 34 |
| 3 | $2+$ | 116 | 0 | + 131 | + 283 | 5 | 112 | 16.9 | 58 | 11 |
| 4 | $3+$ | 116 | 0 | $+140$ | + 371 | 1 - | 108 | $16 \cdot 1$ | 13 | 38 |
| 5 | $3+$ | 132 | 0 | + 60 | + 838 | 1 - | 102 | $14 \cdot 7$ | 88 | 42 |
| 6 | $4+$ | 108 | 0 | + 118 | +384 | 4 - | 139 | $23 \cdot 6$ | 40 | 33 |
| 7 | $3+$ | 118 | 0 | $+144$ | +303 | 7 | 121 | $20 \cdot 5$ | 35 | 36 |
| 8 | $3+$ | 124 | 0 | + 77 | + 337 | 7 - | 110 | $20 \%$ | 54 | 4 |
| 9 | $3+$ | 108 | 0 | + 49 | + 268 | $3-$ | 152 | 23.0 | 22 | 31 |
| 10 | $2+$ | 108 | 0 | 23 | + 105 | 7 | 128 | 34.2 | 40 | 34 |
| - | $3+$ | 144 | 0 | + 113 | + 248 | 5 - | 124 | 16.7 | 60 | 51 |

The districts indiosted by number in the firnt column are the following:-

0, Scotland, N. Primcipal Wheat-producing Districts1. Scotland, E.; 2, England, N.E.; 3, England, E. 8 . Principal Grazing, \&c., Districts- 8 , Scotland, W England, N.W. 8, England, S.W.; 9. Ireland, N. 10, Iroland. S.: Whannel Ilande.

## THIPASTWEEE

Ten following summary record of the weather throughout the British Islands for the week ending September 14, is furnished from the Meteorological Office:-
"The weather, as a whole, was again fine and dry over the greater part of the Kiagdom, although rain was experienced in nearly all places on the loth or 11 th. In the exrreme north of Scotland the conditions remained unsettled, and rain fell almoet daily. Severe thunderstorms occurred in some parts of Scotland on the 9 th.

- The temperature again exceeded the mean, the excess ranging from $2^{\circ}$ in "England, E, and Ireland, 8." to $4^{\circ}$ in ' Scotland. W:' The highest of the maxima were recorded on the 9th, when the thermometer rose to $87^{\circ}$ in "England, S.W.' (at Llandovery), $88^{\circ}$ in the "Channel Islandn,' $84^{\circ}$ in S.W.' (at Llandovery), $88^{\circ}$ in the "Channel Ialande' $84^{\circ}$ in "England, N.W." $83^{\circ}$ in "England, S." and to $82^{\circ}$ in the 'Midland Counties.' The lowest of the minima, which occurred on the 13th, ranged from $37^{\circ}$ in the "Midland
Counties," and $38^{\circ}$ in "England, 8 . to $45^{\circ}$ in "Scotland, W. Counties,' and $38^{\circ}$ in 'England, 8 . to $45^{\circ}$ in "Scotland,
and England, N.W.,' and to $45^{\circ}$ in the "Chennel Islands."
"The rainfall just equalled the mean in 'Scotland, No, but was Ieas in all other districts. Over ' England and Ireland, S. the fall was very slight.

The bright sunshine was rather deficient in "Iraland, IN aud Scothand, $\mathbb{N}$." but was again very prevalent in all other diatricti. The percentage of the possible duration ranged trom to 35 in 'England, N.W.'' 22 in "Ireland, N.,' and 20 in - Scotland,

## MARKET8




London: Sept. 18. - Meears. John Shaw Sons, Seed Merchanta, of Great Maze Pond, Borough, Tondon, S.E., stste that business in field Seeds continues on a narrow eeale. Trifolium is in diminishing request, quotations for fine wmples are now abnormally low. Winter Tares come forward more freely, the demand being small, values naturally favour buyers. Sowing Rye is also axceedingly cheap. The new white Mustard is proving rather a short crop. Rape-weed is depressed. Birdseeds are for the moment in mengre requeat. There is no change in cither Peas or Haricots.

## FRUITS AND VEGETABLES.

Bomovali s Sppt. 17.- Quotations:-Onions, 3s. 6d. to 8. per bag; Horseradish. 1s. to 1s. 8d. per bundio: Apples, 2s. 6d, to 4s. per bushel: Pears, 18. 9d, to 2s. 34. per bushel: Plums, 2t. 3d. per halt-aieve.
gPITALFIELD: Sept. 17.-Quotations:-Cabbeges, 3s. to 48. per tally; Collards, 2s. 6d, to 3s. 6d. per tally; Beans, 1s. to 1s. 31. per bushel: Carrots, 2s, to $2 s .8 d$. per dozen bunches; Turoips, 2s, to 3s. per dozen buachea; Onions, 18.9 d , to 28 . per dozen bunches: Beet, 18. 6d. to 28. per dozen; Sage, 1 s .8 d , to 2s. per dozen bunches; Lemon Thyme, 2s. per dozen bunches ; Sweet Basil, 13.9d. to 2s. per dozen; Apples, 1s. to 2s. 6d. per buskel; Damsons, 2s. per half bushel

Stratroid, Sept. 17. -There has beea good supply of all kinds of produce at this market during the patweek, and a brist trade has been done at the undermentioned prient -Oabbages, 2s, to ks. per tally; Oalifiowers, 24. to 1s. AL,
 per doven bunches;
: Mangels, 16s. to 18. do.: 8 wodes, 150 . to 20. des. nions, Ghent, 2t. to 2s. 6d, per bus; do., Eorde suz Port., (s. 6d, to bs. 6d. per cace; Applen, English cookers, 1s. $6 d$. to 3. per bushel; do, deesert, 2e, to 3s. 6d. per bushel : Plumen 1s. 6d. to 2s. per halt-tieve; Damsons, 1s. 3d. to 1s, 94 per half-sieve; Tomatow, Roglish, 2s. to 3s. par peck: Cucumbers, fume, 1s. to 2s. per dozen; Co., field, $4 d$. to $8 d$. per dozen; Beane, Scarlet, 18. to 1s. 6d, per bushel ; do., 28. to 3s. per bag eand, is to 2 s 8d, per dozen bunches: Celery, $9 d_{\text {, to }} \mathrm{is}$ per roll; Pareley, 1s, to 1s, 6d. per dozen buaches.
EABengDon: Sept. 10.-Quotations:-Cabbages. Collards, 18. per dozen; Caulinowers, 18. 6d. to 2s. doten; Turaipe. 3s. dozen bunches; Carrots, do.; Mint, Paraley, 3d. big buach; Sage, 2s. per dozen; Beans, 1s. 6d. to 2s. per bushel; Splaach, 2s. per bushel; Marrows, 18. par doces; Onions, 3s. per bag; Apples, large Oat's-heads, 3ı. por bushel; do. Ingevere 24. 9d; ; Golden Knobe, 25, 9d. per hall-buhel; bent Willam:

Pears, 7s. per half-bushel ; Hazels, 2s. per half-bushel ; Plums, Pears, 7s. per haif-bushel; Hazels, 2s. per half-pushat; pushel; bush, 3s. per half-bushel ; Damsons, 2s. per halt, Almeira, 17s. per barrel (best); Liebon, 12s. 6d. per barrel; Onions, case, 5s. ©d.

## POTATOS.

Bonoval: September 17.-Quotations ranged from 55s. to 903. per ton.

Spitalfields: September 17.-Quotations:-Blackland Magnams, 35s. to 45s.: Brace. 40s. to 503. ; Sutton's Abundance, 40s. to 55 s . : Highland Hebrons, 50 s , to 70 s . ; do., Brace, 45s. to 60s.; Snowdrops, 60s. to 80s. par ton.
STRATTORD, Sapt. 17. - Quotations:-Magnums, dark soil, Bruce, 25s, to 45e.; light, do., 40s. to 60s.; Reading Giants, 45 s . to 70 s .; Sutton's Regents, 45 s . to 80 s ; Snowdrope, 80 s. to 703. per ton.
Farrixadox: Sepf. 19-Quotations: White Hebrovs, 70 s. to 80s.; Red do., 10s. to 80s.; Snowdropa, 80s, to $85 s$. ; Imperators, 60s. to 70s. (of good thape); Bruce, also a good shape, 70s. to $80 s$.; Magnums, 35 s. to 46s. par ton.
Londor Averages: Sept. 18.-8nowdrope, b0s. to 80s.; Hebrons, 60 s , to 80 s . ; Imperators, 50 s . to 00 s .; Puritans, 50 s . to 55 s. ; Rarly Rose, 55 s . to 60 s. ; Regents, 55 s . to $65 s_{0}$; Magnums, 403. to 55s. por ton.

## CORN.

Averages. - Official statement of the average prices of British Oorn, imperial measure (qr.), for the week ending September 14, and for the corresponding period in last year:1895: Wheat, 22s. 10d.; Rarley, 23s. 11d.; Oats, 13s. $8 d$. 1894: Wheat, 20s. $5 \mathrm{ch}_{0}$ : Barley, 23s. $9 \mathrm{~d}_{\mathrm{o}}$; Oatt, 15s. 9 d.

## HAY.

Averages.-The following are the averages of prices at the principal metropolitan markets during the past week:Clover, prime, 90 s . to 110 s .; do., inferior, 50 s . to 80 s. ; hay, beat, 60 s . to 90 s .; do., inferior, 80s. to 68 s. ; mixture, 70 s , to 923. ; and Straw, 20s. to 38s. per lond.


- Fowing to the large increase in our circulation, toe ar Felvictantly under tha necessity of going to press some hours kindly aid us by sending their communications as sarly in the weet as possible. Communications should reach us not loter than Wednesday.
* Plants, Feutre, ETC., to ne Named.-Correspondents sending plants or fruits to be namad, or asking questions demanding time and resateh for thelr solution, must not sopect to obtain an anower to their omquiries in the curront wosk. Speimens thould be good ones, earsfully packed and numbored, and wot more than side should be sent at ons time. Leaves only, of Foricts varieties oanmot, au a rule, be named.
Akalysis of Soil: Thos. Bury. You could obtain an analyais from the Agricultaral College at Dowaton, Wilte, on paymeat of a small sum.
Appie Serdeisa: M.B. The Apples you send us are of cood size and appearance, and may prove to be a good ueefal sort. It is too early at present to pass a deanitito opinion. We would recommend you to send six fraite to the Frait Committee of the Rogal Horticaltural Society for their opinion next jear.
Brgonia Livares Dremequan: 4 Constant Subeoriber. Before your question can be answered, you mast nend us some of the creatures which canve the injury to the leavea. Probably, they are some apecies of alug which are night feedere generally, and mast be looked for after dark.
Boons: W. H. M. Fruit Farming for Profit, by G. Buayard; pablished by F. Banyard, 29, Woek Street, Maidstone; Praotical Fruit Culture, by J. Coeal; pablithed by G. Bell \& Sons, York Street, Covent Garden.-F. White. My Gardener, by H. W. Ward, pablished by Egre \& Spottiawoode, Eaat Harding Street, E C.-Amateur. The serial works on Orchide in the Eaglish language, now bring inuued, are The Orchid $\mathbf{A l h u m}$, by B. S. Williame \&s Son, Paradise and Victoria Narseries, Upper Holloway, N. Monthly parte, price 5s, It has been ranning since 1881 ; The Orehid Reviero, monthly, price 1s. Communications should be Creacent to the aditor of the Orchid Revievo, Lawn Creacent, Kew; Lindenia, conducted by Mearrs. J. Lindmn, Lucien Linden, and E. Rodigay ; publistied py Eag. Vanderhaegen, Ghent; Reichenbachia, Rabseder. The Fonder \& Co., Sb. Albanna, Reseder: The Horticultural Handbook and Fo hibitoro' Guid, new edision (W. Blackwood \& Sone, Edinburgh and London).

Cinsrarias: Interested. Perhaps the moil is infented with the grab of a weevil very deatractive to Cinerariae and most other thinga. Can you send us some of the grabs you have seen?
Crabs: J. Backhouse \& Sons. The Crab received from the late Dr. Regel, and again sent to ut, is a variety of Prunus Malus pranifolia, see Gardeners Chronicle, p. 427, October 2, 1886. The Crab John Downie, fraits of which you kindly send us, is a very ornamental variety, either in flower or frait, the latter fact being well sho wn by the fruits sent.
Duroline: P. M. We should greatly doubt the anitability of this material for covering a vinery inatead of glass ; but as a wall protector entirely open in the front, it would answer admirably.
Grapes: Gardener. Not having the least knowledge of the circumatances under which your Muscat Grapes are cultivated, we shall not presume to atate in what respect your calture is deficient. It may be anid, however, that shanking naually indicaten that the border is in an unsatisfactory condition, that the roota have penetrated a wet anbsoil below the border, or that too much water has been given the Vinem.-W. L. You may be right. We have aeen instancen before where the colour in Grapes has been affected by the stock on which the variety has been grafted. In this case, however, we take the colour to be merely a slight disfigurement by ruat from cold draught, eapecially as the exposed parts of the berries are alone discoloared.
Hecrbrbry: W. A. Prunua Padua, Bird Cherry
Hippeastrime: Amatour. Sapponing that the bulb: have been growing under glass all the aummer, growth will soon cease altogether, when water should be gradually withheld until the leaves turn of a yellow colour, when no more thould be afforded. Some varietien are almost evergreen in habit, but these should be similarly treated. It the plante have completed their growth, pianged to the rim of the pot in a mild hotbed, the roote will have penetrated the aubutance of the bed, whother it conolitt of tanner's bark, Oak leaven, or cocon-fibre refuse above a heated chamber They may be partially lifted out of it when the leaves have turned yellow. The temperatare of the house should not exceed $45^{\circ}$ in the winter. Failing the accommodation this mode of culture demands, the dried-off balba may be kept in their pots in a frost-proof dry room, or on a shelf in a vinery or greenhouse. The repotting may commence in January, and should be completed by the middle of the next month for all balbe of flowering age, and that of young non-flowering balbe by the end of March-of course the earlier the better, $s 0$ that the planta may have the benefit of a long season of growth. Seedlinge whose balbs are not larger than a aparrow's egg must not be dried off, although the quantity ot water required will be very amall from October to January. Bulbu purchaved at the shops may be either potted when bought, or kept in annd or cocoa-nat fibre till the proper time for atarting the balbs arrives.
Names of Fruits: (see notios under Names of Plants), W. T. Pear Belle de Bruxelles.-W. S. L. 1, Styrian ; 2, Marie Lonise ; the Apple is Hormead' Pearmain.-W. Cann. 1, Ronemary Rusest; 2, Cox's Orange Pippin; Pium much braived, may probably bo Pond's Seedling.-J. G. 1, Stone's Apple; 2. a pale frait of Dachess of Oldenbargh ; 4, Pear Marie Louise ; Plums ehould not have been packed with Apples.-T. W. Wo can only undertake to name six fraitent a time; Pearn, 1 and
 Louise Bonne ; 5, 5i, D, Doyenné Bjussoch; Apples, 2, Blonheim Orange; 4, Keswick Codlia.-T. Y. 1, Worcester Pearmain; 2, Maltster; 3, Dachess of Oldenbargh; 4, Lord Saffield; 5, Peaagooi's Nonsuch; 6 Datch Codlin.-W. S. Tighe. 1, Worcester Pippin; 2. Dacheas of Oldeaburgh; 3. Autumn Pearmain; 4. Cox'a Pomona; 5, Worcester Pearmain: 6, Gloria Mundi.-W. ${ }^{\text {Co }}$ Apple, Gladetone ; Damsons, the Farleigh variety.
Names of Plants: Correspondents not answered in this issus are requested to consult the next number.$J . M c D$. A Zggopetalum. The flower wan destroyed by a slug in the moss:-A. S. Veronica Chamædrys ; distorted by an insect. N. C. Polygonum cuopidatam.-H, W, R. Two billing received for Gardeners' Orphan Fuad with thanks. 1, Acalypha Macafenians: 2, Polygonum cuspidatum, -J. T. P. Celaia arctarus.-T. W. $B_{\text {。 }}$ Solidago canadenvis, Golden Rod. - H. T. Cytha-
rexylum betonianum.-F. Herrington. ${ }^{*}$ Polygonum caspidatam.-A, M. 1, Leycenteria formona ; 2 , Pinus Sabiniana; 3, Tilia earopea laciniata (the cut-leaved Lime), -H. B. Oncidium ochthoder, which is asid to be the same as O . chrysornit of Reich. f.-Elmet, Leeds. The Odontoglosnum Uro Skinneri is quite equal in every respect to thom we have remarked on, though differing from either.-Woollsey. 1, Polygonum caspidatum; Hieracium aurantiacam; 3, Pteris argyraa; 4 Adiantum concinnum latam; 5, Adiantam decoram; 6, Polypodium crassifoliam; 7, Pterin tremala.-C. B., Monmouth. Polygonum capi. datum.-N. C. 1, Capsella buras-pattorin; 2 Stellaria media; 3, Eaphorbia sp., probably peplau, -Camoens. Send better specimen.

Oaf gall and Oak apple: Royal. The termare synonymous.
Peach-shoots: Gardener. There appeare to bo nothing the matter with your Peach-shooth, bus the leaves are infested to some extent with amull acale, and probably red-apider. Syringe them rell daily until the leaves begin to fall off, and then the trees can be thoroughly cleaned before they are started again. Keep your hou*e open night and day, and use no fire-heat.

Roses, Mushboom Spawn, \&cc.: Grower for Market We cannot recommend dealers. Why do you not advertise your requiremente, or acsa our adrertinement columns?
Walnuts: C. C. Keep the nats, after the shell have been dried in the thade spread out on ant or table, in dry salt, clesn silver-sand, or charcouldust, and atore in a cool cellar. The nuta will not keep more than four montha in good condition.

Watrb Lettoce, \&c.: N. C. Water Lettuce in it Went Indian name given to Pistia atratioted, a very common tropical water-weed, which pro pagates iteelf with auch rapidity, that it frequently covers tropical ponds with its foliage, It ruy easily be grown in water-tanks in warm-houset in this conntry. The plant floats on the water, and senda down into the same a mase of fine roots. The leaves are sometimes 5 inches long, prodaced io tuft, and runners are very freely produced from each plant. The Treasury of Botany mould be useful to you, as it contains intereating partienass about this and many other plants you aro interested in. Hyptis suaveolens is known as hiol Weat Indian Spikenard; Ferula Ansfosidid F. galbonifera, and F. orientalis, are not gaviden plante, though in their Mediterranean homes ens is of economic value. You masy experiena difficalty in obtaining the plante unless through botanic garden.

Communtations Received.-A. Cordery.-H. J. H.-. Stone.-W. R. F. -W. E. N.-D. W.-C. Mcl.-J. T. - A. . -A. J. K.-R. S. \& J., Limited.-J. P. \& Sone-S, \&, P. A. M.-B. \& Sons.-A. G.-J. C.-J. H.-G. P.-W. E. -Old Subscriber. - J. W. - J. D. - E. J. - P. L. S. \& T. H. U.-H. Cannell.-W. Bardney. - J. Andersen. - Binctal W. M.-H. M. - M. P. Andersen. - D. T. F. -J. 8t, Vipocrill Corcoran.-H.W.W.-R. D.-G. N. T.-Harst \& SonsG. Friend.

DIED - At Rangoon, Barma, on Jaly 14, 1896, Jous Josiah Coles Hardinas, son of the lato Thomas Fowin Hardinae, H.E.I.C.S, sged wis two and a half yearn.

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ELWES, H. J., Cirencester.
ERANOAET, M., Paris.

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CKSON,J.R., Museum, Royal Gardens, Kew.
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## GARDENING APPOINTMENTS.

Mr.

## Geo. Cliffe, of Shoreham Place Gardens, Kent, has

 been appointed Gardener to Lord caertor of tatton Tatton Park, Knutsford, Cheshire.Mr. William Woods, until recently Foreman in the gardens, Coton House, Rugby, as Head Gardener to John Cooper, Kaq.o, Delapre 4 bbey, Northampton.
Mr. G. Burrows, Gardener to the Rev. J. P. WAT, and Secretary to the Warwick Chrysanthemum Society, has been appointed Gardener to Mrs. W 1 Tson, Berwick House, Shrewsbury. The address of the now secretary to the above society will be duly advertised.
Mr. EDW Ard Gristwood, late General Foreman at Houghton Grange Gardens. Leicester, as Gardener to J. L. WARD, Esqq., Belgrave House Gardens, Leicester.
Mr. WM. Lime, for the past three and a half years with Mr. J. MoIspon. Hutton Hall Gardens, Guisborough, as Head Gardener to
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TOURNEYMAN; age 19. - Jams CXPHER U will be pleased to recommend man as above. Yive yeary experiezte in Plants and Orchids. Thoronghly stemdy and TOURNEYMAN (INBIDR).-Age 21; requirea situation in Plant or Frait Katablishment; vix years experience: grod references; bothy preferred. - H. W. OURNEYMAN, Inside and Out, age 29.Crobjy T. Bowserk, Garthailertoner will bo plemed to recommend Crooby Cote, Northallerton, will be ple
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Established Plants in Sheath, Cattleya Leopoldi (established), Grammatophyllum multiflorum tigrinum, \&c.
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They are the piolk of 30,000 meoently inpported, and contain a sala. Every plant ham boon carot ally pecimenas ever put and none but

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forms

## Peacatores

beauty and scaroity
of which
received F.C.C.
rillarium superbum lencoglorsum Cobbianum rubellum
Schroderianum
pulchellum Dormania nam
Bothschildianum
Humeanam
lyroglosenm
rroglowerm Marshallianum
Oncidium Mantini (see plate) Pollettianum (see plate)
Dyramidense
angustifolium
Coalogyne cristata alba
Lycaste Skinneri albs, several plants
Anguloa eburnea, from the
original plant
the pure white furm
Cattleya Arthuriana (hybrid),
only two plant in
exiatence
Calummata magnifica
Mossize Reineckiana
Wagneri
Arnoldians
Dormaniana
Duke of Marlborough
Morganise
Schroderi albi
Rex
gigas Dorman
Triansei Eboracenais
magnifica
allbs
Butleri
Rmpress
Russellian
Raokhouseiana
rubra
gigantea
Chocoenais alby
Gaskelliana alba
Rmperar Fredarick
Dullient Erederick
Deinense
Virginalia
Men be viown

Cattleya Triansei speciosa Mendeli splendidissima Alexandrae Dormaniana
Lielia"ancepe alba
Dawsoni
Miltonia Moreliana atropar.
Cymbidium Philbrickeanum
Coolit fower-spike
Coolia bella
Deadrobium nobile album nobilius
Murrhinianum
pendulum
ologans
Sanderianum
Leedsianum
splendidisoimum
Schneiderianum
Cookronii captaram
crassinode album
Oypripedium, many seedlingo unnamed
Sarageanum superbarm
euryandrum magnifl
Harriaianum superbam
Niobe
Bartettii superbum
lencorrhodum, large specimens
cardinale rubrum
orphanum
grasede, enormous speci-
men
Elliotinnum, grand spe-
Elliottinnum, grand spe-
cimen
alhopurpureum, grand
albo-purpureum, grand
specimen,
purpuratum, several
planta candidulum, Mrand specimes
Vecta
splendens,
enormous apecimen
glllieri Hyeanuma, enormous specimen
Mäsdevallie Veitchii grandithora
racemosa Crossii
molanoxentha
elophanticep
cucullata Bull's Blood
Hinclaiana
Pleurothallis Roezlii, fine apecimen: sid many other
Orchids of value.

Msy be viewed. Catalogues on the Preaisen, and of the

## Southsea

Ten minutes walk from Portsmouth Town Rail way Station CLEARANCE SALE of gDlendidly-grown GOLDEE

MSELL by PROTHEN on the AND MORRIS mill SELL by AUCTION, on the Premiese, The Saxe wrimu Nursery, Castie Road, Sto Ed wardi Road, Southera or 6800 GOLDEN EUONYMUS, 9 to 18 inches, nice buhby phat finely Bouvardias, and other Stock.
May be viewed one week prior to the Sale and Catalopen had of Mr. T. J. SHORT, on the Pramiaead, and of
The Arboretum Nurseries, Wood Lane, Therveric M ${ }_{\text {instructed }}^{\text {PSy Messers. Charles }}$ Lee \& MORRIS AUCTION on the Premises as above, on Monday, Octabar 1 , at $120^{\prime}$ Clock precisely
including ORNAMENTAL AND FLOWERING TRIRES nums, Purple Beech, Horse Chestnuts, 10 to 20 feet; Lebom Flowering Thorns, and Cherries; their beautiful tricolor Do Food, CORNUS ELEGANTISSIMA, Common Holliae, 2 to
feet: Aucubas, variegated, 12 to 18 inches; Cupresen feet: Aucubas, variegated, 12 to 18 inches; Cupresom and 3,000 GOOSEBERRIES and CURRAN1's, best varicties; quantity of Czar and Viotoria Plums, 5 to 6 feet, bushy; IJut and Fiberts, oval-leaved Privet, 3 to
ling, Fastolf, \&c. A quantity of standard APPLf(t, Cow ling, Fastolf, \&c. A quantity of standard APPLAN, Cors Orange, and other beat sorts; and Pyramid Apples and Puas
2,000 best Golden, Silver. and Green EUONYMUS, from 6 to 15 inches. GOLDEN YEWS, $2 \frac{1}{2}$ feet, and other Coritiom Myrobalana Plums, Rhubarb, Royal Albert, to ; 3,000 guik, $2 \frac{1}{2}$ to 3 feet.
500 dwart H.P. ROSES, beat sorts. A quantity of Amin mollis and altaclarense, all well budded, from 1 to $2 f$ fat also Rhododendrons, best named sorts, 2 to 4 feet.
May be riewed any day prior to the Sale. Cataloguem my be had on the premises, at the Royal Fineyard Munaf,
Hammersmith Roed. $W$., and of the Auctioneers, 67 and ${ }^{\text {an }}$ Cheapoide, London, E.C.
Lincoln.-Absolutely without Reserve.
IMPORTANT TWO DAYS'CLEARANCR SALE of exeediy, well-grown GRNEBAL NURSERY STOCK and Hu By Order of
By Order of Messrs. Pennell \& Sons, who require a portion
the Land for the purpose of Seed Growing in conamem of the increase of their Seed Business.

MESSRS. PROTHEROE AND MORRIS will SELL by AUCTION, on the Promises, Bracobride near Lincoln, about 2 miles from either of the Lincoln
Stand Stations, on TEXURSDAY and FRIDAY, Ootober 17 anir portion of the exceptionally well-grown

NURSERY STOCK
The whole of which has been carefully trangplanted, and is an in first-class condition for removal. The \$tock comprial 4000 Evergreens and Conifers, 1 to 4 feet, suitable for bum pots, and growing-on; 400 .Spccimen Conifers, 2 to 8 feet,
the borders. These specimens have all been grown with care, and are now adapted for immediate effective planting 900 Green and Variegated Hollies, 1500 Green and Variegte Box, 11 to $2 \frac{1}{2}$ feet; 300 new Golden Box, 11 to 2 feet, Austrian Pinee, 1 to $2 \frac{1}{2}$ foet, good plants: 1000 Laurela, varieties, 1 to 3 feet; 2500 oval-leaved Privet, 3 to 1000 1000 Standard Trees for Street and Avenue Planting; Negundo variegata, 5 to 6 feet; 1500 Flowering 600 Drar Forcing Plants, 3000 Berberis aquifolia, , to 2 foel, Climbit Roses of the best varieties,
Plants, Herbaceous Plants, 2500 Standard and Pyramid
Apples, 5 -yr. Trees, all true to name; 3500 transplanad Crabs, and other Stock.
NoTE. - The Auctioneers desire to call special attontion to this important Sale. The whole of the Evergreens have bet transplanted within two years, and have been allowed pleaty of room, and have also been pruned. The Standard Theen traight, and overything has been grown solely for a higit clase retail trade. Mesers. Pennell \& Sons will undertate a carefully lift and deapatch any lots, charging only the coite labour incurred and material used. Goods may be trapiaitheat from the Lincoln stations to any part of the king change of truck.
May be viewed any day prior to the Sale. Catalogres gevt be had on the Premises; at the Seed Shop, fign Lincoln; at Mesers. PENNKLL AND SONS Cnis and of then Auctioneers, Rstate Ageats and Valuers, 67 and 68, Cheapaich ondon K.C

Sunningdale.-Preliminary notice of a mont mptr grown NURSER SLX DAYS SALE of asceptionamind
RHODODENDRONS, amongst them a large quand
opecimen Standards, such enormous quantities of frum $A Z A L E A S, ~ P R I V E T, ~ B R R B E R I S, ~ R O S E S, ~ S I O C K ~$ Mr. Noble has included in this Sale the beat portion 10 LD otock, including some marvellous specifective planting The Auctionears desire to call the sttention mos finporther templating planting this sacson to this afted ath Nur
for many years.

 October 21, and five following days
Yurther particulars will appear.

## SALES BY AUCTION. DUTCH BULBS.

 GREAT UNRESERVED SALES.MESSRS. PROTHEROE AND MORRIS will SELL by $\operatorname{AUCTION}$ at their Central Bale Rooms, 67 and 88 , Cheapoide, London, E.C., EVERY DAY. at 12 o'clock,
latge conignnents of NAMED HYACINTHS TULIPS CROCUS, NARCIMSUS, and other BULBS from Holland, lotted to eat the Trade and Private Buyers. DROPS, \&

## On view morning of Sale and Catalogues had

## DUTCH BULBS — DUTCH BULBS.

sales nearly every day, in Large and small Lots, to autt all Buyers.
M
 Garden, nearly every day, at half, paet $120^{\circ}$ Clock, firrt-clase
cons gaments of Choice HYACINTHS, TUCLPS, CBOCUBES, NARCISSUS, and other BULBS arriving daily from well $k n o w n ~ f a r m s ~ i n ~ H o l l a n d, ~ i n ~ t h e ~ f i n e s t ~ p o s e s i b l e ~ c o n d i t i o n . ~$

On view morning of sale, and Catalogues had.

## WEDNESDAY NEXT

## IMPORTANT TRADE SALE OF BULBS.

SPECIAL COLLECTION of choice named HYACINTHS, epecially lotted for Glass, Pot, or Border Cultivation, including most of the best-known sorts: a great assort
ment of TULIPS; a collection of rare NARCISATjS; a ment of TULIPS; a collection
fine variety of CROCUSKA, \&c.
Seversl thousand ROMAN HYACINTHS and NAROISSUS from France, for Karly Forsing ; a number of well-grown

$\mathrm{M}^{\mathrm{P}}$R. J. C. STEVENS will SELL the above 1 by AUCTION, at his Great Roome, 38, King 8treet,
Covent Garden, on WEDNESDAY NEXT, October 2, at balf-past $12 o^{\circ} \mathrm{Clock}$ precisely.
On view morning of

## 

 MESSRS: LINDEN'SFIRST GREAT ORCHID SALE Will take place at his Great Rooms, 38, King Street, Covent
Garden, THURSDAY, Octobez 17 (Mr. STEvENs boing proviouly engaged for the 3rd). As this is likely to be very atractive 8ale. and will probably draw a large attendanoe, it will be an unumal opportunity for including anything chotce in the middle of the Sale for anch Plante.

Extensive sale of Potato Crope, withlo eany reach OLD PARK BURY, NETHER WYLDE, BATLERS GREEN, \& ALDENHAM FARMS NEWLAND'S FARM. RADLEETT, ARD THE HOME PARM, ALDENGAM ABBEY
The Crops are within easy reach of Radlett Station on the Midland Railway, 1 miles from Park Street on the London
and North-Western Railway; and 3 miles from St. Albans.
MESSRS. HUMBERT, SON, aNd FLINT on WEDNESDAY, October 2, 1895, commencing at 12 O'Clock precisely, in numerous lots, to suit purchasers, about-

185 ACRES of fine Growing Crops of POTATOS,
Magnum Bonum, Bruce, and Beauty of Hebron. Within easy reach of the London Markets.
The Crope are well worth the attention of Saleanen, Dealers, and others. They stand adjacent to good roads, and within Bhort distances of the goods yards and sidings. Every facility
will be given to buyers to clamp on the land, and to remore

Catalogues, and all further particulars, can be had on applica-
tion to the Auctioneers, Mesars. HUMBERT, SON, 1 ND FLINT, tion to the Auctioneers, Mesars. HUMBERT, SON, 1 MD FLINT
at Watford, Herts; and 11, Serle Street, Linooln's Inn, W.C.

Capital Detached Sutton, Surrey.
Capital Detached Freehold Residence and 2 acres, about TESSRS. DEBENHAM TE MESSRS. DEBENHAM, TEWSON, FARMER. AND BRIDGEWATRE will GELL, at the Mart, on TURSDAY, October 8, at $20^{\circ}$ Clook, the FREELOLD detached RESIDENOE, known as Fairview, Eaton Road, approached by a carriage swoep, and containing five bed-rooms, and offices; stabling, coach-house, cow-house, and ontbuildings. The grounds comprise tennig-lawn, productive kitchen-garden, and well-stocked fruit plantation; vinery 66 feet long, double Peach-houne 73 feet long. Cucumber frame, and potting-abedin all about 2 acres. With posension.
Particulars of Mesirs. MORGAN AKD UPJOHN, Solicitors, 7. Furnival's Inn, Holborn; snd of the Auctioneers, 80, Oheapside. Hall's Narserles, Truro.

$\mathrm{M}^{\mathrm{F}}$IN BANKBUPTCY. Re SAMUEL HALL. from the Official Receiver to SELL by PUBLIC AUC TION, OA MONDAY. TURSDAY, and WEDNESDAY, October 14, 15, and 16, at 10 o'Clook each day, the whole of the
of Evergreen Trees, Hardy Conifers, Hardy Ornamental Flowering Shrubs, Trees, Climbers, \&c. A large quantity of Fruit Trees, consisting of Peach, Poar, Apple, Cherry, Gooseberry, Pinks, Arum Lilies in pots, Fuchsias, Ampelopris Voitchii, Narciesus buibs, \&c.; together with six Greenhouses.
 September 23 until the time of Saleo from 10 A. M. till 4 P.M. Toor further particulars apply at the offices of the Official Reoviver in Bankruptcy. Truro; or, to the Auotioneer, Market
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Conservatories and Winter Gardens designed architecturelly correct without the aspistanoe of anyone out of our firm, from the smallest to the largest. Hot-water Foating Apparatus, with really reliable Boilars, erected, and guccees Fuaranteed in all cases. Melon Frames, Sasher, Hot Bed Bozes, \&ca, always in Stock.

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A MARKET GROWER'S FREEHOLD With two Glasehouses and Pits, with to OF

If desired, part of purchase-money 2 acres of Land.
If
If desired, part of purchase-money oan remain.
Ten minutes from Station.
Particulars of BOBERT ELCOOK, Auctioneer, Wimborae.

## To Nuriorymon and Forista commencing basinese.

AMITON-ON-TILAMES, on THE MARLING
PARK EGTATM, free from London form, a dey rch
the favourite nei hbourhood for Growera, FRERHOLD loam, the favourite neishbourhood for Growera, FRERHOLD
LAND for SALE, on easy system of payment. Excellent sites for readences, -Hor ulu particulars apply to Mr. EREDK. G. NURSERY, PLANT, FRUIT GROWING, tavourite and CUT FLOWER BUSINESS for DISPOSAL. In Glase and Premises; 24 acres rioh Land. Fine connection, luerative trade. A fortune in energetic hands. Proprietor retiring. Incoming raluation.
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## Hooton Estats, Cheshire.

T
NURSEHYMEN, FLORISTS, and OTHERS 1 HOOTON HAL, extent nearly 5 acres, having an ex comprises Greenhouse, three Vineries, Peach, Orchard, Tomato Cuoumber, and Melon Houses; there are the usual Potting Shede, Fruit Room, Office, Gardeners' Bothy, Etabling, te.e. aleo good Gardoner's Hows.
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A ZaLEAS, Madame Van der Cruyssen, the best

 GERMAN or FLAG IRIS (Orobid Rivals), G boot time to plant. Firint Prize Rogal Botanic, only
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and are the phete have been collected by a Member of our Firm, and are the bett apeciee obtainable in the Pacho district. He ans, "The Plunta contilis smongat theme many nstarull hybrids, COLLINS \& COLLINS. ORCHID IMPORTERS, CUMBERLAND PARK NURAERIES WILLEEDEN JUNCTION, LoNoon.

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FORCE your STRAWBERRIES in JADOO
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LIGET BROWN FIBROUS PRAT, se, ed. per mek; I min 25ss; seacks td. esch.
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## 6 feet long

6 feet
12 feet
6 feet
12 feet
12 feet

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## THE

## Gardenters Chronidle.

SATURDAY, SEPTEMBER 28, 1895.

SOME OLD-WORLD GARDENS. THERE is an indescribable oharm about oldfashioned gardens, which in modern ones seems to be lacking. The piotures are toned with a mellow restfulness, soothing and grateful to the townsman's nerves. "Fair quiet and sweet rest" are there, no violent contrasts of crude colours, scarlet, yellow, or blue, distract the eye : mingled fragranoes pervade and pleasant memories linger around them. From this old mossy-stemmed Apple-tree, onoe again drooping with it wreaths of crimson and gold, we gathered a pooket full of luscious fruit full sixty years ago. The goldfinch still puts her pretty nest in the boughs overhead. From that old China Rose we plucked a bud, and put with it a spray of Ladslove to offer to a blushing lassie of sweet seventeen !
All the year round, too, there is sometbing to admire in these old gardens, from Snowdrops and Winter Aconite, Crocus, and the "rathe " Primrose; through the freshness and beanty of April and May, to the time of Roses in leafy June, when the garden is in its prime, Pinks and Lilies are there, with Ronemary, Ladalove, and Lavender. Then comes the waning year when-

## "Heavily hange the Hollyhock, <br> Heavily hange the 'Tiger-Lily.'

Perhaps it is during August and September that the flower-garden wears its most resplendent colours, and when butterflies san their gorgeous wings on the petals of the Phlox, the Hydrangea, and the Aster.
There are few lovers of a garden, and worthy of the name of amateur, who will begradge the gardenless visitor a glimpse of his flowers.

Let me endeavour to give a brief sketoh of some gardens whioh, by the courtesy of the owners, I have been allowed from time to time to saunter through. There is one garden, by the way, accessible to the public, as of course it should be-they pay for ita keeping-Royal Kew, perhaps the grandest garden in Europe! But I speak of others not so well known.

One of the most delightfal old gardens in England is that of Lord Essex at Cassiobury Park, near Watford. These gardens were repeatedly visited by John Evelyn, and about them Stephen Switzer remark: "It must not be parsed by that at Cassiobury the pollte spivit of gardening shone brightest," and that he "never saw that traly delightful plave without being more than ever ravished by its natural beauties." Entering from the woodlands by the headgardener's cottage, beneath a leaf-fringed aroh in the lichen-stained wall, we see a portion of the old kitchen garden. In front of us is a border about s hundred yards long and three yards wide. On either side of it is a broad, smooth, gravel walk; and along the centre, atintervals of perhaps half-a-soore yards, is a line of standard, domeshaped Filberts. On either margin is a belt of
white-flowered Pinks, 2 feet wide ; then the centre -nearly 5 feet across-is entirely filled with Lily of the Valley, Lilies, and Pinks. One may imagine the perfume exhaled as the spring showers patter among the leaves and blossoms.
One of the paths is over-arched by Apple, Pear, and Plum trees. When I saw it the trees were loaded with rosy bloom, and a smart shower had scattered the pink and white petals on the cool earth beneath. The borders on either side are filled with such old-fashioned flowers as York and Lancaaster Roses, Pæonies, Larkspurs, Phlozes, and Solomon's Seal. A seat beneath this leafy tonnel was a favourite resort of the late venerable Earl. There he would sit and ponder, with nothing to disturb his reveries save the songs of the blaokbird, the thrash, the goldfinch, or the amorous desoants of the nightingale, all of whioh, and many others, found safe and happy homes among the twinkling leaves.

In some of these old gardens, the walls are not the least attractive feature, whether at the time when the Aprioot, Plum, Neotarine and Peach are flowering, or when the lasoioas frait fows in rich, tempting festoons and olusters. Sometimes that saucy fellow with the "golden dagger," will put his nest in the branohes of a Morello Cherry, in the midst of the silver tassels, or among the snowy rosettee of the Pear; and in the chinks and crannies, blue-tits and wrens build oosy nests. The copings of suoh old walls, too, afford a footing for House-leek and Stonecrop, Wallflower and Snapdragon, Polypody, Spleenwort and Maidenhair Fern, with the elegant little Toadflax.
Opening a door in the opposite wall, one suddenly comes upon the delightful pleasaregrounds. The broad, smooth lawn, close and noft as a oarpet of emerald pile, are chequered with the shadows of stately Cedars and pillared Beeohes. A gentle slope leads to the river Colne; one espies its silver ribbon beneath the branches of anoient Thorns. Here and there are herds of fallow deer resting and ruminating in the shade.
Some of the finest Silver Firs in Britain flourish here, with Limes, Beeohea, Hemlook Sprace, and a large oollection of coniferous trees. Kew Gardens, we believe, were largely furnished from Cassiobary in the time of the Capels. In the orangery are some old trees, drooping with fruit. Near to this house is the quaint pleassunce of the late Lady " A." It is a rectangular plot, with a a low lattioed screen in front, covered with crimson China Roses. At the back is a screen with Roses and Clematis. In this are three ciroular openings-happy thought!-eaoh affording oharming views into the adjoining woods. The effect is startling! It gives one the impression of three oharming landsoapes, ohanging momentarily with the changefol light. Passing through one of the green alcoves, we come upon a sheltered dell and rockery, rich with a variety of Ferns ; then a seulptured fountain, and, bending over it, one of the many Willows reared from a outting brought from St. Helena, which still droops over the spot where Napoleon was first buried. Such is bot a brief glimpse of one of the finest old gardens in England: historically famons, rich in antiquities, and abounding in interesting specimens of trees and shrubs. The inhabitants of Watford are not slow to avail themelves of the privilege of walking through the delightfol park, and now and again strolling through the gardens and plemare-grounds.
My next old garden is part of the historio Moor Parle eutate. There are few hislorio
remorta for north-went London better rewort for north-went London bettor known
than Moor Park, and eapecielly among nohool
children. The late noble owner, Lord Ebary, probably never refused permission to ramble in his beautiful park. In the midst of it stands the stately mansion, onoe the residence of the unfortunate Duke of Monmouth and his Duchess. The eatate, it may be remembered, was once the property of Cardinal Wolsey, whose great honse stood, enoiroled by a moat, some hundred yards below. He was visited, while residing here, by King Henry VIII. and Queen Katharine. The oardinal's Oak still lives.

The park, some 500 acres of rolling sward, has many magnificent Oaks-a grove of them near the upper pleasure-grounds are pollarded. It is said that this was done by command of the Duchess of Monmouth on the desth of the Duke. On the east front is a grand old Italian garden with marble fountains and statuary. It is a brilliant spectaole in the sammer months aglow with dazzling oolours. From these, the dazzled eye finds relief in glanoing over a spacious lawn with noble Beech woods to the left and right. This is a favourite resort of herds of fallow deer. In the distance, softened by blue mists, one desories the northern heights of London. Moor Park was onoe the residence of Commodore Anson, who delighted under the guidance of the famous landsoape gardener, "Capability" Brown, to embellish and improve the gardens and pleasuregrounds, and this beautiful and spacious lawn was one of his improvements. From the Italian garden, one may walk through the grounds, rioh in rare Conifers and splendid trees, and enlivened here and there by bright colours.

At a quarter of a mile from the mansion is the large, old-fashioned kitchen garden, also the work of Brown. This is even more interesting thar the lawn, with its fountains, statuary, and Yews. It is an oblong, of from five to siz acres in extent, surrounded by high walls, and bordered on the soath by an extensive range of glasshouses. The broad, smooth walke are margined with herbaceous flowers and fruit-trees, among which is a line of dome-shaped Pears-a oharming pioture when the trees are in bloom, and not less beautiful, though more tasteful when loaded with handsome froit.
A distinguishing feature of these old-world gardens is the mingling of flowers, fruit, and vegetables. On entering the gardens from the park the coup d'ceil is charming. A geometrioal lawn slopes away southward, gay with Roses, Carnations, Zinnias, Asters, Violas, and choioe bedding plants, a most interesting and delightful mass of mingled oolour, fragrant with Mignonette, Heliotrope, and Stooks. On the right is a frait quarter, with soores of varieties of Apples, Pears, and Plums. Broad walks ran east and went through the garden, the oentral one margined with raised borders, is thiokly planted with a host of old favourites, Hollyhoaks, Fuchsias, perennial Larkapars, Preonien, Phloxen, Foxglove, Hydrangea, Campanulas, Gladiolus, Agapanthus, Swoet Briar, Clematis, perennial Sunflowers; and, nestling in the crevioss of the burrs, oushions and rovettes of choioe alpines. The gardens are fortunate in having a broad setting of emerald sward and waring woods, while in the distance is seen the silvery-grey line that marks the valley of the Thames as it sweeps by Windsor.
The walls of this fine old garden are covered with Peaches and Neotarines, Pears, and Plums, While one stretoh of them was covered this year with an enormous crop of Apricots-a charming picture, though asarcely more beautiful than when loaded with the snow-white blossoms, beehaunted all day long. One must not forget those hedge of Rosemary, Luvender, and $S$ freet

Briar, nor the lines of stately Hollyhooks, hage
pyramids of glowing oolour. pyramids of glowing oolour.
There are several delightful old gardens in the neighbourhood of Harrow Weald and Stanmore. One of the finest is that of Bentley Priory; half a century ago the Priory was the residence of the late Queen Adelaide. On the south front is a fine Italian garden, with ststuary, fountains, and Irish Yews. A distinguishing feature of the garden a few years ago, was the huge cones or pyramids of blossom standing at intervals of a few yards. They were from 10 to 12 feet high, and 7 feet through at the base. The plants, Pelargoniums, Clematis, Heliotropes, Tropæolams were trained to stakes, and the effect of these buge cones of blossom was surprisingly beantiful. During the months of Jno, July, August, and September some grand Orage trees loaded with fruit were placed along the terraoe. A spacious park engirdled with fine trees stretches down to a lake, and beyond, at a distance of 4 miles, is seen Harrow Hill, with its charch. It is a relief to tarn from the brilliant parterre and sparkling fountains to the delightfully oool greenery and shade of the Cedar garden, with its bowers of Roses and the winding paths of the fernery.
At the distanoe of half a mile, on the margin of Stanmore Common, there is another delightful old garden, onoe the property of that wealthy penmaker and connoisseur of art, Joseph Gillott. No part of this garden is visible from the high road, but the worthy lady to whom it now belongs from time to time throws it open to visitors from London. Sometimes it is a party of hundreds of elderly poor folls; at another, a number of distriot visitors or soripture renders; or, again, at another, a large party of Sunday-school teaohers. Recreation, rest, and ample hospitalities are provided for each and all.

A distingaishing feature of this old garden of 21 acres, is the fine oollection of coniferons and deciduous trees, the latter remarkable for their brilliant foliage. One might wander for hours beneath the cool aroades, and emerge suddenly on the borders of a landsoape steeped in sunshinewoods, waving cornfields, placid lakes haunted by wild-fowl; while, on the horizon, is the stately grey pile of'St. Albans Abbey. The Lady Bountiful of this grand old garden, Mrs. Brightwen, with its statuary, olipped hedges, and borders filled with ohoice herbaceous flowers, is never happier than when she sees others enjoying its manifold charms. T. W.

## New or Noteworthy Plants.

ODONTOGLOSSUM ASPIDOREINUM, Lamm, spec. nov.
THIs is beyond any question the most floriferoas Odontoglot yet discovered. Not only does evers preado-balb produce two flower-spikes at one time, bat they do so for two and even three years in anccossion, a character which, though common among Muedevallias, has not yet been oberved with Odontogloseum. It is therefore quite common to meet with comparatively mall masee, which are set with twenty to thirty flower-apikes at one time, and as many as thirty-eight have been observed on one plant. Such planta look very charming and ornamental, more eapecially as the flower-upites atand apart from and alightly bend above the ahort narrow leaves, thas forming a wemi-globalar flowerivg mass of great beauty. I think acarcely anything more gracefal as a centre plant at a dinner-table could be imagined. The flowera vary somemhat in the colour of the lip, being sometimes pare white, but more frequently more or leas apotied with tilacorimson. The name is given in allasion to the peciliarly upright bent staminode atandiag like : shield above the now-like rontellum.


(exI P. 358.)

Planta denue, crapitove, attaining but amall dimenaions. Paendo-bulbe long-oviform, atrongly compresed, deeply plaited, two-leaved, 4 to 55 cm . long, 3 to 35 cm . broad. Leaves atiff, papyraceous, caneateooblong, abraptly caspidate, 15 to 18 cm . long, 1 to 1.5 cm . broad. Fiower - apike not inclined to branch, 30 to 45 cm . high, nine to fifteen flowered. Sepals and petals oblong, contracted into long ligalate pointe, and slightly nodalate at the borders, 35 to 4 cm . long, 06 to 08 cm . broad, clear yellow, blotch $\pm d$ more or leas with red-browa; the patale a little amaller than the sepale. Lip abpandariform, longnaguicalate, at the margin finely fringed, at the apex abruptly contracted into a sharp convolute point, 35 to 45 cm , long, 15 to 18 cm . broad, pure white, more or less epotted with lilac-crimson. The crest consinte of four teethlike lacinix, of which the two lateral ones are protracted into villose cirrhii. The borders of the unguis are densely villose. The colamn, ditticgaished by a deep atigmatic cave, bears at the apex on either aide a narrow cirrhiform apreading auricle, and is of a light yellow tint. Tae ataminode is protracted, and bent upright into a flat triangular point, standing shield-like above the rostellum.

Habitat, Colambia. licowa on trees in dense foreats on the eastern declivities of the weatera Aade of the Cance, 2200 to 2500 mejres above the nea. (Vid, Plant, Lehmannie, N. 10021 ; Lahm., Ic. Plo, t. 1001.) F. C. Lehmann, Popayan, Auzust, 1895.

## Cbroprala debilis, No. E. Brown (n.sp

Tabar flattened, with a short woody neck, prodacing several slender weak atemias mach as 3 to 4 feet in length, and about half a line thick, pendulous under caltivation, glabroas. Leares rather distant, half to 1 inch long, and aboat half to three-quartere of a line thick, succulent, subterete, alightly flattened on the face, acute, more or lese carved, with petioles about 1 line long, glabrous, light green. Peduncles quarter to half an inch long, glabrous, bearing one to three 盺ers at its apex. Bracts minate. Pedicela aboat 2 lines long, glabroas. Stpals 1 line long, lanceolate-acate, glabroas. Curolla 1 inch long, atraight; the tabe five-eighthe to three- q larters of an inch long, ovoid ioflated at the base, and there about 2 lines in diameter, cylindric and narrower above, scarcely enlarged at the moath ; the oataide is glabrous and pale parplish, the inside is aparaely covered with reflexed hairs in the uppar part; the lobes are 3 to $3 \frac{1}{2}$ lines long, erect, with connate tipl, lingar from a deltoid bake, replicate, greenith, with a blackish-purple keel iaside, glabroua outaide, covered with rather long, curly parple haira on the inner face. The outer corona is about half a line long, cap shaped, with five short crenations, and alightly ciliate along the margin within; the inner cosonal-lobet are $1-1 \frac{1}{4}$ line long, erect, narrowly ubinceolate acate, and doraslly connected at their base to the outer corona by five partitions; the entire corona is white.
This very diatinct and rather paculiar spacien was first tent to me frota the Gardeners' Chronicle Office two or three veare ago, and aubsequently I learnt from Mf. J. O'Brien that it was went to him by Mr. J. Buchanan, who collected it near $Z$ ymbs in $N$ jaces. land. It differs from all the other apacies known to me by its weak, pendulons stems. N. E. Brown.

## CYPRIPEDIUM $\times$ LORD DERBY (ROTHSCHILDIANUM $\times$ SUPERBIENS).

Our illustration (iiz.66. r. 35i) represents the Cypipedium $\times$ Lord Darby exhibited by Thomas Bratter, Efq, Stand Hall, Whitefield, Manchester (aardener, Mr. R. Johnon), at the meeting of the Orehid Committee of the Royal Horticultaral society, Angote 13, when it was unanimoualy duction of its clase, although at the beat introthe committee thought it nimilar to C . Members of superbam (Rothachidiannum $\times$ auperciliare), mannum meat which they ultimately withdrew on the dif.
frreace in the parentage and the saperior qualition of C. $\times$ Lord Darby being pointed out. Ose or two other hybride of repatedly the same parentage have been recorded, but the fact remains that neither in aize nor stately beanty of the flowers, or in the brightness of their coloura, has anything comparable to Mr. Statter's production been pablicly exhibited. The upper aepal is white, with a greenish tinge at the bare, and with some fine parple lines ; the petals ivory-white epotted with purple, and the lip brownishrose. Few and far between do anch rewards fall to the lot of the patient hybridist, and Mr. Statter is therefore to be congratalated on his very handsome protege.

## THE SEED TRADE.

The Grass and Clovgr Sbed Cropso-The retarns from the seed-growing districts in Germany, so far as they have come to hand, appear to show atikfactory crops. Meadow Foxtail Grrass is but a poor yield, as the late spring froste did the plants considerable injary, and the drought setting in when the meed was maturing, caused a farther loss of crop. Seed of this kind is expected to be very scarce and high in price, especially as home grown crops are decidedly below an average yield. Bent Grassea (Agrostis) also suffered from the weather, and the supply, both from Gormany and the United Staten, is very limited, and high prices must rale. The waved-air $G$ ras, Aira flexuona, promisen a full crop; the plant is well adapted for sheep pastares in dry nataral posilions. Sweet Vernal is a fine crop, and the quality exceedingly high. This is about the earliest grass to flower, and is known as the Spring Grase in this country. The tall Out. Gians, Avena elatior, has yielded a crop decidedly below the average.
All the Brome Graneen nhow a good yield, but an they are for the mont part of a roagh quality, containing bat little nutriment, and dialiked by catcle generally, they are not much emploged in this conotry for agricultural parposes. The Prairie Grass (B omus Schreeleri), or more properly B. commalatas, appears to be the only one in ase in this country, probably on account of ita herbage in spring affordiag an early bite to heep and lambs. Crested D gess-tail Grass has suffered somewhat from the waather, bat there is a fair yield of good seed, alchough it may have lost some of its brightnese. Tais is a grase natural to high and dry pastaren and sheep-downe, where probably no other species is more valuable, not only on account of the compactness of its fiae thort foliage, which is highly agreeable to the close-cropping animala that feed upon them, bat because owing to the depth to which the roots panetrate, it remains green during the drient parts of the ammer, or at leat, long after moat other species have withered. Cock'r-foot Grase (I) setylia glomerata) nows a good crop in the Uaited Siater, quite one-foarth larger than last year, and thoagh the seeds are momewhat discoloured, their germinating power is all that can be denired. From Naw Z saland comes good bright seed, but it does not germinate so well. It is a valuable grasn, generally liked by eattle, unleen when allowed to become coarne through neglect. Fencas Grasses thow a varying yield; Sheep's and hard Feaceaes, though not a fall crop, appears to be ample. The fine leaved variety shown the largest yield, but as aevare cleaning will be necessary to ensure superfine samplen, pricen are expected to be high. The yield of Meadow Fencus is large, and seed of very fine quality han been harveated; tall Fescue is a good average crop of fine quality.
The Yorkshire Fog Grass (Holcus lanatas), nhows a satiofactory yield of good amples. It in a grans which yield largely to the cythe, and where abundant and laxuriant, as it' often is on moiat peaty tands, it wonderfally increasee the bulk of the hay crop, though the hay is woft and apongy. It is recommended that when the hay in which this grass abounds is carried, aprinklings of salt hould be given to make it more palatable. The
and

Meadow Grasean (Paas), mow a good yield aloo ; the rough-atalked (P. trivialis) is excellent in quality. the emooth-stalked (P. pratensis) given a large yield of very fine seed.

The Rad Canary Grasa (Phalaris arundinacea) shows a large crop in Germany, though it is used in this country to a very limited extent, the herbage being too coarse to be liked by cattle generally, though it is said that the creeping shoots have a aweatioh Glavoar, and are greedily devoared by pige, who doubtless find them nutritious. It is common in many parta of this country on the banks of rivers, pools, and ditches. OI Timothy Grase (Palenm pratense), nothing cin be said at present with certainty in regard to the probable yield, though it is said to be good both in Rassia and Gurmany, It is sometimes aid that it is a grass not generally found in the-best natural pastures in Great Bitinin, though that is a controverted statement. It attains to its best quality in a deep and retentive soil.

All kinds of Clover appear to have brought, or to be bringing good yields this year, and eapecially so the white variety. Alsike, Trifoliam incarnatam, Trefoil, and Sainfoin all promise well, bat the vield will depend upon the weather, whether favourable or otherwise. Pisum

## ASTILBE LEMOINEI.

Under the generic term of Aotilbe we inclade the whole of a group of plants with perennial stock, herbaceona stems, the foliage deeply cat, and large branching inflorescences componed of a maltitude of mall flowers; in colour white or pale rose, individaally insignificant, but prodacing a remarkable effect owing to their numbers. The plants have the appearance of baing related to $S_{p} i i \ldots \infty$, of tha Arancus section, so that many of them, after long cultivation, are commonly known under the name of Spirxa, whilat botaniats have aloo givon them the name of Hotera; we believe it is quite jastifable to inclade them all in one single genus, the genas Astilbe, as most of them have been produced through the easinens with which they cron, an inconteatible proof of kinship.
The name of Spirea should be at once absolutely rejected. Spireas belong to the order Rosace, and are characterised by the existence of numerous stamens, and of a pistil formed of from three to fivo carpels, uaually free. Astilbep, on the contrary, are Saxifragen, and have from five to ten stamena and two carpsis, unally more or less united-at any rate, at the base.
The genus Astilbe was founded on A. rivularis, Hamilt, a perennial ahrab, a native of Napana and temperate region of the Himalaya from Cabhmir to Bhotan; it has apreading rhizomes, apreading radical leaves, twice divided into three, the divisions dentate, the petioles farnished with numerous dall-colorred hairs. The atems, which grow up to nearly 5 feet, bear several alternate leave日, and are terminated by a large paniculate trazs formed of namerons amall flowers. The corolla is deficient, the lobes of the calyx numbering from four to five, are yellowishwhite, and the eight or ten atamens are pure white. Astilbe rivularie does well in a gravelly nitaation ; where it is fresh, and partly shaded, it forme a nice decoration for the borders of laker, \&ce, bat it it necensary to cover it with leaves daring the severe cold of our wintera.
Under the name of Astilbe rubra, Hook, there was introduced, more than forty years ago, a apecien indigenous in the mountains of Kameya, and north east of Bingal; it was diecovered by Grifitith, and wout to Kow by J. D. Hooker and Thomson, who fonad it thriving at altitader of from 5000 to 6000 feeth It differe from the preceding species by the existence of five rose-coloured petaln, arranged in ataro like form, and by the abandance of large redidias brown hairs which are on the stems, leavell, and inforescencer. The species is also known as Antilibe rivalaris rabra, and cannot etand very mevere wintert. Astilbe decandra, from America, was introduced into England about 1812; it is like the precedids
species, in habit resembling Spirma Aruncas; leaves large, biternate, of a glacous tint ; the flowers, borne in ramified panicles, are white.
Antilbe chinenais (A. odontophylla), was introdaced not many yeara ago from China, but does not appear to be widely known, at it is not included in borticaltaral catalognes. It rarely exceed 2 feet in height, the leaves are triternate, and the flowers white with parplish-bronze badings. This may perhap: be a variety of the following apecies. Aotilibe Thunbergii, Miqzel (Hoteia Thunhergii), was introdaced fifteen years ago from Japan by Mearta. J. Veitch \& Son, of Chelrea. It is a pretty apecies, with very elegant foliage, of which the folioles are petiolate, oral, and covered as well an is the entire plant, with little ailky hairs; the ramified inflorencences are
foliis aureo-reticulatia (about 1871), the foliage of which is green, variegated with yellow along the veins of all the foliolep, and the infloreacences of which are more tofted and compact than in the type; also A. japonica foliis-purpureis, the foliage of which is whining bronze, at least in the young atate, pasaing to dark green when completely developed; and, fiaally, A. japonica compacta multiflora. This lat kind, lately put into trade, is destined to supplant the common variety for all purposes for which it is suitable. The folinge is firmer, more developed, the inflorescences are larger and more ramified, and form white plamy-looking tufte; it appeare that this variety in a form of A. japonica with leaver reticulated with yellow, but the foliage of which has retarned to ite normal colour, and the paniclen, already more
name is no more ridiculous than many terme in botanical nomenclature, auch as Dracena Draco, Ervam ervilia, Specularia apeculum, \&c..*
A. (Spiroa) astilboiden grown from about $1 \frac{1}{2}$ foot to 2 feet high; the pinnatifid leave have reddibh petioles; the foliole oval, pointed, much toothed, hairy, of a brown-green colour; the ramified floral stalks are covered with little white flowers, denae, Which are in the form of a tubular calyx with five white lobes, five white petals, ten white stamenc, and two onited carpels. This opecien, as a perennial, liket a ailicious soil, and it particularly effective in rockwork, but is eapecially valuable for pot-cnltare and for forcing, under which very pretty flowering apecimens can be raised.
The origin of a variety, called by fit producer, M.


Fig. 67.-astilbe lemolnfix. (aer P. 358.)
perfectly erect, ard bear flowers with petal whito merging into pale rose, elegantly set along the floriferous branchev.

Everyone knows Attilbe japonica, Miquel, more often called Hoteia japonica, Morr. and Desne, or even Spirza japonica, Hort. It in a plant covered with long brown hairs on the base of the ateme and petioles, with radical leaven in tufte, trifurcate petioles, folioles oval lengthy, almont coriaceons, of a dark bright green on the apper auface; panicles atraight, ramified, while the bracty, the pedicels, the calyx, the corolla, and the stamens, are pure white. This species, when grown in quantities for forcing, is tho an excellent perennial plant; it likes a peaty soil, and generally a cool and half-shady woil. The rhizomes are perfectly hardy, but very often the young whoot are deatroyed by pring fronts.

Many other varieties of A. japonica are aleo cultivited. By hybridising has been obtained A. japonica
compact, have proflted by the increated vigour due to the return of the chlorophyll, and gained atill more in aize and abundance.

The year 1879 marked the firt appearance of a new speciet, for which numerous namen are not lacking. It was, in fact, at that time that Mr. William Bull, of Chelses, who introduced the plant, sent it ont at Spirza nivoa; the following pear he showed it under the name of Spirea Aruncan astilboides, a designation applied to it by the Kaw botaniats; or aimply a Spiran astilboidea, a term under which it soon became popular. Maximowicz, who had discovered it in Japan, eparated it from the Spizent, and called it Arancus atilboiden, Maxim. But the Arancus are also Spirseas, and all the characteriatice of the plant we allude to refer it to Astilbe or Hoteia; so, keeping the specific name, now perhaps too widely epread to be changed, it thould be named Astilbe astiboiden. Really this

1) eabois, of Ghent, Spirea satilboide floribunda, is discribed in the Rerue de l'Horticulture Belge for 1891 (p. 145). One day M. F. Wiot, of the firm Jacob Makoy et Cie, of Liège, showed M. Desbois a rapid method of multiplying A. (Spirea) antilboides, from seed. "I sowed them in the month of May," anid M. Dasbois, "I often remarked that the folinge of these seedlinge wat dark green, almont renembling that of Spirse japonica, inatead of exbibiting the metallic-brown tiat of the type.

The following apring I was atruck by the distinctive characteriatice of my eedlinge and of the type; I atill more admired the fine thyrsoidal trasees of flowert much more close and namerous in my eedlings. I deemed myself authorised henceforth to connider my acquinition at a new peciet."

[^30]M. Desbois thought that his plante corresponded to a specific type of A. (Spircea) astilboider, while the plant origioally introduced under this name was an inferior variety of the ame type. We think that, on the contrary, his plant was a Datural hy brid between A. japonica and A. (S.) aatilboides, probably calcivated at a little apace apart one from the other in his garden, and easily crossed by the insects of all kinds which never cease to visit thene flowers. We believe this for two reasonn: the first is that $\mathbf{A}$. (. o $^{\text {. a atilboides, from seeding plants sold by the frm }}$ Jacob Makoy et Cie., were exactly similar to the type ; the second reason is, that we have artificially crosed Aatilbe japonica with A. (S.) astilboides floribunda, and have obtained all sorts of intermediate forma many of them very fine, and aperior to both parents. The accidental bybridiaation just mentioned is therefore possible. As thene varieties have not been anfficientiy atudied, and as they are not yet re-named, we will refrain for the present from apeaking of them. We will, on the contrary, say a few words about another hybrid, Astilbe $\times$ Lemoinei, the prodaction of which tend to confirm the theory advanced above, namely that Aatilbe Thunbergii, Hoteia japonica, and Spirea astilboides are bat pecies of the same genus and should be classed as Astilbe.* We owe this novelty to a cross effected between A. Thanbergii and A. (\$) astilboides floribunda. Here is the detcription:-foliage very elegant, rising to 19 inches in height; long ramified petioles; large folioles broadly oval, dentate, goffered, farnished with very bright green hairs and with a sating look. Immediately above rise broad ramified paniclea borne on firm peduncles, and forming plumy inflorescences 19 inches high; the fiowers have five white petals, ten rosy stamens, and two carpela, and are extremely numeroup, and the general appearance is of white, nlightly rons. Placed alongside of A. (8) antilboides floribunda, as shown in the photograph, the new plant is seen to be twice so high, the time of its flowering is intermediate between the times of its two parents ; it blooms in the course of Jaly, some days before A. Thunbergii, one of the latest of the genus. Lastly, Astilbe Lemoinei is absolutely hardy, and an well adapted for forcing, as is A japonica, which it excels from every point of view. Emile Lemoine.

## Orchid Notes and Gleanings.

## Cattleya warscemiczif, COUNTESS OF DERBY.

This unique form of what ia popularly known as a white C. gigat is now in flower at Stand Hall. The plant, which was certificated last year, has been divided, and both pifcer are now in flower-one with three flowers, the other with two. That which atrikes the orehidist most is the distinctness of the colours of the flower; the segments are white as now, and the lip is velvety-crimson, with the upper portion having two orange - coloured eje: ahated white. Then the crimuon, which ir of the deepest hue, runs ap from the lower division of the lip to the bee of the column. No florist flower could be more distinct in its lines of colour, which do not shade into each other like many apecies and varieties, bat ohow the divisional lines in a marked degree. The lip, toe, although bifid, forms twothirds of the outline of a circle, and the lobes overlap one another. Traly this is one of the grandest of Cattleyar, and it is to be hoped that the numerous importations will give as a few more sach. Tho plants are growing in cylindrical baokets suapended from the roof, and are in the best of health: indeed, all Mr. Statter's Cattleyas under Mr . Robert Johnion's care are in exceptionally good healtb, and yield in their seaton antisfuctory crop
of flowers. J. foweris. J. $A$.

[^31]
## Masdevalifa Lowif.

This atill remains one of the rarest, as it is also one of the most atriking, of Masdevallias. Belonging to the M. Chimæra section, its flowers bear little rememblance to any other member of the groap at present in cultivation, alchough it in doubtless closely allied to M. trinema, A bealthy plant of M. Lowii, possesaing about a dozen leave is in bloom in the collection of R. I. Measures, Eiq., Cambridge Lodge, Camberwell. The well-displayed flowera have long triangular equal sepals of a greyish-white tint, profusely spotted with red-purple except at the tips, and bearing at the base of each two or three purple liner. The amall, almost flat-shapad, dark purple labellum is a very pecaliar feature. It was illustrated in the Gardeners' Chronicle, Sept. 6, 1890, p. 268.

Orchids at Megsrs. Jaf. Vietch \& Sons.
In the Royal Exotic Narsery, King's Road, Chelsea, the waning show of Oiontoglosanms, Masdevallias, and other cool-house Orchids, is succeeded by the occapants of the warmer houres, the Cypripediama, which are more or less represented here every day in the year, making an exceptionally good diaplay, and the house in which they are arranged is gay with their varied blooms. Among the prettiest are C. $\times$
"H. Bullantine" (Fairieanum $\times$ parparatum), a charming and neat bybrid, as are all the other bybridm of Fairieacum; C. $\times$ tesaelatum porphyreum (concolor $\times$ barbatam), an old bat handsome and atill rare variety; and C. $\times$ Clinkaberryanum (philippinense Roebelinii $\times$ Cartisii, a noble flower which was illuatrated in the Gard. Chron, 1893, Jaly 22, p. 86. Among other also we noted C. $\times$ Morganix, still a leader in its section; C. $\times$ Chas. Canham, a noble flower; C. $\times$ ceasnthum, and its variety superbam, in many varieties; and the forms of $\mathrm{C} . \times$ Ashbar tonix, equally numerous; C. $\times$ orphanam, C. Carnusianum, C. $\times$ Youngianum, C. $\times$ conchiferum C. $\times$ Io grande, C. $\times$ polyatigmaticam, C. tonanm, C. Chamberlainianum, C. Curtisii, C. $\times$ cardinale, C. $\times$ leucorhodum, and others of the Sedeni class; and ataged with them was a grand form of Vanda Sanderiana and other rare species.
In anosher house, with Cologyne Massangeana and other species in flower suspended overhead, was a well-flowered batch of the pretty white Dendrobiam Dsarei, D. formosum giganteum; the glowing rosycrimson D glomeratum, with a profasion of flowers; D. Phalæ ropsis S:hroderianum, in good example and great variety; D. bigibbum, D. aperbiens, \& small bach of the handsome D. McCarthiz, some pretty plants of Saccolabiam coleste, Phalenopsis violacea Schroderii, Angracum citratam, \&c. In small groups arranged along the staging was a very effective and showy dieplay of the soft carlet Habenaria rhodocheila; the handsome vermilion H. militaris; the flesh coloured H. carnea, which has alno prettily-marked leave ; and of H. c. nivona, its pare white form, which has plain green leaves. Alsoa plant of the pretty Nephelaphyllum palchrum, with bronzy leaves and curiously formed flowers; and other apecie of botanical interest.

In the Rockery-house, where a thow of Oichid is always maintained, the most atriking plants in flower were fine apecimens of Vanda tricolor and V. nuavit, the soft cinnabar-scarlet tinted Epidendrum cinnabarinum; Grammatophyllum Fenzlianum, Sobralia Lacasiana, Oncidiam microchilam, and other specien of Oncidiam; Miltonia Clowesii ans M. spectabilis radians, Paphinia rugosa, Odontoglosam grande, O. Bictonense and O. B. albam, M. Rofzlii, and some fine coloured specimena of the large-flowered type of Miltonia vexillaria.
In the Cattleya-house, the form of Cattleys Eldorado and C. Loddigeaii are the principal plants in bloom; and the Nepenthes-house and the ornamental intermediate-house rockery are very beautifal, a group of the different forms of greenhouse Rhododendron well diaplaying their carlet-orange, yellow,
pink, and white flowers.

## Cochlioda,

This amall genan is clowely allied to Odontoglos oum and the old Menopinidiam, which in now
merged with it. The plants belonging to it an evergreen, and require cool treatment; and they aro natives of the Peruvian Anden. Cochlioda Noez liana is a very handrome and distinct novelty, which was introduced in 1891 by Messrs. Linden of Brousels, through Mr. John Noezli, after whom it named. It is a most welcome addition to our cool Orchids, being distinct in colour; moreover, the rich orange scarlet tint of its flowers is one thet is very little represented in the Orchid family. In habit of growth it closely resemables C. valcanica having ovate-oblong, compressed pseudo-bulbs, and long, narrowleaves. The scapes are produced from the base of the completed bulb, and are pendulous, manyflowered, in some instances branched. The flowen are about 1 inch in diameter, and of a soft brilliant orange-scarlet; the lip is trifid, of the same colour as the sepals and petals, with a golden- yellow dian The column is bright violet-purple, which prodices a atriking contrast with the acarlet of the remainder of the flower. The flowering period is May and June, and for this reason it should be found valuable as a summer exhibition Orchid. The flower is very endaring, and we have been able to we the same plant at several exhibitions. We have found it succeed best grown in bankets, in a compont of peat and shagnam-mon, with good drainage, Daring the growing seas on it should receive a liberal supply of water. Propagation is effected by dividing the pseudo-bulbs. Orchid Album, vol. xi., part 128.

## Oncidium ornithorynchem albiflordm

was first flowered by the late John Day, Esq., of Tottenham, a mont enthaniatic Orchid grower, and whose collection was one of the largent and mont complete ever brought together in this country, bat unfortunately was dispersed some years ago on the death of its owner. This variety is in the habit of it growth similar to the type, and is quite an floriferous as the species, ita beatiful white flowers being produced, in some cases, everal together from the base of the leaven, and are pure white, saving the yellow calli at the base of the lip. It is a very useful subject for cutting parposes, and on that account should be eagerly sought after by collectors. It should be grown in a compost of peat and sphagnam-moss in a basket, and placed in the Cattleya-house at the shady end, a liberal apply of moistare being required daring the growing eeason, and afterwards only just sufficient water should be given to keep the pseudo-bulbs from ehrivelling. This plant may also be grown in the cool-house, but we prefer the Cattleya-houne, having found that it does better there. It is propagated by division of the pseado-bulbs. The flowera are produced during the nummer montha, and last a considerable time in perfection. Orchid Album, vol, xi, part 128.
M. Vuylstere's Orceids.

Among thene I noted Miltonia Emprenm Augusta Victoria, of unumal habit, bearing a flower of over 4 inches ( $10 \frac{1}{2}$ cen.) in height, by 3 年 inches ( 9 cen.) acrose; the two lateral sepals are each 4 inchen long; the lip measures 3 inche wide by 23 inches in height. The colouring of thil flower is admirable, peculiarly dark rose ; the division are more pointed than those of the type. I would mention also a plant of Cattleya gigas, the very large flowers of Which had spreading division of an exceedingly delicate coloar; the handsome dark lip is abouk 4 inches long by 3 inches wide. The seedling Odontoglosam before noticed continues to thrive. I admired a fine form of Cypripediam Charles Canham, good flowerm of C. Da Bosscherianum, Loochristiensim, and other varieties. Ch. De Bosschere.

Trees and Shrubs.
CUPRESSUS (RETINOSPORA) SQUARROSA.
A pine plate of thim Conifer, aeen at Linton Park, near Maidatone, and others a tritle smaller, in Yors: shire, a few days aince, remind one of its grest beanty and distinct ailvery appearance, and prove
that it is quite hardy enough to endare our Eaglieh climate, even when the thermometer fall below zoro. Like most of the genas, it is rather alow in growih, but this is an advantage in some instances, as many of the Pines and faster-growing trees become naked and uasightly after forty years' growth, an appearance which the plant under notice is not likely to have in the same period. W. $H$. Divers, Belvoir Castle Gardens, Grantham.
The Orange, or Golden•berried Mountain Ash.
I was very much atruck a few weeks since on seeing an avenue of this tree above 100 yards in length. I do not remember having observed it planted in quantity before; indeed, it is a tree rarely to be met with. This variety of Pyrus ancuparia should be planted about the gardens and pleasure-ground an a companion to the red-berried variety, which is also to be zeen in fine berry this season. I was informed by Mr. Goodman, the owner of this avenue, that the birds never touch the berries of this variety until long after they have eaten all the red berries, which is a point in its favour. The specimens aent have been gathered three weeka. Edw. Bennett, Lyne, Chertsey. [The banche of fruit sent by our correspondent were of a beautifal orange tint, and profusely set with berries, showing how favourable the weather had been when the trees blonomed. Ed]

## THE SYLLABUS OF THE SUMMER SCHOJL OF HORTICULTURE

 AT CHELMSFORD.The course of elementary intruction in Horticulture was given at Chelmsford daring the firat three weeks in Jaly. Owing to the nize of the clase and the nature of the intiraction, all the work (with the exception of the three chemical lectures) was carried on in a shed roughly fitted ap as an extemporised botanical laboratory - the continuoas fiae weather making the necentity pleasurable.
At a rule, the ecientific part of the invtruction wat given in the morning, and the more parely horticultural lecturen and demonatrations during the sfternoon of each day. Visits to nurseries, gardens and aeed farms in and around Chelmsford, formed an interesting leature of the programme. The following places were vinited:-

1. Pripate garden of the Mayor of Chelmaford. 2. Trial plot. of Mr. Callen, seed grower, Witham. 3. Seed farm and orchard of Mr. Seabrook, Springfield. 4. Town farm (for the disponal of sewage) Caelmuford. 5. Fruit and general nurwerie of Mr Saltmarsh, Moalsham, Chelmeford (Two visite). 6. Meloa and Tomato honves of Mr. Miller, Chelms ford. At all these place the class was received with the utmont kindnens and liberality. The atadenta in each case were taken round either by the principal or his manager, and full, interenting and inatructive information was given throughout.

At the end of the course an examination was given by Mr. John Frater and Mr. David Houston.

The following was the course of practical inatruction given by Mr. John Frater:-

## DEMONSTRATION I.

THE SOIL AND ITS PREPARATION.

1. Preparation of land for the growth of crope, and practice in the use of implemente.
(i) Garden ground should be trencbed every second or thifil jear ; part of this should be accomplished every year
(b) Take out a trench 2 ft . wide and 18 inches to 2 ft . deep.
(c) Wheel the soil, as it is taken out, to the far end of the quarter to be trenched.
(d) Cut the two sides of the trench perpendicularly as the worl proceeds, so that no hard ridges may be left to retain water as in a trough in winter.
(e) Fork or piek up the bottom of the trench so that the subsoil may be loose and allow superfluocs moisture to d rain away.
(f) If the groued is intended for deep-rooting Carrots or Parsaips, put a layer of farm-yard manare in the bottom of thas trenob.
(g) For other crops, especially shallow-rooting ones, more manure should be placed in a layer about 9 to 12 inches from the surface.
(h) Dis the soil of the econd trench into the first, and ropoit the operation till all the trenches are turned over.
(i) Fill the last trench with the soil taken from the first.
2. Rolling.
(a) Roll the garden walks to make them smooth and frm.
(b) In dry weather it will be necessary to water the walks thoroughly about an hour previously to rolling them, to render them soft, otherwise rolling will have no effoct.
(c) Roll the grass lawne to render them firm and smouth and to destroy worm casts.
3. Practice in the use of the rake, and preparation of need beds.
(a) Level a pieze of ground, breaking the clods and raking off the stones with as little soil as possible.
(b) Make the surface smooth and ready for seed sowing.
(c) Rake off the weeds from ground that has just been hoed, clearing shem thoroughly of soil.
(d) Wheel the weeds to the rubbish heap, and the stones to another.

## 4. Practice in the are of the Datch hoe.

(a) Push the hoe through the soil about if in. to 1 in . below the surface, so as to cut the roots of all weeds.
(b) In doing so, be careful not to cut or injure the cultivated plants.
(c) Hoeing is also intended to loosen the surface of the soil amongst all growing crops, especially in dry weather ; every part should therefore be equally 100 sened.

DEmonstration II.
MANURES AND THEIR USE.

## 1. Farmyard manure

(a) Prepsations for the fermentation of fresh farmyard manure.
(b) With a ateel fork, shake up the manure loosely, piling it ap into a conical heap.
(c) Let it lay for four to six days, according to the rate at bich it heats
(d) Should it be very dry, give it a watering with a rosed watering-pot as the work proceeds. This will assist it to ferment regularly and equally, and prevent violent heating and loss of nitrogen in the form of carbonate of amm nia.
(e) After four to six days, when the heap has partly subzided, shake it up in a fresh heap, with the rank manure in the centre.
(f) After a few more days it will be fit for the making of hot beds and Mushroom-beds.
2. Sampling different kinds of artificial manuren.
(a) Note the colour and general character of guano.
(b) If it smells unusually strong, it is losing ditrogen in the form of ammonia.
(c) It should always be kept as dry as possible, to prevent oge until about to be used.
(d) Note keneral character of sulphate of ammonium.
(e) If in its crytballised form, it is a highly-coucentrated manure coataining about 20 per cent, of nitrogen.
(f) Nitrate of sodium is aleo in the form of crystale, and contains about 15 per cent. of nitrogen.
(g) Compare coarse and finely-crushed bones and bone-meal. (h) Examine the ground phosphates; ascertain and remember the difference between them and superphosphate.
(i) Superphosphate has been prepared by treating the original substances with sulphuric acid.
(j) Coprolites are largely used for the making of it.
(k) The best superphosphates are made from phosphatic (k)
(b) Note the general character of potassium sult, Inown an cainit, and compare with nitrate of sodium, \&c.
3. Preparation of liquid manures.
(a) Get some pure cow-dung, put it into a tank, and fill up with water.
(b) Let it stand for a day or two, cover with a guano bag to prevent the manure from rising, while drawing off the liquid for use.
(c) Dilate it with water according to its atrength, uotil of a pale brown colour and relatively weat.
(d) Water pot-plants with it every secoad or third day, and with clear water on alternate days, if necessary.
(e) Place a bag of soot in a tank of water, and after 24 hours the clear licuid masy bo used as a stimulant. Soot containg a small quantity of ammonia.
(f) Another liquid manure may ba made by putting a handful of guano into 4 to 6 gallons of water.
(g) Use it weak rather than strong, and alternataiy with the liquid from cow-manure.

## PRELTMINARY COLTUBAL OPERATIONS

## 1. Seed-sowing-vegetables.

(a) Prepare a compost of two parts of loam, one part reaf (a) Prepall a part of and mix the whole thoroughly ould, and hall pur ; colully; cuer the (b) Get zome seed-pans aud drain them caroful.
drainage with the rough eittinge of ; press it dowa evealy and firmly, finally making the surface perfectly smooth and level. (d) If the soil ss relatively dry, give a good wateringt through fine rose, and allow the superfluous moiature to drain away. (s) Sow seeds of Lettuce or Onions, evenly and rather thialy all over the surface.
(f) Cover the seeds with a shallow layer ( and mora sandy portion of the compost.
(g) Give a light spriakling of water to ssttle the compost.
(h) Sthad the weed-pang io a greenhorsse, and keep a daily (h) Stand tho arature and the date of the first appearance of the zeedlingw.
2. Transplanting eedlings.
(a) Transplant the seedlings about 1 to 2 inches apart each way into other seed-pans or bores before they get crowded. way into other seed-pans or bores be
Carefully lift with all the rojts intact.
Carefully lift with all the rosts intact
(b) The distance between the to the natural vigour and size of the kind, and the time they are to remain in the boxes
(c) Roturn the boxes to the greenhouse pit or frame, and p'ace on a shelf or beach near the glass to preveat the seedlings from getting drewn.

## 3. Plantiag trees or bushes.

(a) Lift evergreens with a ball of aoil proportionate to the ze of the plants.
(b) Previou, to lifting, take out holes of sufficient depth and width to take all the roots when spread out.
(c) Deciduous trees and ahrubs, when liftelie eutumn and winter, need not have soil attached, ualess of large size.
(d) Cover the roots (1) with the finer soil, (2) with rougher material; (3) tread firmly when the holes are about hall full; (4) give a good watering, and leavo them till the water draine way.
(e) Finally fill up the holes and tread firmly.
(f) Stake the trees, \&cc., if necesary, to guard against wind.
4. Mixing comport.
(a) Make up a compost of three parts fibrous loam, half-a-part each of leaf-mould and well-dec yyed cow-manure with a good sprinkling of sand. This will euit Pelargoniums and other plants of similar characte: Breas up the lam roughly by hand, and do not sift any portion of it.
(b) For Fuchsias, more sand should be used. The compost in this case should be light and rich.
(c) Make up a compost of equal portions of loam and peat, with half-a-part of sand. This wou!d answer for many Ferns.

## 5 Potting.

(a) Drain the pots well according to size, covering the drainage with Moes.
(b) Put a little soil in the bottem of the pots.
(c) Turn out your plant, remove the crocks and the losser portions of the old soil.
(d) Pot firmly, and afterwards give a watering with a rosed watering-pot.

## 6. Siaking.

(a) Stake various plants neatly and effectively, using stakes proportioned to the size of the sane.

## DEMONSTRATION IV

VEGETABLE CULTURE。

## 1. Making nete of Potator.

(a) It in not adrisable to cut "round Potatos" when onls In. to 1 in in. in diameter, nor "Kidneys" unless more than 2 in. long.
(b) The eyes at the apex of the Potato are always the trongert, and one of them should be secured in as many ca:es as possible $f, r$ each set.
(c) For the sets obtained from the bitni ond of the Potato (dect the strongest ejes
(d) Cut the kidneys longitudinally, so as to get a good-sized piece of the tuber for each eye.
(e) Never cut too close beneath the eye of any set, lest the bud should be deprived of proper nourishment.
(f) Relatively large sets are better than emall ones.
2. Preparing a seed-bed for Onions.
(a) With a fork, level the surface of the ground, if it has been laid up in ridges for the winter.
(b) Give a top-dressing of pigeon's or fowl's dung and ajot, forking it lighty into the surface.
(c) Tread the coil all over, firmly and evenly, with the feet, or roll it to effect the same purpose.
(d) Mark off the ground at each end with pega 13 ia. apart.
(e) Stretch a hne from peg to peg along the ground and with the draw hoe take out trenches half-an-inch in depth and along the side of the lins which is used as a guile.
( $j$ ) After all the trenches have bsen taken out, sow the Onion ceed, thinly and evenly.
(g) With the back of the rake, fill in the $t$ eaches, beating down the soil lightly with the samp.
(h) Rake the ground smooth along the lines (not across them), so that no clods or stones may obstruct the germiation of the seeds.

## 3. Sowing Pene

(a) Ascertain the height of the Peas to bo nown, and if it bo 3 ft , mark off the ground in lines at, leest 21 fL . wisth
(b) Stretch a line from pes to peg along the groutad, and wittia draw-hoe take out trenches 3 in. deep.
(d) Sow the Pea evenly and moderately thickly along the trenches.
(d) With the rake, fll in the trenches till the soil forms a slight ridge above the Peas. Leave the soil rough, as raking is unneceseary with this crop.

## 4. Sowing Beang.

(a) Peg oft the ground in lines 2 ft . to 3 ft . apart, accordiag to the height of the Beans to be sown.
(b) Take out trenches 3 in, deep, and the Enll width of the hoe.
(c) Sow on plant the Beane in a double row, placing the oeeds 6 in. apart in the lines, and alternately with those of the companion line.

## demonstration v.

propagation of plants

1. Meking cuttings.
(a) Make cuttings of Gooseberries of young eboots of medium atreagth and 12 in . to 14 in . long. If longer than this, reduce them by cuttiog off a part of the apex.
(b) Carefully cat away or remove all the buds except four at the upper end. This will prevent suckers, and secure a cleen stem.
(c) Prepare outtings of Red and White Curranta precisely in the same way.
(d) Make cuttings of Black Currants about 12 in . in length. None of the buds should be remored, as suckers in this oase are deeirable.
(e) Plant the cuttings in trenches, covering them to a depth of 5 in.o. and tread the soil firmly against them.
( $f$ ) Make outtings of Carnatione and Pinks, each 2 in . to 3 in. long.
(g) Out them horizontally, immediataly beneath a joint, with s sharp knife.
(h) Remove the Lower pair or two of leaves, and slightly shorten the rest if they are very long.
(i) Trest Polargoniums in the same way; they may, however, vary from 2 id . to 5 in , in length.
(j) Remove Rose cuttings with a small heel of the old wood.
(i) For planting outside, they should be 9 in . to 10 in , long. Remove the lower leaves, but not any of the buds.
( $l$ ) Insert them in treaches 4 in. apart, and in lines 12 in . (l) Insert them in treaches 4 in
asunder, to leave room for hoeing.
asunder, to leave room for hoeing.
$(m)$ Put the bise of the cuttiogs 8 in. below the surface; $c$ ver with soil and tread firmly.
(n) For insertion in pots under g'ass or in a hothouse, the cuttings need only be 3 in , to 5 in 。 long.
2. Badding.
(a) Bud hoses a little below the surface of the soil, in the ase of bushes; and as near the main stem as possible, in the case of bushes; a
(b) Male a transverse cut through the bark with the budding(b) Make a transverse cut through the bark w.
knife, and a longitudinal one about 3 in. Jong.
(c) Prepare the bud by inserting the knife a little above it, paseing downwards and outwards till a piece of wood and bark sa inch in leng $h$ is removed.
(t) Cat off the leef retaining the petiofo. Oarefully remove the wood from the bark, retaining the core of the bud in all cases.
(e) Lift the bariz of the rtock with the thin end of the handle of the budding-knife, and slip in the bud beneath the bark so lifted.

All these operations should be done as quickly as poskible, to prevent injury to the cambium layer by exposure to the sir.
(g) Bind up the inserted bud with raffia, oorering all except the bad.
3. Grafting.
(a) Graft Apple, Pear, and other fruit trees about 3 in. above the eoil, except in special cases whers it in convenient of neces. sary to work the trees at a higher level.
(b) For aplice-grafting, cut both stock and scion in a slanting or oblique direction, so that the latter will exactly cover the cut surface of the former. The object is to make the cambium layer of both to coincide.
(c) In the oase of tongue-grafting, make a notch or a deeper slit in the stock, with a tongue in the scion to correspond to the same.
(d) When perfectly fitted, insert the tongue in the notch end bind stock and scion firmly together witb a piece of raffia, (e) Where triangular notch-grafting is intended, take out a Lriangalar groove in the atock, narrowing the notch to a point at the lower end.
(f) Cat the seion so that it will accurately fit the groova in the atock.
(g) Inert it, and tie up firmiy with raflis.
(h) Cover the grafte with grafting clay, and that again with

Moes to verp out drought.

## 4. Layeriag Carnations and Shrubs.

(a) Make up a compost of sandy wik son leat moould, and (b) Remore of it around the Carnations to be layered.
(b) Remove the lower lesves of the shoots to be layered
(c) Pase the blade of the knife inwards at a node, and upwards for half-an-inch or thereby, being careful not to sever the shoot from the parent plant.
(d) Peg down the shouts, keeping the tongue or cut open. (e) Cover the layered portions of the shoots with the compost, and give a good watering with the rosed wateringpot to settle the soil, Repeat the watering in $d r y$ westher until the layers are rooted.

[^32]
## I T A L Y.

(Concluded from page 325.)
Flower.carpets.-In Torre-del-Greco in celebrated every year during the month of June s religious feativity called the "Quattro Altari" (Four Altars), when, amongat it principal attraccions are to be seen the mo-called tappeti di fiori, or flower carpets. On the floor of the charchen occupying a pace which measures 45 by 40 feet, thene carpets are formed. This year there were five of them, representing, "Tobias's Departure," "Thomas of Aquino," who compiled the Liturgy of the Sacrament; "Jesus rescuing Peter on the Waters," "Naomi and her atep-daughter."
For the formation of these really artiatic carpets, which formed the admiration of all who saw them for the first time, the material employed is cut flowers or their petals, coloured and, and saw-duat. Could not such "carpets" be introduced by fashion in garden parties, or any such worldly amusements, using ecular subjects? We think that they would be a great success. [We hope not. Ed.]
At the Naplea flower-show a similar carpet has been greatly admired. It was of rich design, and contained in the centre the royal arms. It was composed with the produce of the vegetal realm, and the flowera montly employed were Dahlias, Pinks, Asters, Dalphiniums, fraits of Ailanthas, and dust of burnt Vine and dried Chestnat leaves. The green of its border conaisted of leaven either entire or minutely cut. The gardener, di Cristi, who had created this carpet was highly complimented,

## Cannag.

About the middle of the long aisle, the numerous vinitors atopped admiringly before the gorgeous ahow of Cannas presented by Mearrs. Dammann \& Co, of San Giovanni-a-Teduccio. No worda can exprem the beauty of the new varieties. How far behind are left the poor Cannas with amall flowers and atiff petale compared with these Cannas both as regard their vigoron growth and the size of their flowers : The label indicated "new varieties of Orchid-flowering Cannas," and, in fact, the large flower outrivale and nometimes aurpases the largest tropical Orchids.
The strong and compact spiken of the variety Austria are covered with enormous flowers, attaining a diameter of 6 inches and more; the yellow-apotted thront of which, and pale-red petals bordered with yellow, prement, against the mase of foliage, a mont atriking aight.
The Canna Italia is a grand plant exceeding 6 feet in height, with Musa-like leaves and enormous spike of brilliant red fower bordered with yellow. These are two of the mont splendid varieties, which for their beauty, leave varietie like Madame Crozy and other far behind; and yet in future, there will be atill more splendid rarieties such as Allemannior, La France, and others.
The jury interpreting the general admiration, and considering that nothing of the kind had been exhibited before, awarded Mearn. Dammana \& Co, the Diploma of Honour. Dr. G. Mottareale, Portiot, August, 1895.

## The Wegx's Work.

## THE OROEID HOUSES.

By W. H. Whert, Orehid Growar, Burford, Dorking.
CYPRIPEDIUM8. - The prement is a good time to look over the Cypripedinms which occupy the warmest division, and repot thowe that require it. Such plant an C. Stonei, C. Lowi, C. Lawrenceana, C. nelligeram $\times$, . Rothechildianum, C. Cartiof, C. Swanianum, C. Sandernanum $x, C$. barbatum, C. naperciliare $X, C$. Hookerse, \&c., that bloomed during apring and early summer, will by this time have made conviderable growth, and unless any of them are auffering for want of root-room, it will bs adriasble to let them remain nadistarbed until the flowering period is over, but such as have bloomed late, a C. Io grande $\times, \mathrm{C}$. Meanureaianum $\times, \mathrm{C}$. Chamberlainianum, C. radionum $x$, C. Pollettianum $\times$, C. Pariehi, C. 'T. B. Haywood, and thote
of the selenipedium section, may with advantage on repotted or top-dressed as each came may requirn Among varietien now in bloom mention may bo made of C. Maynardi $\times$, C. picturatum $\times$, $C$ orphanum $\times$. C. Harrisianum superbum $\times$, C. Mor ganim $x$, C. Abhburtoniæ $x, C$. Crosoianam $x, C$ purparatum, C. cananthum $x$, and it variety apper bum. As these plants commence to grow very mond after the flowers fade, no delay whould occur a the the flowers are past in repotting or aurface-drestion them. It is now a good season to take and prick out young seedling into very amall pots, or to gine more root-room to those that were taken of lix spring; if the work be done at once, they will become well established before winter. When repoting Cypripediams, it is not necessary to raine them above the rim of the pot, therefore keep the compon jast below it so as to render watering eary. The pots used chould be well drained, and the compors may consist of rough fibry peat and cless piched sphagnum in about equal parta, adding some broken piece of brick or crock to keep the noil free and porous. When well rooted there plants mas bo almost delaged with water the whole year round, but they must be carefully protected from strong ammbite at all times.

Cattleya-hoube, - In the Cattleya-bome, Cattleya Bowringiana, C. Alexandrw, and the autamn- -lowering varietie of C. labiata, are shomo ing their bloom-apiken, and will require afficient water to keep the roote moirt, but not wet, until the flowers open, when it must be gradually discontinued, Although the weather during the pati summer hus been exceptionally hot, there are still some plantsof Lælis parparata, L. tenebrosa, Cattleya crispa, and C. lobata, with growthe only a few inches high, and fortunately they appear very mach atronger than those which atarted earlier. As these growth will moon commence to make new roots, the plants inould be examined to find out if they require moreroot-1puc. In every case the roots bould have anfficient apece to grow inside the pot, therefore when re-potting, allow room for two season' growth. Daring the growing period the plants ehould be placed in the lightest ponition in the Cattleya-house, and miter very carefully afforded as recommended in former Calendars for others of the same gena. Some of the spring-flowering Cattleyas, as C. Trianmi and C. Mendeli, have completed their growth, also C. gigu, C. Eldorado, C. Hardyana, C. Manaiana, C. Dowiana, and it beautiful variety aurea, these will conat quently require less water at the root, sed all the anlight poasible, so that the nemilyformed balbe may become properly matured. The prement is a critical time with many Cattlepu and Leslian, and the grower hould look ores them every day, enpecially when the weather it dull and damp. He will probably notice that the outer wheath which encircles the preado-bulb, eapecially at it base, will be soft and sappy, clinging so tightly to the bulb as to prevent the ingrem of air, which is frequently a cause of decas. Should this occar, slit open the sheath from top to bottom, and keep the plants dry at the root for a few days, and at the ame time reduce the amonnt of atmopheric moisture. When on opening the shentio it is found that the bulb has already commenced to tarn black, the affected part ahould immediately be cat off, or the plant may die altogether. To prevent uch decay occurring, careful ventilation, with pleatj of sun*hine, is necensary.

## FRUITS UNDME GLASB.

## By hrowand Pancen, Gardoner, Goodwood, Chichuter. <br> PINES.-Suckere which were put into 6-inch

 pote last month, and planged in a bottom-hest of $80^{\circ}$, hould now have a niee lot of roota. Do no pot these on at this season, as growth made duripg the winter month is alway weak. Keep the jomph stoek as quiet as possible until the apring, when, wist lengthening days, growth will be both atroig tid rapid; only anficient water thould be afforded keep the bulb fairly moist. The planging metand should be kept well up to the rim of the potstant quite firm. It in not wise to shift the plants of of than is really necesary, as there is danger of check occurring, whicb may cause the plants to pives duce fruit prematurely. If the plantican be given a teady bottom-heat of $65^{\circ}$ to $70^{\circ}$, and pleary light, it would be as well not to disturb them Jip the apring. Shading of all kind should dowe pensed with at once, if this is not already and Take advantage of bright sunsbine to remove aidwell wash the roof-lights, wo that an much light as possible mayreach the plants. Continue to ventilate daily toong as the weather is mild and bright, and the floor may be damped averal time during the day. cient, and $75^{\circ}$ by day with ann-heat. Queens intended to truit next pring will have tlled their pote with roots, and whould be prepared for a season'u rest, by gradually reducing the temperatare of the house, and affording less water at the roots. If the plants are not carefully prepared in this way, they will fail to throw up good fraits when required. See that the planging material is made firm, and keps well up to the rim of the pots, as this tend to keep the noil moist and arve watering. Ventilation and temperature hould be the ame for there as advised for the young stock. Such varieties as amooth Cayennea and C. Rothachild which are welling frait, must be given plenty of heat and moistare. Utilise an-heat an much a ponsible, and ventilate bat little. Continue to feed the plant with gaano, or other atimulant. If the mackers on these plants have become large, they may be taken off at once, potted into 6 -inch pots, and planged in a brisk bottom heat; but should they be small, it would be better to reduce the follage on the old plant, and allow them to grow on until spring.

CUCUMBERS have improved wonderfully aince they were planted at the beginning of the month. All fruit ard male flowers should be kept pinched off, until the fruit is really required. Surface-dress the border slightly at leat once a week, at this keeps the roote from going down into the dung. Stopping and tying of the shoot must receive daily attention. Syringing thould now be done on bright morningy, about 9 A M., and again about 230 P.M. Ventilate cautiouely, as the least draught may give a serious check. The night temperature munt not fall below $70^{\circ}$, or mildew may appear. Keep a harp look out for green-fly or thrip, and check either at once by fumigating. If the floora and bare apaces are damped down at night with manure-water, it will assist in keeping the foliage free from these peata.

## THE FLOWER GARDEN.

By Batuex Wadds, Gardener, Birdsall Gardens, Fork. beodina planta-Preparatious should now be made for housing plants which require to be protected during winter. October frost frequently occur very addenly, and many varietien of beddiog. plants are then unsafe out of doors. Pelargoniums will sustain a few degrees without injury, but Lobelia of the Erinus section, Irenines, Colean, Alterasntheras, and some varieties of Pelargoniums, abould be lifted and boxed or potted at once, and placed for a time in close-ahaded pity or frames until they have commenced to make roots. Pelargonium as a rule are now in a better condition for blooming than they have been all through the nummer, and may be kept tidy as long as possible, but arrangements should be made to bring them in at short notice. Taberons Begonian now in good bloom may be lifted, and placed under glasa if desired; or they may be left in the beds for some time yet, providing the weather continues dry and fine. Dablias usually keep well in the ground until November; if they are blackened by the frost before that time, the top should be cat off 6 inches above the ground. Dahlia Rining Sun is a slendid autumn bedder, and is now a blaze of colour. We bave it round a border of Chryanthemam Madame C. Dengrange, which is now mas of bloom. Autamn-flowering Chryanathemams, Dahlias, and Helianthuses, and are blooming profusely. Bedding Dablias Cloth of Gold and Crimron Queen are excellent for antamn show. Crimeon Queen in about the colour of H. Jacoby. Dahlis Riving San in the colour of John Gibbone.

FALLINQ LEAVE8 will now give additional work. There is nothing more untidy than accumulation of leaven ap to the edgingn of flower or shrub-bede. They should be awept up every day.
arA88 LaWNB ahould be kept clonely mown, and well rolled when mowing is not required. Mowing is beat done is the afternoon at thil eason, there being unually very heavy dow in the morning. Grase edginge of walka and drive may be kept tidy by clipping, as long as the grans continues to grow; and any which have become uneven and weedy may be edged with the grase edging-knife, which will give them a imart arpearance during the
winter. Asphalting of walks with steep gradients if not slready done, should be completed as soon se possible; and walk and road that require fresh gravel on them should be attended to. Before adding the gravel, give a good dresing of weedkiller. Roll the walk and roads well, and compensate for lack of flowers by extra neatnes.

## THE KITCHEN GARDEN

## By Johi Lambert, Gardener, Powis Cautho, Welshpool.

CABBAGE.-It will soon be the proper time to plant Cabbages in the quarters. If the plants have been growing in nursery bede, they will be strong and sturdy, possensing numerons roote. In this garden Cabbagen unally follow an Oaion crop, the ground being cleared of this crop at about the right time. It is not necersary to dig light noils before planting. Plants which come out of nurse-beds, and consequently have compact root-masee, require to be planted with a trowel. I alway dig the land in this garden, having firt afforded it a light dreaning of bone-meal and fresh soot. Lime may be used in the place of soot, but I do not care to apply both at the asame time. The ground should be nicely broken up whilet digging it, and if dry when the job in finithed, it may be trodden evenly all over, and ahallow drills drawn, in which to plant. The drills ahould be about 1 foot apart, and the planta atand at the same diatance, each alternate plant being drawn in the pring for the earliest nee, which will leave the remainder at 2 feet apart. This planting should conaist of early-hearting varieties, uch as Ellam's Early and imilar ones. Afford the plante a good watering if the noil is dry. Cabbage carefully planted with a trowel soon make good plants, stand the winter well, and do not bolt readily.

CAULIFLOWER.-The produce of the reed sown lat month should now be of a proper size for pricking-out in narse-bed. Various method are adopted for keeping Cauliflower plant through the winter, and that of planting in cold frame is, I consider, one of the best. It is well to prick-out Caulifowers twice, first at about 3 inches apart, when, if they are carefully haded and matured, they soon begin to grow. The next remove hould be into the cold frames or handlighte, as the case may be. In frames they should stand at 6 inches or a greater diatance apart. The number put under handlight may vary from five in small one to nine or twelve in larger-sized lights. Keep close for a few days, and then expore the plants fally till froats or heary raina point to the necennity of putting the lights over them. Air mut be admitted at all time when there is no froat. The soil should not be so rich as to favour rank growth. Finely-powdered charcoal, a mall quantity of lime, road-grit, leaf-mould, pent Mashroom-bed manure, and burnt earth, are excellent for mixing with the staple. The latest aucceasion do well noder handglansea. Caulifower plente may also be pricked out at the foot of south walle, and if the winter is not unasually severe, they will survive. Beds may also be provided for them, bending hoop over these to form a support for a covering of bast-mata. Some cultivators sow aeed a little later than the usual date, and keep the plants in pots throughout the winter in a cool well-aired place, planting them out in the apring. Those raised from pring $n$ wings will produce nice head within a ahort time of other which were autumn-sown, that many growers have now ceaned to trouble themselves with antumn-sown plants; and late Broccoli fairly well bridge over the gap between the season of the two kind of plants.

## TEH HARDY FRUIT GARDRE.

## By W. Pope, Gardener, Highelers Cartle, Nawbwry.

8TRAWBERRIES AUTUMN. FRUITING, ETC.-Look
over Strawberry plantations, and cat off all late runners that have tarted since the beda were cleaned. Late bloom is not uncommon this autumb, owing to the premature ripening of the plants during the exceptionally hot weather of the early summer. Any auch late flower should be removed at once, and before the mulching with short rich manure, which should be done at this season. Newly-planted bed may be mimilarly treated, and if thene were planted in good time from the etrongest early runnerm, kept clean, and have been helped by mulchinge, they rill produce the earlient and finest frait. Earls-forced plante which bave been planted frait. give sapply of frait is the matann mat be
effectually protected from birdr, and the trueres of frait should be aupported by forked twign, or other device for keeping the fruit clean and well exposed to the benefit of un and air. If movable span-roof frame are available, they may with advantage be placed over these plants, and if a free admission of air be gived, the frait will be greatly improved. Whatever protection be afforded, it hould bs removed as aoon an the fruit is gathered ; if kept on too long the plants will become weak, and uable to withatand a nevere winter.
autumnal rabpberries. - Autumn - fruiting Rasperries are now ripening, and they require some care to protect them from birds and other enemies. If twine netting be used for protection, select net with a mall meah, mall birds being as troublesome as blackbirds, \&c. The usefulnest of Raspberries in the autumn in so great that the crop is worth considerable trouble to secure. When new canes are planted, a good open nituation should be chosen, and the soil trenched if ponible, and liberally enriched with good rotten manure. Planting hould be done early, the canes being cut down to a few inches of the ground, and well malched with rather long atrawy manare, which is not so liable to be scratched over by bird as short material. When eatablished, the canes mast be cut down annually close to the ground as soon as the fruit in gathered. In the apring, carefully select four or five of the strongeat canes to each atool, cutting away all others. Train the reserved canes thinly to wires, and keep ancker growth under by uning the hoe frequently. The best and most prolific varieties are October Red, Large Monthly, and October Yellow.

## PLANTE UNDER GLABB.

By W. H. Smity, Gardener, West Dean Park, Chichester. WINTER VIOLETB.-Frames should now be made ready for plenting winter blooming Violets. I have tried several method of growing these plants, and by far the best resulte were obtained by planting in frames in which Melons or Cucumbers had been cultivated. These frame or pith are $4 \frac{1}{3}$ feet deep, the wall pigeon-holed all round, the frame itself standing on brick piers. Sach a frame is about 30 feet long, and round it a walled trench $\sim$ feel wide extend for holding atable-litter. Daring severe weather, this in kept filled with fresh atable manure. By this means frost is kept out, and the coil warmed a little, and the plants are kept growing and flowering. The plants should be brought ap close to the glam when planted, and a mall quantity of freah loam and leaf-soil added to that in which the Melons, \&c., grew. The soil should be made very firm round about each plant, no loose woil being left about the neck of the plant. A good roaking of water should be afforded the bed on completing the planting, and a hesvy syringing twice a day in bright weather. The lighte may be left off night and day until signs of front are noticed, when they may be placed over the plants, but tilted unless the frost is sharp. A number of plants may be planted in cold framea, for although they may not give much bloom through the winter, unlese it be very mild, they will flower freely in the apring, and prove very unefal as a succenion to the earlier ones. A few of the bent double varieties for early flowering are Marie Louise, Neapolitan, Lady Hume Campbell, Comte de Brazza, or Swanley White; single are, Victoria (this is by far the best for winter work), Wellaiana, and The Czar. A good hardy double variety for growing outaide is Queen Victoria, which has egormous flowert of very dark blue colour and very fragrant.

MARGUERITE8. - Should any of theae be planted out, a batch of cuttings for flowerivg next apring may be taken. The cuttinge atrize readily in aand soil in cold frames, if kept clone and ahaded daring bright weather. Hhants growing in pota should be
afforded liberal supplies of manarew, water, sid they afforded Liberal supplies of ma
may now be allowed to flower.

SCENTED - LEAVED PELARCONUMB. - Thee plante shoald be taken indoor before the nighte plants cold, any light airy house being euitable for them. Place them clome to the glan, to prevent their being drawn, and afford plenty of plant-food, so sa to keep them green and heelthy.

Chryganthemum Show in Battersea Park. -Information reache u* from the Saperintendent of Battersea Park that the Chryanthemam Show will be open to the public in the Frame Ground in that park, near the Albest Bridge entrance, on and after O es. 5 , between the houre of 10 Am . and dak.
appointments for the ensuing week.
 WEDNEGDAX, Oct. $2\left\{\begin{array}{l}\text { Dutch Bulbs, at Protheroe 昆 } \\ \text { Morris' Rooms. } \\ \text { Qreat Gale of Lilium Earrisii, at } \\ \text { Protheroe \& Morris' Rooms. }\end{array}\right.$
THURSDAX, Oox. $3\left\{\begin{array}{c}\text { Dutch Bults, at Protheroe \& }\end{array}\right.$
FRIDAY, OcT. $4\left\{\begin{array}{l}\text { Dutch Bulbs, at Protheroe \& } \\ \text { Morrie' Room, } \\ \text { Orchids, at Protheroe \& Morris' } \\ \text { Kooms. }\end{array}\right.$
SATURDAX,
Oct. $5\left\{\begin{array}{c}\text { Dutch Bulbs, at Protheroe \& } \\ \text { Morris' Booms. }\end{array}\right.$

CORRECTED AVERAGE TEMPERATURE FOR THE ENSUING WERK, DRDUCED FROM THE OBSREVATIONS OF FORTY-THREE YEARS. AT CBISWICK. $-54^{\circ} .1$.

The Fruit Show at the Crystal Palace.

The second show of British. grown fraits by the Royal Horticultaral Society, in conjunction with the Crystal Palace Company, was opened on Tharsday last, a ciroumstance that precludes our giving more than a partial report in this issue. The exhibition, so far as we were able to judge at the time of going to press, is a very sucoessful one. There were 180 exhibitors this year in oomparison with 140 last year, and the number of entries in the competitive classes are 1800, as against 1300 in 1894. The quality of the fruits exhibited confirm, as we anticipated, the general opinion that the present season has been a very favourable one for most fruits, and particularly the more important kinds from an economic standpoint. A pples may be regarded as the fruitof the season, and the excellent produce staged by many of the exhibitors is an indication of the quantity and quality of the crop generally. We were not sarpised to find that Pears are not so splendidly represented as was the osse last year; and Grapes though generally in finer oondition, contained nothing of so firstrate quality as the best exhibit of last season. In regard to other fruits and the exbibition generally, it may be said that while in quantity the show is greater than last year, the quality is saperior also.

As Sir T. Lawrences said in his speech after the luncheon, the present exhibition is another proof, if that were necessary, that we are capable of prodacing Apples in this country that are equal in quality to any in the world, and it may be hoped that such a demonstration may still further tend to indace farmers who are now working the land to little profit, or perhaps at a loss, to turn their attention to "varions branches of mall culture," including that of frait-growing. In view of thia, Sit Trevor Lawrences did well to call attention to the sabject of frait-drying, as in great measure, the financial suocess of hardy fruit culture Fill depend upon the adoption of some satisfantory syatem of preserving in years of glat, that part of a crop over and above what is immediately required for consamption. Much of the loas experienced by the present growers, may be attributed to the fact that when fruit of
any partioular kind is unasually abundant, a large amount is allowed to go to waste, because the market prices for the moment will not pay the oost of harvesting and marketing the frait. Sir Trevor Lawrence attributed our backwardness in this country in regard to this matter to the circumstance that herticulturists do not readily combine, and in order to inaugurate a satisfactory system of fruit-drying, it was necessary that some kind of combination among fruitgrowers should be effected for the purpose. Undoubtedly the difficulty in regard to this matter lies here, but, as Sir Trevor Lawrencer added, we hope that gardeners are not so blind to the benefits to be derived from co-operation as to prevent an early application of the principle. There are other points than this, however, to which the grower must give increased attention, in order to compete satisfactorily with imported fruits. We still grow too many varieties for market-work, the harvesting of the fruit is not effected with sufficient care, and the present loose system of packing must give place to more careful methods. There mast be regalar and systematic grading, and everything done to make the frait as attractive as possible.
Reverting to the present exhibition, it is a matter for congratulation that the Royal Horticaltural Sooiety, has established this annual display of British-grown fruits; and especially so, beoanse in conjunction with the exhibition a series of lectures are given upon the subject that are of very great edaoational value. Now that a first-class fruit-show has been established by the one society capable of making it and keeping it a success, we hope that no lack of enthusiasm on the part of exhibitor or appreciation by the public will prevent its inoreased development and usefulness. We must, however, add a word of regret, that we are unable to record a departure from the customary style of displaying the exhibits. We are free to admit that a number of exhibits of Apples in single dishes, or of any other frait in similar classes, admit of a little variety of arrangement, but granting this, surely the collections of numerous varieties might be arranged in some more artistic manner than obtains? Why could they not be shown in such a manner to visitors that they would appeal to them in the same way as does a bouquet or a pioture? This might be easily acoomplished without in any way tending to deteriorate the quality of the fraits, or to prevent acourate oomparison for the purposes of judging.
the rockery at warnham Court, hor8HaM (eee Supplementary Illuatration).-There is no better way of exhibiting the beauties of most alpine plante and others of low growth, than to plant shem on rockerie. The plante are then placed in positions approximating, however diatantly, to those in which they grow in their natural habitats. Their necessitien can likewise be met in the matter of sunlight, or the lack of it, rapid drain ge of the roil, in securing deep crevicas in the dampness of which many specien of alpines succeed without soil of any kind about their root-merely all nodnles of nome kind of stone-limestone or other taking its place, resembling, in this reapect, the epiphytal species of Orchids, Tillandsias, \&c. A rockery admits of the more ready use of a variety of soils, according to the claims of the diferent apecies of plants ; for soils of granitic, limestone, cbalk, sandatone, peaty and loamy nature, than a flat border would render possible; the une of rock, artificial or natural, rendering the separation of the various materiale an eavy matter. There are rockeries
and rockeries, some erring againat every canon of good taste in their conetraction. In the one which is the subject of our illautration, no ambitions attempts, usually abortive, to create an Alpine landscape on flat land, have been made, bat dwarf mases of sandatone, with due regard to stratification in the rocks which appear to protrade from the soil, have been arranged over the area mith singularly good effect. The walka that lead through the rockery are afficient to allow of every plant being examined at close quartern, and the whole merges harmoniously into the sarrounding pleanaregrounds. We hope in an early issue to give a lint of the plants found on the rockery, as well as other particulars of interest to our readers.

The Manchester Botanic Society amo Allotmente. - The following letter from Mrs Broce Findlay appeared in the Manchester Guarima of September 20, 1895:-" Sir, Permit me to bring under the notice of your readers the initiation of a forward movement in relation to this most im portant anbject. It object may be deacribed an one to assiat rural effort in connection with the cultivation of the soil. It is well known that during the lat few years a very large number of perions bave become tenants of small allotment in the neighbourhood of large town. On the 5th of last month Mr. Gladstone, speaking upon this abject, asid: 'There never was a period in the history of this country when rural effort in relation to the noil deserved greater support, and those who render help in this direction are public benefactora.' The Council of this Society propose to hold an annanl exhibition in the Old Trafford Gardens, on a very large acale, of the productions grown by the tenants of amall holdings, at which prizes will be awarded for fruits, Howera, vegetables, poaltry, cheese, butter, \&cc. Prize日 will also be given to the growers of window-plants in our large towns. The counties embraced within the sphere of this effort will be Lancashire, Cheshire, and Derbyshire. We are all familiar with the old asying, that 'the hope of reward sweetens labour; and there can, I think, be no doubt whatever that this special effort will be the means of stimulating the foorer clames of society in their endeavours to excel in prodacing flowers, fruits, and vegetables. The Conncil are of opinion that it is the proper and legitimate work of the Society they represent to introduce and carry ont this project. In order hopefully to inaugurate this important seheme in a comprehensive way, an annual outlay of $£ 200$ will be necessary. To meet this expenditure a apecial fand is being established, and it is hoped that $£ 5,000$ will be raised for this beneficent parpose. It may be added that a donor of $£ 25$ to this fand will become a life member, or be entitled to nominate one. Knowing that the lamented Prince Cossons forty years ago took a lively interest in this sabject, I took the liberty of bringing the matter ander the notice of Her Most Gracions Majesty the Qums, and had the honour of receiving the following reply:-- Balmoral, September 2, 1895. Daar Sir, -I am commanded by the QUBRN to enclose a cheque for $£ 25$, at a àonation towards the purpose referred to in your letter of Augast 21.-I am, dear Sir, yours faithfally, Fleetwood J. Edwards.' Since the receipt of this letter, and as the result of nevernl letters I have written to ladien and gentlemen in. terested in the subject, I am pleased to atate that nearly $£ 1000$ bas been promised. A general appeal will shortly be made to the inhabitants of the districts concerned, together with the list of the donort, and it in hoped that the reault will be commenarate with the importance and beneficence of the under-taking.-Broce Findiay, Royal Botanic Gardens, Manchenter, Saptember 19, 1895."

The bechuana Chiefs at reading.-On Wednenday, September 18, Khazsa and the other South African Chiefa at present in England visited the entablisbment of Mearri, Sutron \& Soss, Seed Merchanta, Reading. The visit had been brought about by the Hon. Eustaci Wriceham Finanes, \&


The Rockery in the Gardens of C. T. Lucas, Esq., at Warnham Court, Horsham.
renident at Earley, near that town. The visitors, with Mr. Willoughbe, arrived at Reading about $10 \mathrm{~A} . \mathrm{m}$. on Wednesday, and were received at the G.W.R. atation by the Hon. Euspace Fienness, Mr. M. H. Sutton (the venerable founder of the firm), Mr. Martin John Sutton and Mr. A. W. Sutton, Mre. A. W. Sutton, and other member of the family, and were driven to the business premises in the Market Place. Here they signed the visitor's book in the usaal form, writing their name: very clearly in English characters. The visitorn were conducted over the various departments, and they also attended the anual 10.30 religions service in the meeting-room on the premisem. After a tour of the Market Place, the party were driven to the varioun marseries and trial-grounds of Memmrs. Sutton in the neighbourhood of the town. Afterward the Chiefn were driven over to Earley, lanching with the Hon. E. W. Fiennes, visiting the Biecuit Factory of Mearre. Palmer, at Reading, before taking their departure.

A Bi-generic Fern Hybrid.-With this, writes Mr. DrUbry, I enclose a frond, one of weveral recently ment me by Mr. E. J. Lowe, of a most remarkable hybrid which he has raised between Scolopendrium vulgare and Ceterach officinaram. In this the joint characters of theme two very dissimilar Ferns are seen too clearly to admit of doubt, though it is somewhat ingular that while the form of the Ceterach frond is so evident in the lower two-thirds, the extremely ecaly character of that species is entirely obliterated by the Scolopendrium parent. The frond sent in the best I have as regards general characters, but in another the sori near the centre of the frond are more clearly seen to be in opposed pairs, affording a mont andoubtable proof of Scolopendriam inflaence. This can be detected in two small sori near the apex of apeciman sent, and it is, moreover, interesting to note how the pinnatifid character of Caterach gradually merges into the simple frond of Scolopendriam which forms the termination. As the venation in both Ferns is dichotomous with free ends, I can detect no particular modification in this respect, except perhaps that in Ceterach there is a clearer indication of a midrib in the pinna. The fractification where not in pair is distinctly that of Aspleniam, with a well-developed indasiam; the porangia perfect themselver, but were all burat when the fronds reached me. I found, however, a few spores, but all appeared irregular in shape and imperfect; it ia doubtful, therefore, if the hybrid will be really fertile. Mr. Britten in his European Ferns, p. 137, figures a presamed hybrid between S. Hemionitis (or S. valgare), and Ceterach officinarum, but this is by no means a clear a case as the one I now bring before your notice, especially in view of the abandance of curious forms that Scolopedrium produces without the aid $o^{f}$ a crose at all, and some of which resemble atrongly the illuatration cited.

Chinese Insect Wax.-At an illuatration of what a State fanction will ometimes do, it is efficially reported from China that the fentivitiea and illamination in connection with the celebration of the wistieth birthday of H. M. the Empress Dowager cansed an increased demand for insect white wax from Fraximus chinensis, which is used for coating tallow candles, and giving them greater consintency, and the export rose from 9133 cwt . in 1893 to $12,934 \mathrm{cwt}$. in 1894 , the price averaging $£ 225$ a ton.

Jules Laverrier.-This eminent writer on agricultural eubjacts died suddenly at Lyons on his Way home after finishing his duties an a member of the jury at the Vienne (Ieère) Agricultaral Exhibition. After leaving the Saulasie School of Agricalture, where he had been mot succeanful at a stadent, he tranalated into his native language a Fariety of foreign works relating to agriculture, Laverarbr went in 1858 to Mexico as Director of Franceol of Agricalture, and on his retarn to France, about thirty years ago, he was appointed Librarian to the Société Nationale d'Agriculture in Pari, a post which he filled for the remainder of
bis life. bis life.

Tragacanth and Perbian Berries in Angora, - Under the name of "Katiera," the white Tragacanth-like game of Cochlospermum Gosaypium, and mome of the pecie of Sterculia, are known in India; and according to a recent consular report from Angora, a similar name, "Kitré," is applied to true tragacanth, furnished by a species of Astragalus. It is said to be known in commerce as fine white Syrian tragacanth, and appears in the usual forms as leaf, or flaky, vermicelli, or worm-like and mixed, or "sorts." It has the appearance of twisted ribbons, is white or reddish, due apparently to the state of the weather, munshiny or cloudy and moist; it is nearly opaque, and slightly ductile, enpecially when fresh. It adaptability in lieu of borax for giving a luntre to starched linen is perhap not generally known. The districte where the shrab in chiefly found are Yozgat, Iskilip, Cesarea, Kaledjik, and Angora. Like the Yellow-berry (Rhamnus infectorias), this plant is also neglected, owing to the falling off in the foreign demand, and though aboudant in the above-mentioned districts, little or no troable is taken by the peasants to collect the gum; this is done by men specially went from other partr. It is found growing wild in the fields, on the roadside, and even in hilly parts. On account of its prickly netare, animals avoid it, but it is frequently gathered by the peasants for fuel. Yellow-berries were formerly an article of export of great value for dyeing parposen. Much labour and expense were at one time bestowed on its culture, but the universal use of chemical dyen has reduced ite demend to less than one-fourth, and its value to one-tenth of what it realised twenty-five years ago, so that now the cost of gathering is barely covered. Cesarea is the principal centre where it is grown.

Cheshunt, Wormley and District Horticultural Mutual Improvement Society.The fortnightly meeting of this nociety was held at Tarnford on Thursday, Sept. 19. There was a good attendance, and Mr. Jason Fears, the secretary of the Hertford Horticultural Society, read an inntructive cultural paper on the Dahlia, concluding with a elect list of varieties. A hearty vote of thanks was accorded the author for his excellent paper.

The Sale of the Stamford House Or-CHIDS.-The collection of Orchids of H. SHAW, Esq., Stamford House, Ashton-under-Lyne, waz aold by Aatingestall \& Hind in their Rooms, Manchenter, on Sept. 19, and upon the whole realised fair prices. Among the chief were Cattleya Mendeli Blanti, which, after mome pirited bidding, realised $£ 9848_{0}$; Lælia elegans Turneri, £27 6s.;"Cattleya Mosniæ Reineckians, £16 16s, and another one, £6 10s.; Cattleya Mendeli Firthi, £5 $10 s$ s ; Lselia Gouldiana, £4 108.; Cattleya Gankelliana alba, £4 48 ; and Odontoglossam crispum, Stamford House variety, £12 12s.

The Sale of W. R. Lee, Esq.'s, Collection of Orchios.- Wm. R. Lee, Esq., Audenshaw, near Manchester, entrusted Mearr. Protherom \& Morris to diepose of the whole of hit collection of Orchids, which comprised many rare and well-grown apecien. It might be as well to give the names of the principal lots over ${ }^{-} 10$ that fell to the hammer of Mr. Protheroe, showing what the best apecies and varieties realised. The white form of Cattleya apecionisaima, called Sanderm, fetched £78 15s.; Cattleya aurea Hardyana, £68 5s.; Cypripediam $\times$ Winnifred Hollington, said to be the only plant in commerce, $£ 73$ 10s.; Cattleya Mosvix Reineckiana, £42; Dendrobium Leeanum, a goodlooking plant of the Phalænopsia type, £42; Cattleva labiata alba, with two bulbe and a growth, £68 58 ; Cattleya Garkelliana, £26 58.; LrelioCattleys Pbobe, £22 1s.; Cypripediam Aylingii, $\begin{array}{ll}£ 23 & 2 s, \text { Cypripediam Leeanum giganteum, } \\ £ 17 & 17 s \text {, Dendrobium atro-violaceum, } £ 18 \text { 18s.; }\end{array}$ £17 17 s, Dendrobium atro-violaceum, £18 18s.;
Cattleya labiata Warneri, $£ 15$ 15s.; Cattleya Cattleya labiata Warneri, £15 15s. C Cattieya dium $\times$ Aubigine, £13 13.; Cypripedium $\times$ Statterianum, £11 11s.; Dend. Falconeri giganteum, £21; Cattleya Triansel, £17 178; and one named
W. R. Lee, £14 148.; Cypripediam innigne, like Sanderæ, £21; Lælio-Cattleya Arnoldiana, £15 15s, and £11 118. ; Dendrobium nobile giganteam W. R. Lee, £13 13s.; Lælio-Cattleya $\times$ Eaterpe, £12 12s.; Pachyntoma Thomsoniana, £11 11s; Dendrobium stratiotes, £10 10s.; Cattleya crispa superbe, £1111s.; and Dendrobiam nobile illustre, mienamed "illustrus," $£ 10$ 10s. None of the plants abovenamed were large, but they were generally in good health. At the second day's sale at Audenshaw, the following price were realised for plant mecified :Cattleya aurea Hardyana, £63; Cattleya Chocoennis alba-maxima, £26 5s.; Cattleya exoniennis, £21; Cattleys Moniæ Reineckiana, £21; Cppripediam $\times$ Aylingii, £21; Dendrobiam plendidissimam Leeanum, £12 12s, and $£ 11$ 11s,; Dendrobiam nobile Hardyanam, £11 11so; Cattleya Gankelliana alba, $£ 11$ 11s, and Cattleya Gaskelliana, Audenohaw var., $£ 16168$. ; Cypripedium insigne of the Sanderæ type, £11 11s. The two days' sale realised about £2000.

Ludlow Chrysanthemum and Fruit SOCIETY's EXHIBITION.-The town of Ladlow intends to hold its first Chrysanthemum Show on Thuraday, Nov. 14 next, which will be supplemented by a competitive now of table-plants, cut flowers, of hardy fraite and vegetables, and Potatos, divided into the unual three categorien-Open, Amateur, and Cottager.

Death of Trees by Sunstroke,-During the late extraordinary warm spell, the writer of thil paragraph was called upon to aee s large Sugar Maple tree that was supposed to have been dentroyed by a leak of the city gas-main at the root; but an examination showed that the tree died, literally, from sunstroke. It is strange that close obervers of trees are uaable to see when anything is out of the common ran of things, and consequently note that something is going wrong. Thi Sugar Maple had been planted on the atreet probably a quarter of a century ago, and wan about 4 feet in circamference; bat the trank was almost triangular, and yet thi peculiarity aeemed to attract no attention. The tree was simply triangular because on three siden of the tree the bark and wood had evidently been destroyed years ago, while the outer bark atill continned to cover up the injury, and the only live wood was on the angles of the trank. Only about onethird of the trunk was practically alive. When the exceedingly warm apell came, it was impossible for these limited ducts to supply the mointure required for auch a large surface of foliage, and the tree, therefore, literally died from inability to furnish the moisture required for tranopiration. It may be alway taken for graated, that when the trunk of a tree, naturally cylindrical, taken an angular form, there is something wrong beneath the bark, and an examination should at once be made. The flatter portions will uaually be found dead. In this case, the bark should wholly be cut away from the dead portion, and the denuded part painted, in order to check rotting away. In time, the healthy wood may grow over the wound or lifelesi part, and the life of the tree be eventually saved. Meehane' Monthly for August.

Botany and the American Government.Under the title of "The Botanical Work of the Government," Mr. J. M. Coultes given in tha Botanical Gazette for Jane a briel sketch of the work of the U.S. Department of Agriculture. There are four divisione. That of Botany, nuder Mr. F. V. Coville and seven assistants, includes, benide more purely cientific work, the investigation: of weede, of poisonour and medicinal plants, and the tenting of seeds; 38,600 dola, was appropriated for its use in the past jear. The divioion of Vegetable Phyaiology and Pathology, with Mr. B. T. GalioWay as chief, finde work for as many as ten amistants. Potato disease, diseases of fruits and cereale, and the anatomy of galle, are among the subject to which attention in now being given. The appropriation for the year ending June 30,189 , was 26,100 dole. The division of Agrontology comen into existence with the first of July, an separste
from the division of Botany. It deals with forage plants and grasea, its function being to instract and familiarise the people with the habite and uses of the plants, to investigate their natural history and adaptability to different moils and climates, to introduce promising native and foreign kinds into cultivation, and to identify all grasses and forage planta which may be ant in for the purpone. Profersor Lamson Scribner, its chief, is preparing a handbook of the United Staten grasses. He has two assistants, and the appropriation amoant to 15,000 dole. The Forestry division is under Mr. B. E. Fernow, with four asiatanta. It main work daring the past three years has been the study of the character and value of the woods of "merchantable species." Mr. Fernow has, however, a much more difficult task in hand, namely, the arousing and organiaing public aentiment in favour of a rational forent policy. Mr. Coultar's article brings home the fact that in wome thinge our American cousing have got a long way ahead of un. Natural Science.

## ROTATION OF CROPS FOR THE GARDEN

One of the most exhausting syatems of soil caltivation is that of growing the ame crop year after year on the ame land, and even on the rich virgin voils of America it is now becoming recognised that rotation of crop offers the advantage of distribating the work of planting, cultivating and harveating over a greater period of time, $\mathbf{t o}$ that a amaller force of labour can cultivate and care for more crops in the aggregate than when limited to the ahort season adapted to one crop. The labour on both farm and garden can be utilised to better advantage when a variety of crope is grown than when but one is planted. Dr. Chas. O. Flagg, Director of the Rhode Ialand Agricultaral Experiment Station, has called attention to this fact in the sixth annual Report of the atation.

In the opinion of most gardeners the one thing needful for the uccensfal production of crops in an sbundant apply of stable manure, though of late years the value of artificial fertiliter hat also been recognised.
The growing of profitable crops without the use of some manurial help is not to be thought of. At the wame time it must be remembered that there are other practical and economical method which must be brought into play in the production of cropn.
For example, manaring must atand on the ame level with cultivation, drainage, and rotation of crope. The old-fashioned system of cropping in rotation has, however, by the very force of circumstances been almont entirely superseded both on the farm and in the garden.
The ides that the intelligent arrangement of crops into a rotation increasen the annual pield and helps improve and prenerve the fertility of the ail is not a new one, nor confined to the days of modern horticultare. But if rotetion is followed in the garden it becomea neceseary to have more than one syatem, becaue each gardener muat be guided to a great extent by the requiremente of the family for which he han to provide vegetablen. And the grower for sale has to convider the markets, so that it must frequently happen that some kinds must be produced in large quantities and in untimely measons.

The primary ream for rotation are found in the soil, and the different demand for food which the various crop make upon it, as well as difference in capacity of various plants to collect their food. The woil werven to fiz the plant, and furnishes medium through which it may send it roots for food and moistare, in which capacity it acts as a great ntorehouse ; and the hintory of horticultare, so far so we know it, clearly whow that a fertile soil is one whict hes accumulated within it the renidue of ages of previoun regetation, and that it become infertile ather revidue is exhauted. The dark-coloured oil the the cace, varying in depth according to matter-decaying lesives, to the presance of organic matter-decaying leaves, ateme and roots, with the
decomponing litter from atable manure. This portion of the coil contain by far the larger percentage of plant-food, and is constantly reinforced by whatever fertiliser in applied, by the decay of roota, and falling leaves, \&c.

As plants differ widely in their habit of growth sbove ground, so is there a difference below the arface in the root development. Some have a large mas of fine thread-like roots, which fill the surfacesoil ; others have large fleshy roots, which penetrate deep into the subsoil, and draw their supplien of food from the lower portions of the soil. In this way the deep-rooted plants grow upon supplies entirely beyond the reach of those having a shallow-rooted system; and herein we find a strong reason for the rotation of crops. Larger cropa can be produced by a judicious combination of nhallow and deep-rooted plante. Again, plant vary in their ability to secure a anficient supply of food from the amme aoil. It is well known that the Cabbage tribe will thrive apon land mach too poor to grow a good crop of Onions or Carrote.

The Rothamsted experiments seem to indicate that the Potato in able to avail itself of a less proportion of the nitrogen of the manure supply than almont any other garden crop, and the weight of tubers obtained per acre is consistent in showing how large is the amount of manure required in proportion to the quantity of produce obtained.
Some planty, while having aufficient power to secure an abuadance of certain elements, lack the power to extract the mall quantity of some other ingredient essential to its growth. The white Turnip and Radiahen are a well-known illustration, in that fertilisers or manares containing a relatively large amount of soluble phosphates alway give the bent crops, notwithatanding the fact that these plants are not enpecially rich in their contents of phosporic acid. The Tarnip and other root crope simply have a low power of annimilating phosphoric acid from the soil, and unlema a liberal amount of that element is supplied in a soluble form the crop is lemened.
In rotations, plants which are delicate feeder should be grown when the soil is full of available plant food, and be followed by atrong feeder which will wecure and use food left by the preceding crop. For instance, Potaton may follow Peas, and late Turnipa nacceed Potatos. When any crop is removed from the soil it carrie certain element of fertility with it, and repeated removale of the same crop without manuring will zooner or later exhanat most soils of those elements, so that further cultivation of that crop will be anprofitable. The sorl is said to be worn out. Let that portion of land alone, and very quickly it would grow up to weeds and grass-thus Nature begins the slow process of restoring the ground to a condition of fertility through the growth and decay upon and within the ail of a variety of wild plante. The rank growth of nome of these plante is Nature's contradiction as to the wornout condition of the soil, and prover that the woil is worn out only as relating to the plants requiring the eame element in the ame or about the same proportions. A very intereating illustration of thin fact is to be found in one of the Rothamated experimenta, in which a piece of land exhanated for Wheat-growing has been uncultivated and left to seed itwelf since 1882. At the prewent time (1895) there are found on this portion of land representatives of twenty-one different botanical orders of plants. Thewe are made up of forty-nix genera and fifty-one pecies. The fifty-one specien consist of twenty-two annuals, two biennials, and twenty-teven perennial plante. It is almo a significant fact that grases which are of the ame botanical order of planta wheat, do not fourish so well as those of other orders, also that aeveral legaminous plants have entablished themselven and grow with great rigour, producing flower and seed in abundance. No cultivated leguminous crop has been nown here for the pat mixty yeara certainly.
We learn from this inventigation that the minerals of the soil which are so necesnary to the successful growth of loguminor plauts atill exise in eufficient quantity, whilut the nitrogen which is the ingredien
so enmential for cereal crop ham become exbauted, and therefore the grasmes are poor for lack of nitable food. A good aystem of rotation with thoroagh cultivation would go far toward indefinitely pof. poning the evil day of anprofitable crops.

The same elements serve in the main as food for most horticultaral plant!, but the relative quantitien of each have a wide variation. If 1 ton of each of the following named crops, in the condition in which they are marketed or gathered for home concumption, were taken from the soil, they would remore tho amounts of nitrogen, phosphoric acid, and potal stated in pound in the table. The second portion of the diagram illastrate what would be remoni from the soil by taking away 1 ton of the refue of unsaleable portions of these cropa:-


A comparison of the figures showa that there in considerable variation in the amount of plats-foll abstracted from the soil by the growth of them crops. The quantity of each constituent in the Pew is seen to be very large, but the mineral food of thit crop is largely drawn from the lower part of the noil and aub-soil, while it is able to obtain some conaider able portion of it nitrogen from the atmonpleo through the friendly bacteria which multiply withis the nodule upon the roots. The large mane of roch left to decay within the soil, and that of mont of the unsaleable portion of the crop (the haulm) witic abould be returned to the land, adds to the quantity of organic matter, while the mineral elements ait left near the surface for the ne of other cropl, 10 that, instead of an exhausting crop, Peas and simile leguminous plants, are probably the best renonaing crops which can be grown, and hence hould find place at often an posible in every sound ajstem in rotation, whether on the farm or in the garden. Is connection with the foregoing atatementa, it mis bo observed that Peas and Beank grow more favournbly on garden moils that have recently been challed of limed. These abitances favour the derelopment the pod, and the mataration of the seed. Poinfil msnures and wood-ashes are also extromely holp in the ame direction, and direct experimenta to show that the immediate aupply of potach the root-range of the plant will probably be nooned exhausted than will that of lime.
Crop which draw heavily apon the supply of pow phoric acid in the aoil ihoald be followed by which require but little of this element.
Cultivation and atirring the soil frequently mote the rapid formation of available plation from the supplien of insoluble material in the in th hence hoed crops have an important place Bnow rotation as a mean of increasing fertility. leaved plante favour the development plant-food in the soil by farnishing the condition necensary for nitrification-that is, partial shade sume nil protection from too great heat, while the surfar.
is kept more moist because of less evaporation proted
Narrow-leaved plants do not shade and prote
the soil se do broad-leaved ones. It is also a fact that garden crops vary in the masen of their growth, ame making most of it in the cool weather of autumn and spring, and other only growing daring the heat of ammer. Here we have another important reason for a rotation of crops. J. J. Willis, Harpenden.

## Forestry.

'TREES, SUILS, AND SITIATIUNS.
()Ne of the most frequent iqueries put by intending tree-planters is, "What are the bent treen to plat
will grow in ordinary soil, providing the latter containa nothing of an inimical natare-bat growing and thriving are different terms. Soil, of course, is not the only reguisite for healthy vegetable growth, any more than food is the ouly thing necenary for animale, climate and situation being of equas


## CACTUSDAHLIA <br> "MRS. WILSON NOBLE." -

THR bloom shown in our illatration, fig. 68, wat exbibited by Messra. J. Cheal \& Sons, of Crawley, at the meetings of the Royal Horticultaral Society beld on Tuenday, August 13, and September 5, thil jear; the variety on the later occasion receiving an Award of Merit. The flower exhibits most of the printe characteristic of the modern race of Cactus Dahlias, as is well shown in the illuctration; and the colour is bright aalmon-pink.
on this or that particular moil ?" Answers to this question are usually plentiful enough, and liata of trees which have proved suitable for every typical coil may be found in every work which dealn with arboriculture. The fact neverthelens remain, that nothing is more uncertain than the failure or auccess of any genue or nopecie of tree in any particalar soil, and little short of actual experience, extending over a meries of yearn, enable at to defivitely say that a certain upecies will or will not thrive on a apeciffed nite. Generally speaking, any Kind of plant
importance at enential to success. Providing the latter are suitable, the question of coil becomes of less importance, although it must not be forgotten that soil may greatly modify the effect of climate and situation, and vice versa, especially in regard to froat, aërial moisture and temperature, rainfall, \&c. The pecies of tree tried bas also much to do with theme influences, rome tree being more affected by wil, while with others climate and mituation seem to play the more important part. Our unually imperfect knowledge of the constitaents
of the nubsoil account for a good deal of what appears to be inexplicable. Sudden variation in the lower strata may cause a warm aoil to become and denly cold and wet at a particalar apot, or be the mean of fertility being replaced by poverty, thas checking and retarding growth. All these uncertainties make tree-planting more or less of a apecalation, although in extensive planting operations the occurrence of blank and failures is alway anticipased to some extent, and we are usually satisied if the general resulta are goed. Where individasl trees are particularly wanted, as in the case of an avenue, however, the auccess of a tree, or a few treen, on a certain site, is often an important matter. Nothing apoils the appearance of a short avenue more than a few atanted trees here and there along its line, destroying, an they do, that uniformity which we look for in a regalar deaign. In long avenuew, slight irregularities are inevitable, and do not interfere with the general effect, a cane in point being the Long Walk in Windsor Park, where storm have made frequent gaps, and differences in the size of the trees, due to soil, may also be observed. Most persons, again, have their favourite kind of trees, and when planting, astarally wish them to be represented as much as ponible, whether the soil and situation are nuitable or not. While in mont caves, therefore, species which are evidently not at home may be avoided when planting, or removed when already present, there may be other cases where it may be worth while to take ome trouble in order to overcome unfavourable conditions of noil or situation.
How this may be done depends, of course, upon the conditions which it is desirable to bring about or to remedy, as the case may be. In many instances the situation alone is at fault, either through its cold exposure or inclination to the sua. The native habitat and characteristice of growth of introduced treen require careful consideration-more so, perhapa, than they usually receive. Oar summern are, an a rale, highly favourable to the growth of all kinds of trees; bat our mpringe and autamna are too treacherousand ancertain to enare the aninjured growth of the young shoot in the former, and its proper ripening in the latter season. To this fact alone mach of the non-saccess of our introductions may be traced, as when either of thene conditions repeatedly fail, the free growth and characteristic form of the tree are dentroyed. Mont of the Conifers are shallow rootern, liking plenty of moisture both in the air and toil, providing that in the latter is not atagnant. This is enpecially the case with the genera Picea and Abien, both of which are montly nativen of mountain regiona with cool and moist climates. For wach trees, hot sad dry situations are quite unouited, and on coils of a generally dry nature, cool and hady situations should be given, either on a north slope, or where they are shaded by other tree from the morning and afternoon oun. By reaton of it deeper root system, the genus $\mathbf{A}$ bies is better able to withatand drought and urface drynes. The tendency of the membere of this genas to commence growth before the spring frosts are over, however, rendern a cool situation denirable in thoir cave siso, usles thelter be provided in the shape of aurronnding treen. Pinem, on the other hand, uaually etand drought well, and aucceed on dry, gravelly will, with thorough drainage.

## Ayelioration of the Soil.

Where it is evident that the ail is to blame for the failure of a particular pecie, the question arises as to whether it mechanical, or chemical nature is at fault. If the first-named, the necensary alteration may often be mado by the addition and intermixture of clay, mand, leaf-mould, \&c, with the natural soil, according an tenacity or poronity may be ite predominating feature. Conifern being whallow rootern, the preparation of the woil to \& moderate depth will be wufficient; and if a mall area be dealt with at firat, it can be gradually extended an growth of the necenity for this will be a good indication that, when once thoroughly entablinhed it may bo found to accommodate itwelf fairly well to it will be
roundinge, and further help may be diapensed with. The warmth and moisture of the coil can also be regulated to a great extent by drainage, rough stone drains, a foot or 18 inches below the arface, being sufficient to aërate the soil, and prevent atagation. The chemical nature of the wil is perhapi the most difficult to alter withont going to considerable trouble and expense. Trees often fail because some inimical compound, or an excersive proportion of some element, such as lime, magnesia, iron, or an organic acid, is present, than on account of the absence from the soil of one or more of the necesuary constituents of plant-food.

The excessive proportion of any elemant can be nentralised by the addition of lime or leaf-mould, according as the excess is acid or alkaline in it natare; but as thim in only practicable on a amall ncale, the nitimate result of auch work in rarely eatisfactory. However carefully a patch of soil may be prepared, the roots are sure to push out beyond it, and get into the anfavourable soil beyond. In such casen, it is only waste of time to plant trees which are evidently anaited to the soil, and only a careful choice of specien will have astisfactory reanits.

Both on dry and shallow or on unsuitable soils of any kind, much may be done by malching or topdressing the surface to modify or contract unfavourable conditions. Almost any kind of loamp or leafy soil, old garden refuse, or turf parings will do for this purpose, and if the known preference of the tree for a particular soil can receive attention, mo mach the better. The soil ahould be lightly worked into the surface, but not so much so as to disturb the roots to any great extent. Mulchings of leaf-mould or whort grase are alno uneful in retaining moisture, and improving the mechanical and phyaical condition of the soil. Oa lawns or place where a neat appearance is of consequence, these top-dressings matt be confined to trees whose branches weep the ground, otherwise the lawn will be broken and unnightly. This can be aroided, however, by removing the tarf sad old aurface soil to a depth of a few inches, and replacing the former after ome good, new loam has been added.
There is little doubt that the fremnena and vigour of all apecimen trees might be greatly increased by the timely addition of suitable soils and composts to the surface, instead of leaving them to take their chance of growing, lingering, or dying, A. C. Forbes.

## Nurgery Notes.

MESSRS. T. RIVERS \& SON, SAWBRIDGE. WORTH.
Probably frait gomsip is never indulged in more freely then in the monthe of September and October. The varying condition of noil and climate have raised and depressed our hopes alternately many timen during the seaton, but now the result is no longer the erbject of apeculation or anxiety-the time has eome when congratalations may be offered. Much labour has been lately required to harvest the fruit, and the produce alreedy making itself felt in the frait-room is proef that the proaent weason has been a favourable one-nt least, there are few fruit grower who will be diaposed to complain in regard to it. A week or so ago the visitor might have seen an excellent crop of Apples at the Sawbridgeworth nurseries of Messry. T. Rivers \& Son; and Pears alno, though fewer in number, are a fair average crop, and the frait is good. Plums have not borne anything like the crop they did last season, but then the yield was enormons. Althongh thin in an aspect of these nurneries that may be less interesting than the inspection and stady of the young fruit trees of every description that are being grown for distribution, it is one worthy of remark in pansing, because in a measure it nhow Mr. Rivers' faith in fruit-growing for profit. To the objection of the inveterate grumbler, that aurserymen prodace the trees, attempt to create or foster a market for them, by inducing others to plant them for proft, bat oho find it more
easy to grow trees than their produce at a proakt, Mr. River might say, "But I practise both ; mach of the land that can be spared is planted with treen in ordinary orchard method, for the very parpose of supplying frait for marketing." Mr. Rivers is indeed a market-grower as well as a successful nurseryman and fruit raiser. Another fact the visitor may notice is, that in the matter of varietien, and especially in the case of Plume, thone which have been planted for the above purpore are to a very large extent varieties which have been raised from seed by Mr. River himelf, or his late father.
Tarning from this part of the business to that of fruit-tree raising for distribution, the culture in only auch as might be expected ander the direction of a firm that has been long known for firnt-clan fruit culture, and for extraordinary reault, in the raining of needling varieties of fruit.

Apples being rightly regarded as the mont important of domestic fraits, are grown in very large number. Different formed trees, suitable for orchard cultare, or for the garden, and even the suburban villa garden, abound, and the training they receive, whether the tree are intended for orchard atandard or halfo atandarda, garden pyramids or bushen, or for planting at the foot of walls, as well as the differently trained espalier treen, is such as has been found by long and wide experience to be best, and the young trees look well and healthy. It is hardly needful to nay that all good atandard varieties are included in the collection, but in addition to these there may be seen a good seedling variety named Rivers' Codlin, excellent for cooking parposes, of large size, attractive colour, rich in flavour, and firmer in fleh than Codlins in general. The fruit can be uned from September until December, and the tree ir a good grower. Early Rivers, which is recommended as an improvement apon Lord Suffield, and Rivert' Farly Peach, almont nimilar to Irish Peach, bat rather earlier, may be mentioned.
Pear treen are looking in the best of health; many of the youngeat tree have made quite average. growth, others are little horter, owing to the discouraging character of early summer. Taking the promise at the end of June, however, with the actual facts in September, the result is marprising. The pyramidal system of training is very popular at applied to Pearn, and numerous good examples of thim atyle are noticed, but for many kind no training is more antiafactory than the bush. Amongat an excellent lot of trees intended for walls and espaliert, Cordon looked very fine. In June these treen are looked over, and the more robust shoots atopped to four or five buds, leaving all others intact. Early in October all the shoots are praned down to three eyen. Such is the pruning that Mr. Rivers' har found succemaful. Some of the seedlings raised at this nursery are among the beat kinds in commerce and include Conference, Fertility, Dr. Hogg, Beacon, and Magnate. Dr. Hogg and Beacon require to be double-grafted, bat with this attention they give abundant atisfaction.

Plums can only be placed second in importance to Apples, and the growth upon these', was oven better than that on any of the fruit trees if we except Cherries. Mr. Rivers has raised numerous varietien of Plums, asd all of them are well known for their value. Of densert varietien we need only mention Grand Dake, Late Rivern, Monarch, The Czar, and Early Favourite; and of kitchen varietiel, Earls Prolific, Late Prolific, Sultan, Autumn Compote, Blue Prolific, and Bittern. Early Tranaparant Gage is earlier by about ten dayi than the old Transparent, but fruits of Golden Transparent sud Late Transparent were atill hanging, and lucious rich fruits they were. We were hown'a new variety upon neveral young trees, at prewent without s name. The frait were quite hard, will riper in October, and being like Monarch in appeasance, but longer, the value of this seedling may bo considerable. The flavour is described av good, and the stone very free. Cherrien, we have alresdy remarked, looked atrong and well. All fruit ingide and out has been long gatbered, but mention
deaerven to be made of Early Rivert, a seedling raived by Mr. Rivers, and one of the very best for market, and for a general crop in July, or in orchard-honses a month earlier. Apricots are grown almont exclanively for planting against walls, or as bushe in pots, and an excellent lot of the latter were of slendid appearance.

Peache and Nectariner, an everyone know, receive a large ahare of attention from this firm, and treen of mont kind are prepared for planting in out-of-door positions. Damsons, Rasperries, Qainces, Crabs, Strawberries, Gooseberries, Carrants, and Nats are all looked after, but we must pass from the out-of-door department to orchard-house abjects.

## Fruit Treis in Pots.

If favourable term are used in describing the general condition of the trees outnide, and the nuccess of the methods of culture adopted there, what must one alay when peaking of the orchardhouse trees here? How highly must we praise the pyramidal Peach trees in pots, the Apples and Peara in pota, and the marvellous pot Vines. Here we are dealing with the apecialtie of the firm, and with culture that is frequently imitated, but has never been arpassed in any other place. Let us look at a couple of excellent epan-roofed house fall of pyramidal Peach-treea, really pyramidal in shape, each shoot as regular as if placed, yet as perfect in its way as the old-fashoned pyramidal Azaleas that were trained with such precision. Of courae, the fruit-tree has hoot all quite free of each other, bat the regularity of the growth, and the altogether anique appearance of thone trees from 8 to 11 feet high, must be seen to be believed. Then what cropy they carry! A tree of Salway was still ungathered, the fruits being not yet ripe, and upon this apecimen there were about seven dozen fruits, and of good quality. It may be useful to remark that these trees are potted into two-thirds loam and one-third decomposed manure, and they are afterward top-dresed twice during the season with kiln duts and horse-dropping. None of the trees are rooted through inte the bordern, but they have all a mass of fibrous roots at the top of the pots, attracted there by the arface dresings. These roots are treated as annaal, and if the plant is not to ba repotted the following season, they are taken away, and as much of the top-soil removed an poanible, and freth added. On the otber hand, if the tree is to be repotted, it is taken out of the pot, and the ball reduced by about one-third by a special tool; and unlens it is to be grown on to larger size, it is then put back into the ame pot, which is well cleaned and thoroughly drained. In this way it in remarkable that trees are kept in robust health and capital bearing condition for years and year.s. It is very interesting to view the original plants of many of Mermin. Rivera' seedling Peaches and Nectarines, much as Lord Napier and other that have been in commerce many years, yet the original aeedlings bear freely now in pots. The list of Peaches raised from seed by Mesern. Rivers is far too long to be given here, but we are indebted to this firm for many atandard varietien and the Nectarines, with mame origin, are almot as numerons, and include Rivera' Orange, Spencer, Lord Napier, Stanwick Elruge, Pine-apple, Hamboldt, Albert Victor, and last, but first in importance, Rivern' Early, raised by Mr. T. Francis Rivers, and certificated in 1892. It in said to ripen twenty-one daya before Lord Napier. Already thim variety ha become well distributed, and Mesers. Rivers are preparing an immense atock, as the value of the variety deserven. Trees of all sizen, in pota, of Peaches and Nectarines, and trained in excellent manner as far as they have grown, were noticed. On Applen, Pears, and Plume, we cannot now dwell, but all of them are well done.
A large house of joung Fig trees in pota we would mention in order to recommend this crop to thone who have never tried Figs under mitable condition. There is no more prolific erop, or one which will better repay labour and expenae, providing the frait is liked. Plenty of heat, mointare,
and air, with nome method of restricting the roots, and a simple method of proning, which convists chiefly in thinning the shoots out by removing the leat desirable ones altogether, and a little stopping of groms growth during summer, constitate aatisfactory culture. We have only briefly mentioned the Vines in pots for forcing early next season. When these are seen, the fact that their culture has become pecialiwed here is comprehended at once. It in not tafe to quote figares, but momething like 3000 have been grown this seanod, and the well-ripened, hortjointed, atrong canen tell their own tale, and are their own recommendation. Math more that we might say of this eatablishment must be omitted; our notea are already longer than we had intended.

## METHOD OF VENTILATING TOMATO-HOUSES.

A NEW ventilator, designed by Mr. F. D. Woolf, Severn Nuruery, Shirley, Southampton, for use in early Tomato, Vine, and other houses, in illustrated by the following figures:-


No. 1.


No. :
Fig. 69.-a vemtilator for marly forcing-houbrs.

No. 1 represents the front view of the ventilator when fixed to the hot-water pipe, and shows perforated front 18 by 6 inches, through which heated air passes into the house.
No. 2 represents the back of the ventilator when fixed, and showa an aperture 9 by $2 \frac{1}{3}$ inches, throagh which the cold air pases from No. 3 .
No, 3 has one end fized into the outside wall of the house, from which a brick is removed, the other end passing through the opening at back of ventilator shown in No. 2.
The cold air pasaes through No. 3 from the open into the back of ventilator, and is heated to the temperature of the house before pasaing through the perforated front ahown in No. 1.
The ventilator is made in sections, and can be applied to any exiating house baving a service of hot-water pipes near the front wall of a lean-to and both walle of a epan-roof house.
The patentee, Mr. F. D. Woolf, Severn Narsery, Shirley, Hants, claims that by it use a constant and efficient circulation of warm air can be maintained night and day at all seasons of the year, and that it will prove of great worth es a preventive of dinease in Tomaton.

## ARISTOLOCHIIA ELEGANS IN AFRIOA.

Abistolochis elegans, Maters, wat first dencribed and figured in the Gardeners' Chrowicle ( n . a., xxiv. (1885), p. 301, fig. 64), from a plant cultivated by Mr. William Ball, who introduced it from Brazil. Dr. Masters atater, in the place cited, that the plant is a native of Rio, where it was collected by Glaziou ( $\mathrm{n}, 13,163$ ), whone specimens are in the Kew Herbariam. He also goes on to say:-"It is ningular that, so beantiful a plant, native of woll-known a botanical diatrict, mhould not previounly have been introduced or dencribed."

But it would appear not to be netive of Rio Janeiro, or even of the province of that name, notwithstanding the epecimens in the Kew Herbarlam labelled "Environs of Rio Janeiro." It is now well known that many of Glazion's pecimen labelled thus at Kew are from distant provincea, and mome are from cultivated plantu. Besides Glaziou's apecimens there is one at Kew, undoubtedly of the same apecies, from the distant interior of Brazil. It is labelled: "On the Parana, $26^{\circ}$ to $27^{\circ}$ S. lat., D. Parodi." This was received at Kew early in 1883, but the apecimen being a poor one, wat not recognised by Dr. Mattern, or more probably not seen by him.
Ariatolochia elegans is then, in all probability, at home on the banke of the Parana River, nome 700 or 800 miles wentward of Rio Janeiro. It is true that Parodi's specimen is doubtingly referred to this pecies in the Botanical Magazine ( t .6909 ), but I see no reamon for the doubt.

The most remarkable fact in the history of this plant is to come. A few daya ago Sir John Kirk, who has lately returned from his special mienion to the Niger Protectorate, brought to Kew specimens and seeds of what struck him as a highly-ornamental Aristolochia, which he collected near the landing-place at the mouth of the Bran River, W. Tropical Africp. It was so unlike any Arintolochia in the herbariam from Africa, though from a locality where one would have expected it to have been collected before, that Sir John Kirk was questioned as to the probability of it being introduced. $H_{e}$ replied that it was growing plentifully in the grass, and had every appearance of being indigenous. At'firat it seemed likely that it had been introduced with ballatt from Brazil ; bat if it is a native of the interior only of the latter country, this explanation eeem: hardly sufficient. On the other hand, it is exceedingly unlikely that it is a native of Africa and Western Brazil. There is little doubt that several American plants have reached Weat Africa accidentally, and have become so thoroughly naturalised as to have every appearance of being at home. Is this one? W. Botting Hemeley.

## STRAWBERRIES.

As far at blooming was concerned in these parte, it has been a marvellous year; some of the large Strawberry plantations were more beautiful than usual, and where they were fortanate enough to get rain, there must have been \& paying produce, while in othere, the long drought serionsyy affacted the crop. It was so with my garden, there being no rainfall for weeks, and so the large quantity of blossom set badly, and in most instances, the plants auffered, and the fruit wan deteriorated.

I am induced to make a few remarkr, after reading Mr. G. Wythen' note on the sabject. My soil is a light atony one, resting on gravel, \&c., therefore dry naturally. It aita British Qaeen, and the plant not only grow atrongly, but thin year threw up an immense quantity of flowers, and though owing to the hot dry weather a namber "went blind," still I had a good crop of fairly large deliciously-flavoured fruit, and fine in colour-bat now comes the carious part to notice. Mr. G. Wythes calls the Britiah Queen a late sort, and yet it ripened some of the berries before and equal with the Vicountens Hericart de Thary growing in a bed adjoining, while the latter was not half the size, and of decidedly worse quality. I have dug up the whole bed. I never cared for it never found it equal to some athers, and whall not plant this rariety again. It is over-astimated. Another good Strawberry generally, Vicountens, this year would not grow out, though the fruit was by no means amall; still, the drought and heat had ach an effect, that the pointe were not only not coloured, but absolately dry and hard, and even green in some cases. Still, as it is unally a good bearer of richcoloured, well-flavoured berries, I have left it for another year. Now of Waterloo. Az to ite worth generally, I may any I like it much, and it has done well, the fruit being delicious. One thing I may mention is this: I have known persons able to eat thie variety without the inconvenience that has too often ariaen after partaking of Sir Jowaph

Paxton, Sir Charle Napier, and nome othera. However, this year "Waterloo "was fairly burnt up. It broiled in the san, and was nearly useless. I think it is an uncertain "doer," and want the zoil and wason " juat right," and then, in my opinion, it is diatinct, well worth having, and by its peculiar flavour, "atanda alone." Of thil I have made a fresh bed, and hope for better things next year.

Now I come to another nort, "White Knight." This neem: to be a capricious variety, for Mr. Ban. yard, and ame others, have taken it out of their catalogue as "useless." And yet with me this grew atrongly, bloomed freely, and bore mome very fine, excellent, and well-flavoured berries. Everyone that tasted it wanted more, and I may add that it was quite equal to, if it did not arpass, British Queen. So pleased am I, that I have planted several more rowe. The colour is a light bright vermilion on the munny side, the reat a bluch to clear white, with white fleah. Perhap the reason and ail both suit ; but however that may be, it wan "very good," and early.

Of coarse, for next year I have put in a few plants of Royal Sovereiga, also Laxton's Latest of All, A. F. Barron, and a sort I have generally found worth growing, Sir Charlea Napier, bright, handnome and usefal; and a seedling of mgown, with very ugly berries, bat of excellent flavour. It is covered closely with seeds, and dull in colour, bat with rich red palp. Is a very atrong grower, and hardy, and I like it. My object in writing is to point out that asoil, position, and seasons vary so much, is it not well to try some sorts that even have "a bad name" an delicate growers, and amongat thene are wome of the best, such as British Queen, Dr. Hogg, and with me White Knight? Harrison Weir, Sevenoaks.

## Home Correspondence.

A BUNDAY MORNING AMONG THE WABPS. Oa the afternoon of Saturday, September t, there came ach a raid of wasps (Vespa valgaria) into our Peach-cases, making auch an onslagght on our P'eache and Nectarinew, more enpecially the latter, an almot to threaten their peedy diampearance, that made me resolve when Sunday morning came to gather the fruit. I am almost ashamed to confens that by the time we got there the an was already high in the meridisn, and oar Peach-case very mach more in possession of the enemy than it was the evening before. So firm and multitadinous a footing had they obtained, that it was completely out of the question to attempt to gather fruit with any reasonable degree of afety. There was no time to lose, and it was evident that if any of the fruit was to be saved, the enemy would have to be dislodged. Therefore to this end it occurred to me that I might treat them to a done of "XL All" vaporiser. Two of these famigatorm were procared, lit, put into position, and the house shat ap as closely as we ponibly could. We atood afely outaide, excoedingly interented, watching through the glane the gradual discomfiture and final death in this lethal chamber of thone hostn of wasps. It was curious to note how, when the wanps found there waw nomeflew wildly againat the glase, and finally dropped dead. There were sliso in the houve a number of blue-bottle flies (Calliphors vomitoria). Thene fought againat the nicotine fames mach longer than the wasps, being evidently much stronger or lens sensitive in their respiratory organs. On this point, some entomological reader might kindly throw some light for our edification. Whilst looking on, I observed one of the vaporising-pans was about empty, and beng desirous of continuing the vaporining a little longer, I went in, passed to the far end of the house ( 75 feet), where the bottle containing the ensence of nicotine had been left; by the time I got back and poured some into the pan I had more experience than I cared for of its potency. It got into my nose and throat, and made my eyes ras with water, so that I was only too glad to rash out into the fresh air. Needleas to ang, that after this We gathered the fruit comfortably, nor way it a bit the worse for the vaporiving fumen which had so Combe Abhey, Sept. 13.

FRUIT-TREES ON OUR HOUSE-TOPS, - Yfour recent leader on thim subject recallamany afte portion this direction made through a considerable portion proved so abundantly nuccessful, that I advocated roof culture of frait strongly in many directions as a early means of paying the rent of cottages by cultivating the enlarged areas and improved sites over our heads. For one striking advantage of roof culture is that the most grasping landlord can hardly charge any additional rent of the tenant for clothing his roof with plenty of frait, and thus dorning his property with higher beauty. As you, however, very properly observe, tenant need greater, longer security of tenure and against disturbance, as well as simpler, easier means of obtaining compensation for anexhausted improvements before they can be expected to invest mach money or skill in adding to the value or bearty of other people's property. In most of the raral districts where coarses of lectures have been given on fruit calture, the more intelligent of the working clanses are becoming experts, more or less, in frait, vegetable, and flower-growing. And what with continuationclasses in all directions, in which horticultare and agriculture may be taught and horticaltare adopted, as a subject for praise and pay in all our elementary choole, it may be hoped that every householder or his children will soon be sufficiently taught in the mysteries of plant life and the secrets of successful calture as to be able to make the most and bat of his small holdings, allotment gardens, and housetops. The latter, though so seldom tarned to practical and profitable account, are by no means the least important. It may sarprise some to see vegetables named in connection with roof cultare or clothing. Bat sarely our warmest aspects are admirable for Tomatos, and jast the place to waken them up out of the sleepy disease if anything can do it. And the Aubergines, or Egg-plants, seem coming in at last. Who shall say how soon they may atartle the natives by growing their useful eges of all shapen, colours, sizes on the house-tops. How grand and gorgeous our Marrows and Gjurds would look on our house-topn, while scarlet and other runners would have garland of bsanty, as well as send down bushel of sweet plenty from the ame coign of vantage. Those who have seen and melt the indescribable medleys of fragrance and beaut ranning wild on house-tops from llosen, Honeysuckles, Jasmines, Clematis will hasten to clothe their roof with flowers. Profit, however, may bo githered, as well as pleasare, from $\mathrm{Q}_{\mathrm{a}}$ wers on roofs. Covered with Maréshal Niel or other Tes Roses, sach as G orye, Wm. Allan Richardson, Nipheto" climbing Davoniensi, Howè e, \&j, house tops might be covered and coined into gold. Then as to fruit. Oar roof are so varied in size, so differens in aspect, that the whole of them may be closted with fruite of some nort from the lascions Giape and Fig to the winesome Pium and the acid Morello Cherry. Hardiest for the north and east, tenderest to the south and west. Apples, Pears, Pama, Peachen, Nectarines, Apricote, Giapes, Gooneberries, Carrants, Blackberries may all be mounted and marshalled to good purpose on or over the roofs of our dwelling-houses, factories, stables, cow-sheds, and other baildings. Of coarse, the lower the bailding the nearer the roofs are to the ground, and the easier it is to reach them. Rjof may also be posted so much and no completely in the teeth of the wind that only the hardient plants could grow to mach or any good progreas. But on average roofe, most of our fruit grow to profit, certainly into verdure and beauty. Certain cantions, however, are needfal to command succeas. Carefal selection of varietie for localities, and for house-top sites. Skilful preparation of atitable root-rang. Tae raining of the trees from 6 inches to a foot clear of the roof, 9 inches is a good average. Otherwise during scorching hot days on house-tops. leaves and fruits alike will often be scorched. Pears, Figs, Grapes, Plame, are particularly liable to this on summer and antumn days, without a speck of cloud from dawn to dark. There iv yet one more danger, and that is from catting draughts on house-tops Oa the sidel or ends of prevailing cold or strong winds a deal or pine shelter should be run ap from the roof to the level of the fruit trees or bushes, flowert, \&s. I observe you advocate protectiun for Fig trees on roofy. My experience is that they are far hardier, afer, more fruitfal without it. The \%aro frots of last Fubruary, and the ad havoc it has made among fine outaide Fige, has not modified my opinion; for my lateat observations show but little difference between the prenent itate

Figs with and without protection through February. Bat what difference there is weam in favour of the out-of-door Figa that have had no protection for years. Our roof and wall Figs in the open under rational treatment, that iz, a starving regimen, suffer lens from the frosts of winter, however severe, than the chills and changes of epring. And everyone will admit that the protected Fig finds itself in a very much worse vital and physical condition to contend with our erratic aprings than the unprotected one, which ham already withstood the winter in the open. D. T. Fish.

THE CHIBWICK VEGETARIAN LUNCHEON. - I notice in the Gardeners' Chronicle, September 14, a menu of a "vegetarian "luncheon given at Chismick at the last meeting of the Royal Horticultural Society. In looking through it, I find such thing as egg, cheese, and batter, not to mention milk and caken. Now I alwaye like to learn, and although I know that somg fowls make better "layers" than othern, and might consequently come under the care of the National Carnation and Picotee Society, atill, will nome one kindly inform me how they (the fowh), cown, and goats flower, and the best way to raine them from seed or cutting. W. M.

DOUBLE DAI8IE8.-The chief cause of the neglect of these hardy flower in spring bedding, is no doubt their average lateness in blooming. Could anyone introduce a variety that wonld begin to bloom from the middle or end of March onward, then a great gain would sealt ; commonly they begin to flower from the middle or end of April, and are unally at their beat during May, that is too late for balbs, most of which bloom in April. No bedding plant for producing a carpet of colour can be better than is the blood red. The Giant White and Mottled are also effective. We can easily have Myosotis dissitillora, our earliest Furget-me-Not, which should alway be raised from seed, in bloom throughout April ; also coloared Primroses, selected early Violas from old plants, Aabrietias, Arabin, Doronicam plantagineum, and mome other pretty hardy thinga, and to have Daisies as month later it annoying. If there were not summer bedding exigencies, it woald matter lest, bu? where thow exiat, then Dainies are too late, A. D. [The plant reverts largely after a few years, if not su much in regard to colour at least in doubleneas ; and althongh
double" frower, the whole of the organe of propagation are not muppressed, hence the plant fill the flower-bed with seedlings which of itelf becrmen in time a nuiarace.

OAK-GALL AND OAK.APPLE.-In latit wel's answers to correspondents it is s:ated that thete terms are syonymous. Of c;arse, an Oas-apple it an Out-gall, yet I venture to think that a diatinction is commonly drawn from a popular point of view. Tias spongy ()ak.gall (produced by Terse terminaliv), sacred to the menory of King Charler, is the the Oak-apple, whereas the hard round gall (prodaced by Cgnip Kollari). which first appeared in thin country about forty yeara ago, is more asually called the Oik-cail, althjugh not unfrequently also deignated () sk-apple. Morenver, there are many native kinds of Obk-galls which would never be calld Osk-applen. Your reply was right, and it was wrong. It all depend apon the nature of the query, or wais was intended thereby. R. McLachlan. [Oar corfepondent's inquiry related to the Oak-apple, as wo thought, but the wording was not too clear on that point. ED
peaches and nectarines on the opeh Wall.-Dring the past few years we have heand much leas than formerly of failares of Peachas and Nectarines on open walla. It is not so long ago the ciy went up, and I believe there were many gana dener of the opinion, that owing to adverse a pach it was not worth the trouble to caltivate the Peach on unprotected garden walle. Whether or not thero was generally in the wouth any reason for this opinen being held, I am enabled to vouch for the correctuen of the atatement that for the last twelve years, worth two or three exceptions, the crops at Merawity of have been exceptionally haary, and the quach trets the fraits good; and, on the whole, the Peach or, in have cropped an well as Pear and Ap le treen, onest fact, as any other kind of fruit grown in gardens. I can see no reason why, with ordang attention, the same should not continue. Ose nain however, is certain; it is of no use dependiag bab old trees for throwing good crops of frait; bided young trees of good varieties, if well alt good to, will afford, ia the majority of yeart, good
resulf. Ia the lem favourable part of the country a full south aspect is necenary, and the latest varieties thould be discarded, the frait not ripening atiefactorily, excepting in warm gardens. Here I may mention we have 420 yards, 210 yards in each atretch, facing ronth-east, and which never gets any an after 2 P.M, and it is from the treen on these walle that the beat fruite are gathered. One of these wall is planted with the trees on the level, and those on the other on a raised border. Tho etrees which are planted on the level border alway do the best, keeping freer from insects, and requiring len water at the root and overhead ayringing-in fact, it in aeldom that water is artificially applied; neither do we mulch the roots with manure, but afford a good aprinkling of poultry-manure, carefully pricking it in during the early apring. This dreasing benefits the trees wonderfully. Thin training is another point of importance which is practised, so that the wood, not being crowded together, gets well ripened. I always diabud very gradually, extending the operation over many week. Very little pruning is required, and the tree suffer no check. Thanka to Memars. Rivert, we have now many good early and late varietien of Peachem and Nectarines, which prolong the eason considerably. The early American varieties have several points in their favour. Waterloo and Hale' Early are very useful fruits; that valuable variety, Rivers' Early York, follow quickly, and Early Lonise ripens at a useful time, while Alice and Condor are not to be deapised. The best of the mid-neason Peachem are Dgmond, Royal George, Stirling Castle, Grosse Mignonne, and Gonhawk. Noblesse, Royal Charlotte, Barrington, Gladatone, and Admirable are usefal to follow these. Of Nectarines, Lord Napier, Elruge, Stanwick, Pine-apple, Humboldt, and Pitmaton Orange are marvels of goodnes. Another early Nectarine, and one which, in my opinion, has a future, is Early Rivers, which ripens about ten days earlier than Lord Napier, which appears to be very free. The fruits are very luncion, and reamble those of Lord Napier. Peach treen require pianty of apace, as will appear when I state that some trees planted eleven yeare ago at 21 feet apart, now cover the entire allotted space and more, some being fully 28 feet acrons. When thene trees had been planted four jeark, I was advised to lift them, but as I was anxiou to get the wails as the trees grew they soon began to fruit with great freedom. That the Peach thrives and produces the beat fruit and keeps freer from insect pents when growing in a firm soil I have had ample proof. It is said by some gardeners no manure should be applied at the time of planting the young trees, bat this depends entirely on the nature of the soil. If it be poor, something should be added to encourage free bat not gross growth. Well-decayed manare hould at all times be incorporated with the soil, but should the loam be somewhat heavy, a lean decayed manure is better together with plenty of lime rubbish. All good caltivators understand the valce of drainage wherever these fruit are grown, and the amount of this ahould always be regulated in ac-
cordance with the nature of the soil. H. Markham, cordance with the nati
Mereworth, Maidstone.

EXTRAORDINARY 8INGLE LEAVEB ON THE Victoria reaia.-From the measuremente given in a recent issue of the Gardeners' Chronicle of leaver of the Victoria Regia in the Royal Butanic Society's Garden, Regent's Park, London, it would appear as though nome of the leavea upon a plant of the amme pecier growing in the Sheffigld Botanic Gurden are still larger. I have never seen a more vigorous plant, or one with finer leaves, the plant is growing is 28 feet in diameter, and even this width is innufficient for the leaves to develop fully, at they get damaged by being mueezed againat the sides of the tank. The surface of the water is entirely covered with leaves; the flower are large and numerona, and at the time of writing there are flower-bud in varions atages of development howing above the surface of the
water. To-day, September 24 , the largeat leaf water. To-day, Soptember 24, the largeat leaf mesarement, with a turned up margin $3 \frac{1}{2}$ inchen high, which given the full measurement of 6 feet $10 \frac{1}{2}$ inchen diameter. The next largent leaf is 7 teet 2 inchen. Then there are three of 7 feet 1 inch, and two of $\%$ feet; two younger leaves, each $6 \frac{1}{3}$ feet, and another $5 \frac{1}{2}$ feet. There are also upon the plant three malier onen. Four leaven have been cut from the plant, each of which meanured
upward of 7 feet in diameter. All the above measaremente were taken inside, withoat calculating the rims, which vary from 3 to 4 inches in depth. William Harrow.

THE CHISWICK TRIAL8.-I can quite underatand "A. D.'s" reluctance to abolith or reduce frivolous and unprodactive "trade" trials at Chiswick, and deal instead with what Mr. W. T. Thiselton I) yer, in his address, calls "fandamental questions," which he considers a noteworthy feature of modern vegetable phyaiology. The occapation of the committeen would in some casen, I fear, be gone. Mr. Thiselton Dyer's paper, of aborbing intereat, reads like a romance; and who knowe but that when "A. D.'s" Committeen rise to the occasion and perform aimilarly interesting and carefal work in the sphere of horticulture, we may yet live to read papert as en tertaining from Chiawick, where the material might, I think, in time be found. At present, many of the deliberations there are, to say the least, "drumlie," and one wonld not wonder if in the re organiaation contemplated by the Council, the committees come, in for some ahare of attention and
admonition. A "wake-up" might do good. We can imagine "the wrangle" over that Bean, and the "purposelens remalt" described by "A. D." The Cacamber pazzle in prospect, I do not expect much from. The fact is, raisers of new varieties of common thing depend largely for trade on their noveltien, and could no more get on without them, than the milliners and dressmakers could without conatantly changing fashions ; bat to prostitute Chiswick as an advertising medium to the businesa, because of "mo many claimant for honours being in the field," is too bad. Chiswick should and could elect and arrange it own work annaally if it chone to try, and hardly ever will keep its expenses within bounds, and its work up to the mark, till it adopts the plan in force in most well-conducted country eatabliahmenta, of forecanting and estimating the work beforehand. Some reatonable proportion, I submit, thould exit between the expense and trouble connected with the so-called "trials" and the realts; bat how does the matter atand? Take the 500 Phloxes, for example : of that number, the bulk, according to a contemporary, was applied by one member of the trade. A fraction of the 500 receivad three and two marks when the committee went over them last year, but the moat of the work
appeara to have been orting out the much larger appeara to have been sorting out the mach larger much alike." Is nuch game worth the powder to any one but the man who sells the plants? I poticed that no sooner had the committee done their work, than a report of it, bald as it wav, was at once prominently appended to the lists of the vendors who encumbered Chiswick with the trials--she partien mainly benefited. Nambers of the vegetables "tried " can only be proved by cooking. Were they teated in that way? If not, the verdict of the committee is not worth anything. Head.
Mi. A. H. AMEE's LETTER.-Permit me to ay that the "heckling" to which Mr. Smee propone to subject the Council on the Chiswick businets may, probably, cut both way, if peraisted in; and I hops, as an outaider, that the Conncil will apeak out without reserve, if forced, no matter what happens. I trust also that everything will be published for the benefit of that maltitude of horticultarists "throughout the country," who, we are told, are consumed with anxiety on the abject, but o which there is no aign, if we except the amall aection who are making all the fuse. Provincial horticultariats of all degrees take bat a languid and canasl interent in Chiswick at present bat they might be indaced to take more ander different circumatances. I am nure also that jou would greatly oblige your numerout readers by telling them precisely what the functions and powers are of the difforent "Coancils," "Boards," and "Committees," which we hear so much about. When Chiswick is reorganised, I hope there will be at least three competent and able men at the head of affair who will know how to conduct the businesy of the Society, and keep meddlers in their proper place. I have never been able to make out how the buninen of the Royal Horticultural Society was conducted but I do know that other businest concerns, involving much vaster interests, depend mainly for their auccens on the chairman, the wecretary, and the manager, with an occasional quoram, and who, while doing their duty, would certainly not brook that dictation from irresponsible Horticultaral Society seem to regard an their apecial
privilege. It in, no doubt, dreadful to think of what may happen if Mr. Smee hould be deprived of judge from Chiswick for local thows. But to reatore his confidence, I would advire him to take s trip to the provincial local shows anywhere, where he will wee the award dealt out bafore a diacriminating public, in a manner above muspicion, whether as regard "local influence" or good judgment. I await the Council' juntification of ite proceeding in regard to Chiswick, and 1 have confidence that it knowa what it is about, and hope it has a good acheme in view. $O$ it one thing I am confident, and that is, that the Council have nothing to fear from the general body of horticultarists throughout the conntry if it acts wisely and fearleasly. At present the reported general agitation and "indignation" is an ntter sham in my belief. Head.

BOUVENIR DE LA MALMAISON CARNATIONB AT EATON HALL, CHESTER.- Being in Cheater a the opportunity of visiting the garden of Eaton Hall. Mr. Barnes, the head gardener, himself kindly conducted us over the more interesting parts of the gardens. Amonget the many fing thing to be seen here we were particularly struck with everal house filled with plants of Souvenir de la Malmaison Carnations; every plant (and there must be several thousanda) was in perfect health-not a aign of disease or any kind of insect to be seen apon them. They are grown principally, Mr. Barnes informed us, to supply cut bloom during the London season. Sach a grand lot of plants as these Carnations were could with difficalty be fonad anywhere else. B. Ashton, Glossop Hall Gardens, Derbyshire.
geedsmen's trade marks.-There in an important point in connection with the need case that came before the Southampton magistrate last week that seem to have eacaped notice, for no reference is to be foand to it in the lengthy reports in the local papera. It is assumed that the plaintiff registered as a trade mark a certain device embodying the words "Shephard'a Kale" as applied to that particular seed, and the Patent Office have taken his money in return for a right, which by virtue of their certificate profesae to give him protection apon all parcele that he diatributes. The Kale gain. in popularity, and local farmers anve their crop for seed, some finding its way into the hands of another seed-distributor atill bearing the oricinal name. Many will asy it is atill Shephard's Kale, and no it may be, bat my contention is that when a trader goe to the expense of controling a specialty sccording to the law, he seems to be quite within his rights to do his atmost to hinder his name being hawked everywhere without some qualification attached that will show the bajer what he is purchaving; if not, what is the use of a regiatered trade mark at all? The need was never in his possestion, the crop may not have had the necessary care beatowed apon it, and although there may be no secret means adopted to keep it true, any one who has had to do with the eeeding of the Bramica tribe know how readily a variety will revert if not planted in a proper ituation, and rogued and re-nelected each season by expertt. To make comparisons of Sanguter's Peas, Wheeler' Imperial Cabbage, and Brown' Monarch S wede, is beside the question altogether, from the fact that the oldfathioned growers who raised thee varietie probably never had any idea of protecting their right under the Trade Marks or any other Act, and an a consequence, their goode are everybody' property. If there is nothing in "selection," will someone kindly tell me why it is the custom with all the beat houses in the trade to eupply what is known as "atock seed" when they require farmers to grow for them? Ask Menars. Carter or Satton if they would
allow any one of the Cabbage tribe to go out for from their private atocks! I have no knopwledge of the partios in this case, but these matters weem to me to require elacidation. Agri-Etorti.

RED-FLOWERED DENDROBIUMG. - I have read with interest Mr. C. Woolford' note at p. 337, with respect to the rare and almost forgotten Dendrobium arachnites, Rchb. f., which I have known ever aince 1887, when it flowered in the collection of Baron Schroder, at The Dall, Egham. Previounly, I had only known it by description. Whether the plant atill exists, and whether others are known, I cannot ay. Fortunately, all the dried material is not locked up in the Reichenbachian herbarium, though it cannot to anid that the species is yet adequately

Enown. Why Mr. Woolford hould have thought I am unacquainted with this species, I cannot imagine. It certainly has not crimson flowers. Reichenbsch called it "cinnabar-red," and anless my memory is at fault, "cinnabar-orange" would have been more etrictly correct. This colour occars in several others, though they are seldom seen in cultivation. My remarks referred to a "crimson-flowered" Dendrobiam, and the colour is repeated in the deacription. The phrase is not applicable to D. arachnites at all, which in colour is about as mach like $D$. sanguineam, a: Lælia cinnabarina in like Broughtonia sanguinea. D. angunineam is the only species yet known to me with blood-red flowers, $R_{1}, A_{0}$ Rolfe.

THE RETIREMENT OF MR. BARRON.-It is mach to be regretted that Mr. Barron's name whould have lately become the mubject of general conversation, and the Council so much censured for what may yet meet with the approval of all well-winhers of horticulture, and those apparently interested in the Royal Horticultural Society. Why all this warmth has been manifested is not quite clear to me. It should be borne in mind that the present Council has enjojed univeral confidence, and brought the Society to a mach better position, both publicly and financially, than at any time previounly, and for which I am grateful, as I think others should likewise be, I have been connected with every one of the Council, either in committee or else in some business capacity, and I therefore repose with all confidence, that when the proper time arrives for them to give an account of their stewardship, they will show how wrong it is to question their integrity; therefore, before a general condemnation is passed, I think it is only right we hould wait patiently for an explanation of their parting with their Superintendent, for in all probability that which is so bitterly complained of may have made the contemplated alterations abolutely necenary, and ultimately prove of great advantage to horticaltare generally. I am not in possession of any cabinet secretw, neither do I desire to shield the guilty of any wrong actions whatever, but it must be plain to all, looking at the useful and important work being done, and the amount of money expended by the County Councils and several colleges in various parts of the country, that our young men emanating from Chiswick and Kew are in great danger of losing prestige and position in the eyes of ladies and gentlemen requiring skilled gardeners. In my opinion, Chiswick should be, without delay, made a college for the highest attainments in horticultare, not only where youths are to be employed and instructed, but where profesional gardeners seeking nitustions shoald be centralised and be usefully employed; and when waiting for appointmente they ahould have the opportunity, daring that time, of atill further practising and seeing the highest clas of gardening carried out. Whenever a gardener is required, he would then be readily found, and a auitable man quickly engaged. It may yet prove that momething of this kind is in contemplation, and if so, I am of the opinion that great good is likely to follow. In my opinion, it is one of the most presaing requirements at the present moment for gardeners when out of ituations, particularly When their discharge is brought about through no faults of their own-that there whould be some horticultural centre for them to go to. Ladies and gentlemen also made aware of their being in readinen could pernonally wee and elect what they required. It pemi to me that Chiswick and Kew are where they might rery conveniently be of courses under wise regulatione I conaider this a project of great importance. At présent, when a gardener through the decease of his employer or other eventualities if under notice to quit, in all proFability he is more often than not 5 or 10 milea away from any town or city, he hesitates where he had better move to, and eventually take the nearest house-to-let. Now all depends apon good lack in advertising and his distant friends; nothing eomes at all aitable; time rolle on, and after awhile he find his hard-earned aavinga gradually dwindling, and in many cases a real good man at last is compelled to accept something quite different to his denervinge and requirementi. He gradually becomes forgotter, and after weelen of inactivity he gete disheartesed and diaguated with the profenion; above-mentioned gurdens neighbourhood of the for this purpone, gardeners womeme on foot of thone requiring gardeners would be within touch oftain requiring them, and would probably soon obtain auitable employment according to their
the Council to establish a kind of Bureau for professional gardeners, ready and capable to undertake the management of either large or mediam-aized places, at once if required, and which would certainly often be a convenience to proprietors. I would gladly double my ubacription, and no doubt many others would do the ame, to enable the Council to organise auch an institution an I have foreshadowed or anggested. It would be a boon to many. I am repeatedly asked for a certain class of man-and time is all important. After writing and commanicating with several men out of place, scattered about, I hear the place is filled, more often than not, by some incompetent person, because the skilled man was not at hand, or could not easily be seen, being so far from London; whereas, if engaged from such an institution, he would have a higher standing, and would also be independent of the narserymen, and would allow him to be far more free as to hin future dealings. Henry Cannell, Swanley.

By an advertisement in the Gardeners Chronicle I notice the Royal Horticultural Society of London is in want of a new Saperintendent, one having a thorough practical and scientific knowledge of all branches of horticulture. Salary $£ 200$ per annum. To an ordinary gardener this amount seems liberal, but to a acientific man I hould alay it is decidedly mall. A scientific education is not obtained without some considerable expense, either to the individual himself or to someone else. Self-taught men of conrse can be had, and men, like most gardenert, can be bad in any quantity to work for the mere love of it. Of the $£ 200, £ 50$ at least would have to go towards the rent of a decent house. There would be rates, taxes, \&c., in addition, leaving leas probably than $£ 150$ to live apon, not mach certainly to maintain a man and family, before the glaring light of a very exacting horticultaral world. Of the two, I hould much rather prefer the retiring-money offered to Mr. Barron, though, as far as yet explained, I fail to see the wisdom of a poor nociety retiring so strong, $n 0$ active, so practical, and wo horticulturally cientific a man as Mr. Barron on £180 a year. It will take the abacription of a good many Guinea Fellowe to make up this aum. Then there is the $£ 200$ for the new man=£380 in all. True, as Mr. Barr alya, there are rich men among the Follows, and one or other of these may come forward and ayy, "We will pay it all," but this much has not yet been offered, and until it has been maid, we are obliged to fall back upon the old proverb, "It is easy to be liberal with other people' money." Had Mr. Barron retired of his own accord, the probability is, they woald not have offered him so mach; nor do we know how much of this is what may be called solatiam or buhb-money, to keep the horticultural world quiet, and to bide the "inner council "over a piece of almost unpardonable work; and this to a man whohas done more, perbaps, than either any inner or outer coancil ever did to keep Caiswick Gardens together-at a time, too, when the Society had almont reached that tage of dismolation known as mors extrema. Mr. Burron's name and personality at that time mas a power in itself, and for any existence the Society now has, it owes to Mr. Barron-at any rate, when the Society' proceeding: were at the lowest ponsible ebb. That is the opinion we gardeners in the country had of it. Why now Mr. Barron ehould be turned out is a conundrum to ub. Well, Mr. Barron will retire with all honourr, carrying with him the sympathy and hearty good wishes of his fellow horticulturists; and when he thakes the Chiswick dut from off his feet, and walks out of those gardene, he will have a warm welcome amongot his many horticultural frienda, whether they be acientific or merely common-place practical. It takes all sorts of men to make up even a good-working horticultural community.: From my point of view, I thought a good practical man was what they most wanted at Chiswick. The cience of plant culture and botany is well cared for in the Royal Gardens of Kew with itm handsome national grant of $£ 21,779$ a year. Is the inner Council of the Royal Horticultural Society jealoun of it colomal neighbour? if so, and it perseveres to emulate, it may, in the near future find itself very much in the ponition of the frog in the fable. Mr. Barron induced me to become a Gainea Fellow. I derive no benefit from the Society. True, they ent I was not able of admiasion to their whows, of which I wan not able to svail myelf; and, by-the-by, I also get the Society's Journal of Horticulture, though I never could tee that a paper is mo mach better for being read before a Council than it ir when communicated to un through the mediam of the
many weekly horticultaral periodicals, through which it would reach us sooner, and be more widely diffued, Pity anything should happen to the Society in its preaent anique position, for without it and ita Drill Hall-a place I have never yet seen-what would brought there from wuch people as the Veitches of Chelsea, the Banyards of Kent, the Lainga of Stanstead, the Cannells of Swanley, the Pearano of Nottingham \&cc, amongst nurserymen. Then them are benides a tribe of gardeners locally plasted in and around London. To all these and sundry othern tho Society deals out its Knightian, Banksian and other
Bronze Medals, Certificaten of Merit, Vote of Thank,

To us gardeners in the country far amay, who have not a chance of even a look through the window, the farce is all the same-exceediagly
laughable. W. Miller, Combe Abbey, September 17
late otrawberries.-I have this day (September 22) picked twenty-three full-mized fruita of Vicomtesse Héricart de Thury, equalling in faspour the summer produce. I shall be able to pick agiin about twenty-eight more fraits from plants put ont last year. J. May, The Gardens, The Red Hone, Leatherhead.

## The Herbaceous Border,

## ASTER CORYMBOSUS

THis belongs to the mall-llowered nection; and $s 0$ amall is it that many persons might consider it ax insignificant plant, it being but $\frac{1}{\frac{1}{2}}$ feet high, It in, however, very unefal for mixing with othor flown of a larger and stiffor habit of growth, its aladar aprays lightening up and improving the appaanam of other things. It is a plant of easy calture in the herbaceous border. W. H. Divers.

## Ebitrichiom strictom (p.336).

This plant grows freely here, coming up whew seed was dropped the previous eeason; and, anlike E. nanum, there is not mach fear of loning the plant when once it gets eatablished. It is mad admired for its pretty blue flowers, and is uefal or catting for filling vases-for effect by daylight-whem Myosotir is not obtainable. I may have it under the wrong name, but it was grown at Kew lant remos under thin name, and seed of the plant is also offend for sale by several English firmu. The scent of the flower approaches, in my opinion, that of the Woolruff (Asperala odorata), but it is less powerful. Wi Ho Divers, Belvoir Castle Gardens, Grantham.

## Obtuary.

Hermann Stenaer.-Hermann Stenger, foro merly a familiar figure in the horticultural world, died anddenly at him residence, 33 , Chancellor Bond Weat Dalwich, on Monday, the 23rd inst, ab age of aixty-meven years. A native of Erfurt, old of the principal contres of the nursery and nem induatrien in Germany, Stenger came to this coumty apwards of forty yearn ago, and firat took nerine under Mesmrs. Veitch at Exeter. He was aben sequently traveller for Messars. Veitch at Cbeaum and then for Messrs. Henderson of the Pine-applo Place. For a short time he was associated in parto nership with Mr. Herbst at the Kew Road Narlerian Richmond. Following apon this, he becamel, manager of Mears. Jamen Carter \& Co's nurn yens at Foreat Hill, and afterwards, aboat twenty ago, he entered the wervice of Meara. Co , reprenenting that firm in thir country, Buis after four or five years' service, the wlow pardim that had been coming for some time, render filas quite helpless in the legw, and for the lar imite year, or thereabouts, his travelling has boon, he wis to a wheel-chair. In apite of his affliction health, and, thankn to the great liberality of Mouts. Vilmorin, he ended his day in comparative comath

Iaidore Vervaet. - The death of thit ith known narae
announced.

## SOCIETIES.

## ROYAL HORTIOULTURAL.

Great Exhibition of Britibh-qqown Fruit at the Caybtal Palace. September 26, 27, 28.
This Show was oprutd by the Sheriffi of the City of London, Alderman and Sheriff Samuel, and Sheriff Hand, who drove down to the Palace in State, and were received at noon by Sir Trevor Lawrence, the Preaident of the Royal Horticultaral Society, and memberi of the Council, and condacted over the Exbibition.
A gardenere' Inncheon nabsequently took place in the Grand Saloon, the Preaident of the Society in the chair. The loyal toats were duly honoured, the President referring, amid applanas, to the fact that Her Majesty was a patron of the Society, and took a deep interest in its welfare, as evidenced by the magnificent diaplay of hardy frait from Her Majeaty's gardens. The Preaident, in giving the health of the "Sheriffe of the City of London," asid they were in hopes of having the Lord Mayor present with them that day; bat an they were all aware, hia lordehip had been engaged in an exhauting eerie of enjoyment and dimipation in France. However, in the absence of the Lord Mayor, they were very glad indeed to have the presence of the Sheriffe of the City of London, who had been kind enongh, not only to drive down to the palace, but to do $t 0$ in atate. They all knew what important duties the sheriffe of London discharged, and they were much obliged to the sheriff for being prevent. The senior aheriff (Mr. Samuel) mas member of the Gardener:' Company, and they welcomed him in that capacity, as well as sheriff of London. He believed they had that day shown the Sheriffs anch fruit as they had never aeen before, as he considered a finer collection of hardy fruit had never been tabled in any exhibition in the Kingdom. He need hardly aay how much they were all obliged to gentlemen from all parts of the kingdom who had been kind enough to contribute to the show. He was quite sure that the importance of fruit cultivation in this country would receive a very conniderable fillip from the how. He thought in this conntry hardy fruit which could not bo beaten in any part of the world. Referring to the correspondence which had been going on in the aubject of fruit drying, the Prenident aaid we in this conntry had never done much in that direction; that, however, was partly due to the fact that we did not readily combine for operations of that sort, which needed co-operation rather than individual effort. When there was a glut like there had been during the preaent year, and when there was a difficulty to find a profitable market for even good samplea of fruit, it woald be a great advantage if the surplus fruit could be dried, if only for domestic consumption. Recently there had been atatements made about the quantity of butter imported to this country, reprerenting about $£ 10,000,000$ annually. Whatever could be said about fruit-drying, there was no doubt What we could produce batter of the highest quality. When farming was no precarious, it did not say much for the farming classes if they could not compete with the foreigner in the matter of butter.
Alderman and Sheriff Samuel reaponded. He maid that, in juatice to their civil chief, he must tell them that his lordahip was that day attending meeting of the Court of Common Council, and he wan quite are when the Lord Mayor heard of the reception that had been accorded to the wheriffi, he would regret, as mach aa they all did, that he wae unable to be present with them. The City of London had always, by their guilda, taken a deep intereat in anything that could tend to the apremacy and the welfare of the country at large. It way one of the mont pleasant functions of the sheriffs to attend on auch occasions an the prenent to tentify by their presence how much they deaired to nee Britimh induatries flourith.
Sheriff Hsad propowed the Royal Horticultural Society. He dwelt upon the growth of the society, and anid there wae no knowing what would be the result of the next twenty-Give yeara' work if even only one half of the 3,500 Fellows did their level Thent.
The Preaident reaponded. He anid the Socioty Wedged hantiafactory condition, and win the scknow-

Kingdom. He bore testimony to the excellent work done by all concerned, especially mentioning the valuable services rendered by their Assistant-Secretary, Mr. John Weathert, in the regrettable absence through illness of their Socretary, the Rev. W. Wilken. The President thanked the authoritio of the Crystal Palace for their efforts to make the show a success, which he sincerely hoped it would be financially, and otherwise.
The Prenident next gave the toast of "The Jadges," and thanked those gentlemen for all they had so kindly done.
Mr, Dann, gardener to the Dake of Baccleuch, esponded.
Mr. Pearson, of Chilwell, proposed the toast of "The Press - Horticultural and General." Mr. Barnes, Standard, responded; and the proceedings. ended.

The Show.
The schedule is divided as follows: Division I. containing seventeen classey, for fruite grown under glase or otherwise, open to all. Division II.. inclading aix clasas, open to nurserymen only. Division III., containing twenty-eight classen, for fraits grown in the open air, open to gardeners and amateur only. Division IV., containing sixty-four claseen, for single dishes of fruit grown in the open air (amateurs and gardeners only). Divioion V., containing five classes for dried fraits, not preserved in fluid or augar, the fruit to Division VI. containing six classes, for which special prize were offered. Below we give a report of the first three of theas diviaions, and the other three, together with important exhibits by the trade, muat be deferred until next meek.

Division 1.
Fruits Grown under Glass or otherwise, oper.
The leading class in this open division was one arranged for a collection of twelve diahes of ripe fruit, not fewer than six kinds, nor more than two varieties of a kiud. Three exhibitors contended for honour here, and the successful one in obtaining lst prize was Mr. J. McIndoe, gr, to Sir Josepr Pease, Bt., M.P.' Hutton Hall, Guisborough,
Yorks. His three bunches of Foster's Seedling Grapes and Yorss. His three bunchos of Foster's Seedling Grapes and maston Duchess, and Dorennê Boussoch aimirable; Peaches, Golden Esgle and Exquisite, excellent in colour and size exeopting one, perhaps. in the dish of Exquifite, .hish
was not quite equal. Yollow Magnum Bonum Plums and was not quite equal. Yellow Magnum Bonum Plums and
Bryanston Green Gage were good; Figs (Brown Turkey) very good; and apple (Gascoigoe's scarlet) and Melon (Yorkshire Beanty) completed the collection.
The 2nd prize was taken by O. E. KEYSER, Esq.. Stanmore, Who had Black Alicante and Muscat of Alexandria Grapes, Victoria and Pineapple Nectarines, Thames Banly, and Sea Eagle Peaches, Brown Turkey Figs, a zeedliog Melon, and Hero of Lockinge Melon, a d a Ripley Queen Pine weighing 6 lb .10 oz . Plums: Golden Drop, and Pear Beurré Hardy, 6 lb .10 oz. Plums, Golden Drop, and Pear Beurre Hardy,
completed the exhibit, which wal good in general quality, completed the exhibit, which
Mr. Goodacre, gr. to the Earl of Habrineton, Elvaston Castle, Derby, was 3nd, and his fruits were of no mean quality. The collection of eight dishes, inoluding four kinds, and not more than two varietios of a kind-Pines excluded-was very well won by Mr. Aco. Regnolds, gr. to Messrs. de Rotriscimud, Gunnermbury Park, Acton, Middlesex, Gros Maroc Grapes with largo well-colourad berries, Musont of Alexand ris fairly good, but with a fow bad berries; capital Sea Eigle and Thames Bank Pesches, Pine-apple Nectarines, Sutton's al Melon, Ribeton Pippin Apples, and rather poor Coe's Golden Drop Plums wero included. Mr. F. Harris, Rr, to Lady F. Someriser. Ledbury, took 2nd position, in whose exhibit we remarked very commendable Gros Maroe Grapes, capital Golden Drop Plums, Pine-apple Nectarines, with high colour; and a very fine digh
of Gladstone Pesches. Mr. W. J. Empoon, gr. to Mrs. of Gladstone Pesches. Mr. W.
WINGTIELD, Ampthill, was ard.

## $G_{\text {rapes. }}$

Mr . Goodsore staged thoroughly good, if not extraordinary, Grapes, in the clase forsix distinct kinds, two bunches of each, and well secured first place. His varieties were Lady Downes, Gros Colmar, Musoat of Alezandris, one bunols, capital; Ban baroses, Mrs. Pearion, and Alicante. The only other comapetitor was Mr. Reymolos, and he took 2nd prize for Chasselas Napoleon, Alicante, Trebbiano. Mrs. Pince, Muscat of Alexandria, and Gros Maroc, all of good average quality.
Thres distixat kinds two buwches of each. -This clews was won by Mr. R. Grindrod, gr. to P. J. Priwhips, Req., Whitexceptionally large bunch of Black Alicante, and the berries also good and well coloured; but unfortunately some of the berries had been disfigured by rubbing. Two commendable bunctes of Gron Colmar were included, but the Lady Downes' were poof. Mr. A. Beleher, gr. to sir R. H. Barzutt, Bt. Cranleigh, surrey, was jnd, with moderatoly rood Grapes.
Black Hamburgh, thres bunehat-Mr. Wm. Taylor, Er. to
Borw, Esq., Forest Hill, London, was lat in this olaes C. Bornz, Esq., Forest Hill, London, was lat in thie olaes With modorately sisod buachees, of good quality for the date
of the mencon; 3nd. Mr. W. Merromense, Chilworth Manor. of the macon; Ind, Mr. W. Krroxule, Chilworth Manor,
Bomesy, Enity Srd, J. A. Toye, Enq., Oowly Hoce, Chert: ney (rio, Mo. Xomman). There wape four othlétatribe.

Madresfield Court, three bunches.-Mr. J. Day, gr. to C. J. Massex, Eeq.o Garliestown, won in these cineses, but he was very little before Mr. W. Taylor, gr. to C. Borek. Req.
Forest Hill, who had shorter bunches with much lerger ber Forest Hill, who had shorter bunches with much lerger ber-
ries. 3rd, Mr. J. Gibson. gr. to Earl CowLEy, Ohippenhem. There were four entries.
Gros Maroc, three bumehes.-Mr. J. Gusson won this olaes with very highly-coloured berries, and moderately sized come pact bunches. Mr. DAY was only a little behind him, and the 3rd place was secured by Mr. Newman, gr. to J. A. Tole Efq., Chertsey. There were five other entries.
Alicante, three bunches. - Three well-finished bunches stared by Mr. G. Reymolds, won in this clasa, but very much larger bunches lees pretty, highly coloured, but the berries small were staged by H. TıTE, Kaq., Park Hill, Streatham Common (gr., Mr. W. Howe), and a little disestisfaction was exprosed. The Brd prize treble came from Mr. J. Bury, Byfleet. There wers six other exhibits.
Ary other Black, three bunches.-Three excellent bunches of Mra. Pince (Black Muscat) won in this class, and were staged by Mra. W. Mitchell, Romsey, Hants. The 2nd prize was a warded to Lady Downes, exhibited by C. S. S. Dickers, Feq..
Coolhurst, Hormham, Susear (gr., Mr. A. Kemp); and the 3rd to an exhibit including an enormous bunch of Grosse Grillaume hardly finished, and exhibited by C. Boyer, Esq., Forest Hill (gro, Mr, W Taylor). There were five other exhibito.
Muscat of Alexandria. -The finest buaches in this clars, in which thare were seven entries, came from Mr. W. Tidy, gr. to W. D'ARCY, Rsq., Stanmore. These had fine berries, well finished. Mr. W. Taylor, gr, to alderman Ceapfin Batte, was 2nd with very large bunches, rather wanting fioish, and Mr. Empson, gr. to Mrs. Wingrield, Ampthill, was 3rd with amaller examples.
Any ether whte.-Mr. Taylor, gr. to C. BoyEr, Esq., Forest Hill, was well lst, haring splendid Buckland Sweetwater, the berries showing very fine finieh. Mr. Reynolds, gr. to the Messrs. Rotesichind, Gunnersbury Park, was 2nd with arcollent Chaselas Napoleon; and Mr. Robinson, gr. to W. LawRevier, Eeq., Sittingbourne, was 3rd with Buckland Sweet water.

## Tomitos.

These ware in wonderful form, there bsing ten lots of four varieties, though in some cases the likeness between so-called varieties was too discernible. Mr. Howe, gr. to H. TATE, Eeq., of Streatham Common, was let, with a rather large, but deeply-coloured Trophy, Frogmore selected, Hackwood Park, and Sutton's Perfection; Mr. A. Ryder, Orpington, was 2nd with very handsome Duke of York, Ignotum, Mayflower, and Trophy; Mr. Carbaway, Pulbrook. coming 3rd.
There were sizteen single dishes, Mr. Helman, Lewee, hqving the best in very handoome Polegate; Mr. M. C.
SANDERS, Tring, coming 2nd, with Ham Green Favourite and Mr. Richards, gr. to R. SUnmers, Rsq., Streatham, with Perfection was ard.
The clase for six olusters brought aine lots, of which Mr. J. Gore, Polegate, had the best, in good but not largo ones of that variety; Mr. Wells, gro to F. G. ARBLThiot, Req." Bexley, was 2nd, with the Old Red, oapital clusters ; Mr. J. Hirl, New Malden, being 3rd, with Conference.

Orchard-house Frutts.
There ware four large collections ahown in the clast for hardy fruit. grown partly or entirely to illuatrate orchard-house culture, although the bult seomed to have come from walls or the open. Here Mr. C. Bliok, gr. to M. W. Smith, Eeq., Hayes, was let, with fifty-four dighes of Apples, Pe rs, Peaches, Plums, Nectarines, Cherries, and all very fine. Mf. Potte, 既. to Sif Mare Collett, Sevenoake, was 2nd, also with very fine and somewhat similar fruit; Mr. McIndon, gr. to sir J. PEASE, Guisborough, being 3rd, with forty dishes, all good.

## Diviston II.-Nurserymen Ohiy.

The first prize for a collection of fruit trees bearing fruit in pots in this important clases, was won by Mesars. T. Rivers \& Sors, Sa wridge worth, who staged a magnificent collection of fruit trees in pota. In the centre was a pyramidal tree of Solway Peach which had borne upwards of eighty fruits, but come of which had fallen during transit. Then there ware well grown trees of Apples, includiog Wagener, Cox' Orange Pippin, Beauty of Kent, Peshgood's Nonsuob; Pears, Louise Bonue of Jersey, Parrot, Princem, Conforeace,
St. Lezin, \&k. Grapes, Trebbiano, Golden Queen, Blisok Alicante, Difecteur Tieserard, and White Tokay; besides Peaches, \&c., and other fraits.
Mesars. Geo. Buifyard \& Co., Maidstone, wase lat in the elass 19 for a collection of hardy fruity grown partly or an-
tirely under ales to illuatrats orchard-boves eultary. The collection wase staged on a table, in the eeptre of which whe some fruit trees in pots, carrying crops of good fruit, Applow. Baumann's Red Winter Roinette, Corniah Arometic, and
Rosemary Ruset; Poars, Beurré Suporfin, Madame Lyo Baltet; Figs, Violet Sepor, Brown Turkey, and others; also Poeches, Princes of Wales and Soa Eagle were represented in this manner. On the tables the fruits in dishos were of capital quality, and included Apples, Pears, Orabs, Figs, Peachees, Plums, and Grapes, of very high quality.
Memers. Gro. Bunyapd \& Co. atwo won let honours in the elaes for a collection of not more than 100 distinct varieties of hardy fruite grown in the open. The produce was exhibited in dishen and beskets; in the contro of the larger basketa wass Palm, and the eurface covered with a mound of Apples, while the centre-pieoe consisted of a cone of different coloured $\Delta$ pples, and rurmountod with a Dracman. The Appice, Pearw, and trant genernlly ware arcelleat, and wore etfectivily

Woroester Pearmain，Akera，Duehens of Oldenbargh，Mère de Menage，Lady Sudeley，Duchess＇s Favourite．Colville Ronge， Précoce，and others．
Clase 21 was for a similar collection of hardy fruit，to include not more than five variaties，and the lat prize was taken by Mr．H．BERWICK，Sidmouth Nurserie3，Devon，who staged a magnificent lot of truit．Apples，such as The Queen，Peas－ good＇s Nonsuch，Emperor Alezander，Coz＇s Pomona，Blen－ heim Orange，Cellini Pippin，Biamarck，Golden Noble，Wor－ cester Pearmain，and many others were large and excellently coloured．Pears of Beurré Clairgeau，Louise Bonne of Jersey， Souvenir du Congrès；Peaches，Plams，tc．，were alike good．
The best collection of fifty distinct varieties of Pears was won by Mr．J．Watkins，Pomona Farm Nusseries，Hereford， won by Mr．J．WatkiNS，Pomona Farm Nupseries，Hereford， who did well，considering the more difficult
There than Apples during the present season．
Tive collections in class 23 ，some very fine fruit being staged；and Mesars．Georee Bunyard \＆c Co．，nur－ serymen，Maidstone，were awarded the Silver－gilt Medal for a collection conspicuous for the fneness and finish of the samples，and theix brilliant colour．There were grand fruit of Mere de Ménage，Peagood＇s Nonsuch．Wamer＇s King， Bramley Seedling．Tyler＇s Kernel，Blonheim Orange，Bau－ man＇s Red Winter Reinette，Brabant Bellefleur，Swedish Reinette，Washington，\＆c．

Fruit Grown in the Open Air．
Difigion IIf．－Gardeners and Amateurs Only．
This fcomprised much that had great interest for those interested in Apple and Pear culture in this country．Visitors accustomed to see Apples of Colonial production，were found asking if the grand fruits staged were English－grown，and semed grateful that it was so．Many of the culinary Apples were very fine，and in not a few cases grandly coloured，and a feeling of exultation that such fine specimens were the products of Eiglish gardens was justifiable．
Cudinary and Dessert Apples．－In the class for eighteen dishes，twelve culinary and six dessert，there were eight com－ petitors．Mr．G．Woodward，gr．to Major Warde，Barham Court，Maidstone，was 1st with really superb examples of Tyler＇s Kernel，Lord Derby，Peasgood＇s Nonsuch，Stone＇s， Emperor Alewander，Belle Duboise，Bismarck，Belle Pontoise， Gascoyne＇s Scarlet Seedling，Washington，Mère de Ménage， Warner＇s King，and The Queen；of dessert varieties．Cor＇s Orange Pippin，Baumann＇s Red＂Winter Reinette，Wealthy， Ribston Pippin，King of Pippins and Cornish Aromatic，all grandly coloured，2nd，Mr．Geo．Goldsmith，gr．to E．G． LoDER，Esq．，Horeham，who had very fine Emperor Alexander， Cloria Mundi，Peagood＇s Nonsuch，Lord Derby，Mere de Gioria Mundi，Peagood＇s Monsuch，Lord Derby，Mere de
Ménge，Cox＇in Pomona，Bismarck，Cellini Pippin，very fine； Menage，Cox＇s Pomona，Bismarck，Cellini Pippin，very fine；
and The queen s and of descert varieties，Wealthy，King of and The Queen ；and of desoert varieties，Wealthy，King of
Pippins，Cox＇s Orange Pippin，and Ribston Pippin． 8 ra，Mr． W．King，gr，to J．Colmar，Esq．，Gatton，Reigate，also with With twelpo fruit．
With twelve dinhes，eight cooking and four desoert，there were fourteen competitors，Mr．T．W．Startup，Maidatone， Lard Derby frize with excellent examples of Warner＇s King， Lord Derby，Gascoyne＂s Scarlet Seedling，very fine；Peas Queen．onduch，Beauty of Kent，New Hawthornden，The main，Ribston Pis；and of dessert varieties，Mabbott＇s Pear－ Orange Pippin ；end，Mr．A．T．Krlick，Maidstone，who had of culinary varities，Lord Derby，Peasgood＇s Nonsuch，Bis marck，Graecoyne＇s Scarlet Seedling，Mere de Ménage；and of dessert，Worcester Pearmain，Bibston Pipin and Cos＇ Orange Pippin；3rd，Mr．W．G．Pragnell， Wiwarield Digex，E8q．，Sherborne Castle，gr，to J．K，D． was ehown in this clas．
There were sixteon competitors with nine dishes of apples， six cooking and three dessert．Mr．T．Turton，gr．to J．Hark GREAVES，Esq．，Maiden Erlegh，Reading was 1st，who had，finely－ finished fruit of Emperor Alezander，Mère de Ménage，Peas－ good＇s Nonsuch，Warner＇s King，Cox＇s Pomona，and Loddington Seodring ；and of deseert Apples，Ribston Pippins，King of Pipplas，and Coz＇s Orange Pippins；2nd，Mr．S，H．GoonwI． Warwick．also with capital frult of Peasgood＇s Nonsuch，Coz＇s Pomona，Blonheim Orange，and Yorkehire Beauty；and of demert fruit．Kung of Pippins and Worcester Pearmain；JoJ， Whin Grimdrod，gr．to B．S．Priluspe，Risq，Whitfield，who Ale tery the Peasgood＇s Nonsuch，Mere de Ménage，Emperor Culenter，and Warner＇King．
diblew．Mr．Woodwalid taling the let prize with magnix cent examples of Wamer＇King，Emperor Alexander，Kord Derby， 8 tone＇s，Belle Duboise，and Peasgood＇s Nonsuch．and Mr．S．J．Wright，gr．to C．Lase Campbell，Esq．，Glewstoa Court，Hertfordshire，who had very fine Warner＇s King．Peas－ good＇s Nonsuch，Lord Suffield，Belle Duboise，Lane＇s Prince Albert and Echlinville．3rd，Mr．J．E．Burton，gr．to Sir E． Phľ Back，Twickenham，who had very fine Winter Haw－ thornden，Lord Euffield，Peaegood＇s．Nonsuch，and Emperor Alezander．The best three dishes out of twelve competing collections came from Mr．R．C．SANDERs，gr．at Halton， Tring，who had wonderfully fine Peasgood＇s Nonsuch．Emperor Alezander，and the Queen．2nd，Mr．A．T．Krulick，with very tine Fensgoj＇s Konsuch，Warner＇s King，and one un－ Camed；3nd，Mr．W．Jones，gr．to J．R．Brovgrum，Eeq．e Omakilton．
Desserti Apples．－There were nine entries of six dishes．Mr． Wponwand again being lit，with the and superbly coloured
eazaples of Wuahingtom， examples of Wuahington，Ribitom Rippin，Red Winter Ropyge Précoce；2ud，Mr．G．Gorpsingloley，and Calville Pippin，Xizg of Pippins，G．Goldomuth，with Coz＇s Orange Adiais Rearmain，and Genvenathont Ruset．Riboon Rippiri

hree dishes，Mr．Atkins，gr，to C．S．S．Drckens，Esq．，Hor－ sham．Was 1st out of thirteen competitors，having excellent fruit of Ribaton Pippin，American Mother，and Cor＇s Orange Pippin，all finely finished；2nd，a collection which bore exhibitor＇s name，the varieties King of Pippins，Coz＇s Orange Pippin，and Rib
Dessert Pears．－Some very fine Pears were shown，though they lacked the relative size and finish seen in the Apples； the best aighteen dishes，there being four competitors，came the best eighteen dishes，there being four comperith Congrès，
from Mr．G．Goldsmity，who Souvenir du Duchesse d＇Angouleme，Pitmaston Duchess，General Todleben Sylvestre d＇Automne，Van Mona Leon le Clerc，Princess Beurr Alezander Lucas，Marguerite Marillat，Beurré Diel，Marie Louise d＇Uccle，Louise Bonne of Jersey，Madame Treyve Doyenne Boussouch，Maréchal de la Cour，Bearré Superfin， Doyenne du Comice，and one unnamed．2nd，Mr．WoodWARD also with good fruit of Durondeau，General Todleben，Grosse Calebasse，Pitmaston Duchess，Marguerite Marillat，Emile de Heyst，Fondante Therriott，Marie Benoist，Triomphe Vienne，Beurre Diel，Doyenne Bouss，Princess，\＆c．3rd，Mr Brockworth Park，Reine des Tardive，Princess，dc，Bra，Mr．
gpencer，gr．to H．C．Mortatt，Req．，Goodrich，Hereford－ Spencer，gr．to H．C．Morfatt，Keq．，Goodrich，Hereford
shire，who had fine fruit of Marie Louiee d＇Uccie，Durondeau， Doyenné de Merode，Souvenir du Congrès，and Bearré Bachelier．
There were eight exhibitors of twelve dishes．Mr．Cotterill， gr．to Sir W．GeュR，Tonbridge，was 1st，with good examples of Beurré Clairgean，Gen．Todleben，Fitmaston Duchess，Marie Louise，Maréchal de la Cour，Duchesse d＇Angouleme，Brock－ worth Park，Doyenné du Comice，Beurré Bosc，Beurre Super fin，Gansel＇s Bergamot，Madame Treyve，and Beurré Rance 2ad，Mr．W．Pragnell，with Beurré Clairgeau，Genera Todleben，Pitmaston Duchess，Marie Louise，Louise Bonne of Jersey，Marie Louise d＇Uccle，Beurré Diel，Doyenné du Comice Maréchal de la Cour，Beurré Superfin，and Winter Nelis；3rd， Mr．A．Offer，gr．to J．Warren，Esq，Handcross Park， Crawley．
There were seven exhibitors of nine dishes of Pears，Mr．J Gibson，gr，to Earl Cowler，Chippenham，taking the 1st prize with good fruits of Beurre Clairgean，Duchesse Angouleme，Pitmaston Duchess，Flemish Beauty，Genera Todeben，Triomphe de Vienne，Durondeau，Alezandre Lam bre，and Louise Bonne of Jersey；2nd，Mr．J．E．Buxton，who had Pitmaston Duchese，Flemish Beauty，Brockworth Park Durondeau．Louise Bonne of Jersey，Marie Louise，very fine and Marie Louise d＇Ucele；3rd，Mr．G．W．Jones．
With six dishes there were eight competitors，Mr．W Bawnister taking the 1st prize with Pitmaston Duchess， Madame Treyve，Maréchal de la Cour，Beurré Superfin，Marie Loaise，and Durondeau，all very finely coloured．2nd，Mr． Slogrove，gr．to Mps．Crawford，Reigste，who had Pitmaston Duchess，Doyenné du Comice，Triomphe de Vienne，Brockworth Park，and Doyenné Boussoch．Зrd，Mr．Riokwood．
There were eight exhibiturs of three dishes，Mr．G．Fen nell，gr．to W．M．Cazalet，Esq．，Fairlawn，Tonbridge，wa lst with Marguerite Marillat，Pitmaston Duchese，and Souvenir du Congrès；2nd，Mr．R．Edwards，gr．to G．H． Field，Esq．，Bushey Lees，Sevenoaks，with Doyenne du Conaice，Madame Treyve，and Pitmaston Duchess：3rd Mr C．Thompson，gr．to Messrs．W．\＆E．Wills，Hounslow．
Stewing Pears．－Thers were eight exhibitors of thre dishes，Mr．WOODWard taking the lat prize with Vicar o Winlfield，General Todleben，and Catillac；2nd，Mr．W．Cot TERELL，with Uvedale＇s St．Germans，Vicar of Winkfeld，and King Edward；3rd，Mr．G．Goldsmith．With a single dish Mr．J．Masterson，gr．to the Countess of CAMPERDows Shipaton－on－Stour，was jst，with Uvedsle＇s St．Germans．Mr J．Grasor，Chippenham，came 2nd，with Vicar of Winlfeld and Mr．B．EDWarda 3rd，with the same．
Peuches．－There were twelve collections of three dishes，Mr WOODWARD taking the lst prize with very good frait indeed of Nectarine Peach，Sea Kagle，and Princess of Wales．ind，Mr C．Herrin，gr．to C．M．Fortiescut，Esq．，Dropmore，Maiden head，with Sea Eagle，Barrington，and Walburton Admirable 3rd，Mr．J．McIndoe，gr．to Sir J．W．Pease，Bt．，Hutton Hall，Guisborough，with Golden Eagle，Princess of Wales，and Exquisite．The best dioh of any one variety of Peach was Barrington，from Mr．Richards，gr．to R．Summers，Eisq．， Streatham；Mr．Markham，gr．to Viscount FムLMOUTH Mereworth，was 3nd，with Princess of Wales．There was but one collection of three diehes of Nectarines，from Mr．Gold sMITH，who was awarded the Ist prize with unnamed fruit Only asi dith waiestaged in the clam for a dingle dish，and th first was quite unripe．
Plams．－There ware five exhibitors with four dishes of Plums，Mr．McIndoz taking the lst prize，with excellent fruit of Monarch，Golden Drop，Jefferson＇s，and Bryanston Green Gage；2nd Mr．G．Dey，gre to C．J．MAssex，Esq． Carliestown，who had Kirre＇s Golden Drop，Reine Clande de Bavay，and Lawson＇s Golden Gage；3rd，Mr．J．Masterson．
With one dish of dessert Plums other than Gages，Mr． Herrin，ar，to the Hon．G．M．Fortracue，Dropmore，was lst with very fine Coe＇s Golden Drop；Mr．Riclewood，gr．to Lad Freike，Twickenham，being 2nd；and Mr．Fennell，gr，to W．K．Cazalet，Keq．，Tonbridge，being 3rd with game wariety．
Mr．J．Day，gr，to C．J．Massex，Garliestown，had the beat lour disher of Plums，with Pond＇e Seedling，Goliath，and Victorfa；Mr．Molmpor coming 2nd with Pond＇s Seedling， Magnues Bonum，Monareh，ind Grand Dulie；Mi．J．Nowexk Abergavenny，was 3rd．
In the aingle dish clate of cooklog varieties，Mr．EMPsos was lat with fige Grand Duke：Mr．W．C．SunDFrie coming 2nd with Komuroh and Mr，Trheutr，Isleworth， 8 rd；with

Then in the single dish class for Gages，Mr．Hill，Mr．to O， W．ADEANE，Req．，Cambridge，was first with Reine Claude Mr．MCIndoe coming and with Bryanstone Gage，and M． Nowell was 3rd with Golden Gage．
Only two dishes of Purple Gages were staged，bat nether ecured an awar
Damsons were largely shown，the bsot three dishes coring from Mr．Frnvell who had Cluster King，and Prume varis ties；Mr．Killick，Maidstone，was 2nd with Prune，Fariey， and the Old Damson ；Mr．Royall，gr．to Major Dugban， Stourminster，being 3rd．The best dish of Bullaces cme from Mr．Tebbutt，Mr．Wells coming 2nd；and Mr． Feniell，3rd．
Cherries．－The best Morello Cherries ware from Mr．Mastal son，gr．to the Countess of Camperdown．，Shipston－on－Store Mr．Nowell and Mr．Day coming 2 nd and 3 rd
Nuts．－Mr．Turton，gr．to John Hapgreaples，Eg Marden Erlegh，was 1st for ten dishes，and Mr．J．Goonwi Mereworth，was 2nd with six dishes－fine Kentigh Cobead
Filberts being prominent．Mr．G．Hilman，Lewes，wa Filberts
Quinces．－There were fourteen lots of Quinoes，the bu coming from Mr．Mitoheli，Romgey，Hants；Mr．Kity to J．Colm

Tob comentimata）

［The torm＂socamalated tompersture＂indicates the agge gate amount，as well as the duration，of degrees of
temperature above or below $12^{\circ}$ Fahr．for the peried named：and this combined result is expresed in Day degrees－a＂Day－degree＂signifying $1^{\circ}$ continud fo an inversely proportional number of hours．］

|  | TEMPRBATURE． |  |  |  |  | Bamplit． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $80$ | AOCUSULATED． |  |  |  |  |  |  |  |  |
|  |  | $\begin{aligned} & \frac{0}{3} \\ & \text { 总 } \\ & 88 \\ & 8 \\ & 8 \\ & 8 \\ & 8 \end{aligned}$ | $\begin{gathered} \text { Below } 42^{\circ} \text {, for the } \\ \text { Week. } \end{gathered}$ |  |  |  |  |  |  |  |
|  |  | Day－ deg． | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | Day－ dog． | Day－ deg． | 10the Inoh． |  | Ins |  |  |
| 0 | $2+$ | 74 | 0 | ＋ 261 |  |  | 168 | $32 \cdot 0$ | 15 | 5 |
| 1 | $2+$ | 85 | 0 | ＋ 51 | ＋ 412 | 1 － | 138 | $20 \cdot 8$ | 35 | － |
| 2 | 2 | 99 | 0 | ＋ 203 | $+274$ | 6 | 133 | $19 \cdot 6$ | bl | 18 |
| 8 | $1+$ | 97 | 0 | $+134$ | ＋283 | 6 － | 113 | $16 \cdot 8$ |  |  |
| 1 | 2 | 98 | 0 | ＋ 148 | $+370$ | 7 － | 109 | $16 \cdot 1$ | 50 | O |
| 5 | $1+$ | 109 | 0 | ＋ 76 | ＋333 | 6 | 108 | 14.7 |  | 1 |
| 6 | $1+$ | 83 | 0 | $+124$ | $+384$ |  | 141 | 23：8 |  | $3{ }^{3}$ |
| T | $2+$ | 89 | 0 | ＋158 | ＋ 303 | 8 | 122 |  |  |  |
| 8 | $1+$ | 104 | 0 | ＋ 87 | ＋ 337 |  | 111 | $20 \%$ |  | 4 |
| 9 |  | 98 | 0 | $+67$ | ＋ 268 | 7 | 5 | 3.1 |  |  |
| 10 | $1+$ | 99 | 0 | － 13 | ＋ 105 | 6 |  | $34 \cdot$ |  | ${ }^{3}$ |
| ＊ | $2+$ | 188 | 0 | $+133$ | ＋ 248 |  | 125 | $16 \%$ |  | 4 4 |

The districts indioated by number in the firn oolnon ano


THIPASTWEEK．
THe following summary record of the weather throughoud the British Islands for the week ending September $2 h^{\prime}$ furnished from the Meteorological Office：－

The weather continued very fine and dry over the kingous generally，but a considerable amount of rain was again fill perienced in the north of Scotland．
ccurred in most other localities about the middle of the whe
＂The temperature continued above the mean，the ranging from $1^{\circ}$ to $3^{\circ}$ ．The bighest
registered in most places on the 18 th ，and varied from $96^{\circ}$ or $77^{\circ}$ in most of the English districts，to $66^{\circ}$ in＇Scothond， and to $64^{\circ}$ in＇Scotland，$N$ ：＇The loweat of the minimeter fal to $31^{\circ}$ in＇scotland，$W$＇， $33^{\circ}$ in the＂Midland Conatic to between $35^{\circ}$ and $40^{\circ}$ in moat other divericts：in the Islands＇the lowest reading was $48^{\circ}$ ．At the inl
the diurnal range of temperature was very large． The rainfalt excoeded the mean in sconater part of the Kingdom thether districts．Over the ＂The bright sunshine was again very prevalent in the osuible duration ranged from 71 in the＂Channel llan rom betweea 48 and siover England，the higheet per and to ouly 15 in scotland．N．．．．The migheet

## COVENT GARDEN, September 26

 [W0 cannot aooept any responsibility for the subjoined reporta. They are furnished to us regularly every Tharsday. by the findness of several of the principal for the quotations. It must be remembered that these quotations do not represent the prices on any particular day, but only the general averages for the weel preceding the date of our report. The prioes dopend apon the quality of the samples, the supply in the market, and the demand; and they may fluctuate, not only from day to day, but often eeveral times in one day. Kop,

Arume, p. 12 blooms Asters, English, per 12 bunches Bouvardias, per buï Camations, per 10 blooms
Chrysanthemuäs Cher 12 blooms Chrysanthemums,
per 12 bunches Eucharis, per dozen Gardenias, per doz Gladiolus, p. 12 sps. Lapageria, 12 blms. Lilium Harrisii, per dozen blooms Lilium lancifolium, per dozen bloom Lily of the Valley doz. sprays
daidenhair Fern Margueritem, 12 bn.

## ENQUIRIES.

"He that questionath much shall learn mweh."-BAoot.
Canon Teistaan, in his book on Japan, apeake in high praive of a creeping Pyran japonica. What is this? I never heard of it, and it is not mentioned in the Japanese narserymen's liats. $E$.

Lady-Gardeners' Assoclation in the Midlands. - A correapondent deairen the addren of this association. Can any reader kindly furnish it?


* Owing to the large increase in our ofrculation, 108 are reluctantly under the necessity of going to press some hours earlitr. Our contributors, who wall know what this implies, will kindly aid us by sending their communioations as early in the week as possins.
- Playts, Peuter ro me Nuwtd Cormatpontente *- Plants, Frutrs, TTC., To be Nasird.- Oorrespondente semding plants or fruits to be named, or asking questions to obtain an answor to thefr onquiries in the ourrent woeck. Specimens should bs good ones, carenully packod and mumbered, and not more than sixe should be sent at one thme. Locsics only, or Florists varieties oannot, as a rule, bs named.
Abhomeai Flower of Odontoglossun grande: H.C., Surrey. The apecimen ment coneiate of two flowers of Odontoglossam grande joined together on a fasciated stom. Both flowers are perfect. The occurrence is not uncommon, sad plants on which auch abnormal growth taken place are liable to do the like again. In some the peculiarity becomen fixed.
Addense Boos: $\boldsymbol{H}$. \& Son. There are two, one bsing published at the office of the Journal of Horticulture, 171, Fleet Street, E.C., and the other at the office of The Garden, 37, Southampton Street, Btrand, W.C.
Books: Aurst \& Son. Practical Forestry, by A. D. Webster, 2nd edition; published by W. Rider \& Son, Limited, 14, Burtholomew Clone, F.C. Price 5s. Twenty-one illuatrations. A much larger work treating of the scientific, as well an the practical aidea of Forentry, is Dr. Willism Schlich's Manual of Forestry. It in published in three volumes by Mesart. Bradbury, Agnew \& Co., 8,9, and 10, Bouverie Street, E.C. It is well illustrated, and is the atandard work on the anbject. A new edition of Brown's Forester hae also recently been publithed.-Sir C. S., Boynton. Fruit Cultwre, by J. Cheal, contains jutt the kind of information the gardener stands in need of. Publithed by Menars. G. Bell \& Sons, York Street, Covent Garden, w.c.
 premiam would be required. If you have no acquaintance with growern for market, you hould make une of our advertiaing columns. The butinean cannot be learned in leas than as many yaarn an you have been montha in it. "Rsad, mark, learn" hould be your motto.
Carnation: W.J. G. A monetronity known as the Wheat-ear Carnation, often figared in our columne. Ition not ever nocommon.
Dablias: J. Corderoy. The flowers sent are very aingularly marked; indeed we do not remember to have seen any quite like them. It in no anasual occurrence to have flower of disemilar colours on the wame plant in aingle and double-towered varietien, the Dahlia being much given to aporting You may be lucky in reproducing the parti-
coloured varietien from aeed, and fixing their characterm.
Donation.-Mr. A. J. Keen sende postal-order for 2a. 6d. as a donation to the Royal Gardenern' Orphan Eund, which we gladly forward to the eecretary, Mr. A. F. Barron.
Eabit Minoss and Cuetrumas: S. T. K. To deneribe is fall the various practices of caltivators woald occupy too mach of our space, and we would advise you to buy the manaal entitled Cwowber and Melon Culture for Amateure, by W.J. May, poblinhed if the Basaar Otice, 170, Strand, priee 10 .
Fir: L. Deves. The fly in Chlorops scalaris, the

Fur: Live feed in the struw of cereali. R. McL.

Grmasy Bakds for F'but Times: Joo. Cart grease answern very well. It ahould be meared on waterproof paper paseed three or four times round the stem. Brosd band of zinc with the apper part for the opace of an inch bent over at a right angle, if meared in the same manner, are an effectual atop for the wingles mombert of the Winter-moth. Meana thould be taken to prevent the grease ranning on to the bark; and the application of grease mut be renewed occasionally, as it tends to get hard, allowing the mothe to cros the band without hindrance. Pat the bands on early in the next month.
Hobsw-chestnut: $J, D$. Large and coarse thinge have often the prefix "horse" attached to them. The vensels of the lesfotalk are arranged in the form of a horseshoe. The nats are also supposed to be beneficial in ome diseases of the horse.
Inswcts: G.P. 1. The leaves of the Morello appear to be attacked by the grab of a saw-fly. 2. Grabe of the common cockchafer.-Interested. Wireworm are not at all particular an to whether the roote are sonnd or not.
Merons and Cucumbera: \&. T. K. The two varieties you mention of the firat-named fruit are suitable; jou might add the following:-Eastnor Cantle, Erogmore Seedling, Golden Perfection, Ganton Orange, Read's Scarlet-fleah, and The Coantens. Telegraph Cacumber, as yon nay, is excellent, so are Market Favourite, Tender and True, and Allan's Favourite.
Mina lobata: $W . P$. It is a half-hardy annual. It may be obtained of W. Thompron, Tavern Street, Ipswich.
"." The applications to name fowers, and supecially fruit are sonumerous at this season as severely to tax our resources. They readers have no idea. We are always willing to oblzge our correspondents as far as wecun, but the editing of the Gardeners' Chronicl: is our business, to which everything else must give woay. Correspondents are respsctfully requested to observe the rule that not more thas six specimens car be dealt with at a time. If more are sent, it woud be a qraeeful act on the part of the sender, to send also a small contribuion to the Gardeners'
Name of Fruits: D. W. C. McIntask. 1, Worcester Pearmain; 2, Cox' Orange Yippin; 3, send later; 4, not recognised; 5, Claygate Pearmain. - A. J. K. 1, Doyenné du de Bourdillin; 4, not recognined; 5, Mario Louise; 6, not recognised; 7, Conseiller de la Cour.-L. A. 1, Veralam; 2, Marie Louise ; 3, not recognimed; 4, Triomphe de Jodoigne; 5 ,
 1, New Hawthornden; 2, Lane's Prince Albert; 3. not recognised; 4,500 amall to be recognised; 5, Blenheim Orange; 6, Reinette da CanadaJ. P. 1, Lsae's Prince Albert; 2, Lord Saffield; 3, Cox's Orange Pippin; 4, Wellington; 5, not recognised; 6, Annie Elizabeth; 7, King of the Pippins.-W.R.F. 1, Tower of Glamis; 2, Emperor Alexander; 3, not recognised. Cherries: J. N. L. Eruit quite amashed, therefore not recognisable.-J. W. 1, Trumpington; 2, Ronemary Rasuet; 4. Damelow' Seedling; others an-recognised.-W.E.T. Pear Beurr' d'Amanlis; 2. Jerney Gratioli; 3, Lane's Prince Albert; $\mathbf{5}^{\prime}$ Landeberger R inette; 7, Pine-apple Ruaset; 6, Blenheim Orange, M. G. Wilford. 1, Dutch Codlin; 2, Collini ; 4, Keewick Codlin; Pear, a worthles sort, unknown.-G. T. Coles. 1 , Lord Gronvenor; 2, King of the Pippins; 3, Sam Young; 4, Benspool; 5, Court of Wick-A. Reid. 1. Lord Derby; 2, Forge; 3, not recognised.Tavistock. 3, King of the Pippini: 4, Lord Derby; 5, Golden Noble (?); 6, Bismarck. -Old Subscriber. Pears, 1, Doyenné Bousuoch; 3. Thompcon's: 4. Lord Derby ; 5, rottex ; Applo, 6, Stone'w. probably Baarre d'Amanlix -Jow 1, Mank, Codlin; 2, Eord Suffeld; 3, Yorkwhire Bearty; 4, Calville St, Sanveur;
Souvenir du Congros.
Names of Prants: Correspondente not anvoorsed in this issus are requested to consult the nest number.proetextum; 3, it a leaf of Oncidiam Joneaianam we should aty, although O. Cebolleta, a jellow apecies having aimilar lesven, is imported with O . Jonesisnum,-S. S. B. The flower is not of the apecien known in gardens at Catteya amethyaso gloma (C. guttata Privzii). It seem to be a mall form of C. Leopoldi. Some varietios of C. elongata (Alexandres) resemble thin, and it is ponible that yourim mat be that apecien, if $n 0$, the infloreacence will be carried up on a long stall. If you would

Averager. - Official statament of the average pricen of Sritish Corn, imperial measure (qr.), for the week ending 1895: Wheat, 22s. 7d Correoponding period in last year, 24. ${ }^{\circ}$. 1894: Wheat, 194. 81.; Barley, 2s, 5d.; Onte, 15s. $2 d$.
like the queation definitely mettled, kindly wend a fall-length inflorescence when it in fading. - $A$. $G$ 1. Smilax saper; 2, Arabie lucida variegata; 3, Sedam atolonifaram (ayn., S. aparium); 4, Myrtu cummanis (large-leaved); 5, Helianthemam var (Rock Rose); 6, Pyrus ap.; 7, Helianthus decapetalus multiforus-G. R. 1. Miltonia Clowenii 2. Cattleya Forbesi; 3, Hemanthas coccineus; 4, Aspidiam aristatum variegatum; 5, Casaarina atricta; 6, Pelargoninm grossularioiden, or a cros from it.-G. W. Cannia corymbons. Frnitnext week if possible,-F. W. R. Cratsegas aibirica, sometimes called eangrinea- - S. J. 1. Pandanas gramini folias; 2, Anthariam cordifoliam; 3. Hibiscus rosaainenais atriata pleas; 4, Saccharum officioarum (Sagar-cane), of far as we can jadge by tho ppecimen ent; 5 , Parietaria officinalia.-F. B. 1, Helianthus decapetalus multifloras; 2 Helianthuarigidus; 3, Aster nove-belgii ; 4, Helianthus latifiorut ; 5, Cyrtomium falcatum.- T. T., Leods. 1, female flowers of Catasetum purum; 2, Dendrobium secnodam; 3, Dendrobiam Leeanum; 4, Dendrobium Phalmopais, a very handsome and diatinct light form; 5, Odontoglonam specien of the 0 odoratum section, bat seemingly distinct.-A. M. Briston. A broken leaf of nome grase, with the zeed of some plant adhering to it. -John Dimmick. Salvis Horminum.-W. H. G. 1, Polygonam cuapidatam; 2, Helianthun multiforus; 3, Silphiam perfolistam: frait next week, if posaible.-H. $\boldsymbol{R}$. Kalmia avguatifolis.-EV. $\boldsymbol{H}_{0}$. C 1, not recognised; perhape Indigofera-2, Pyrola minor; 3, Melilotus officinalis, white variety.C. G. 1, Polygonum Fagopyrum; 2, Salvia Hor minum.
Nemesempar: E. J. You thould atiok to the business. The wages paid are not everywhere so low an you are receiving. Endeavour to better your position, advertiee, \&ce. We do not think that floral decoratore, unleat they have apecial abilities, are better remenerated than men in your branch.
Prate witi Pititigas at the Sunpace: H. S. W. The result of a check to growth, arising, probably, from the roote being in an unfavourable woil. Take up the tree and replant it on another site in loamy soil, a little manare, lime rabbish, crashed bone See that the drainage is good; or if too large for auccesaful transplanting, deatroy it, and planta new tree of another variety; putting a layer of chalk, 1 foot thick, rammed hard, coalahes or concrete below the roots at not lese than 3 feet from the surface. This should not be less than 3 jards square.
Psccan Nuts: J. B. A specien of Carya or Hickory, not grown in thid country for commercial purposen.
Prlargontcus: S. T. K. Obtain Mesarn. H. Cannell \& Son's Catalogae. It will afford just the sort of information you require
The Thref brst Lati, Fhee-bearing Cooking Applas: E P.B. Betty Geeson, Winter Greening, and Norfolk Bearfin (Beefin). These varietien will keep till June, or an long at Applen need to be kept.
Tomatos: S. T. K. No cure for the "apot" on the fraite of this plant. Remove all affected friit withoat delay, and barn them forthwith.
Vamesump Hor:iW. $P$. The Hop ie not an annual at leat, it is not treated as one in this country.
Tononawa Mifnamar Compary: Apply to Moware Protharoe \&e Morris. 67, Cheapeide, London.

Concuuricatrons Recerved. - W. W. (many thanks.) E. K. B.-Melville.-C. S. Go, Boston.-E. L.-J. K. a large branch ? - J. D. D . H . A. L , no cone received. Was it (mange thanks):-H. W. W. - W. W. - Bussia, Ochtertyre Williams \& Co. -W. H. P. (nezt week), -H. Joy. W. A. Ottolander. - T. - L. Laing \& Mather. - E. H. J. P. M. Ottolander.-R. I. H.-R. A. R.-A. D.-R. Nicholas ㅍ. W. W. W.-J. Anderson. - Wild Rowe. - R. D. - S. - F. C. S. - A. F. B.

[^33]
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(ESTABLISHED 1841)



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lands proferred. - SCOTSMAN, 98 , Wollingtom street, slough
 OURNEYMAN (Inside) - H. Fennell, gerdener to Lord St. Oswald, Appleby Hall, Donometer, with him eightoen months, to anyone requiring the above. UUNEYMAN, in a good establishment.Age 23; good Decorator, Grood referances from first-clam estabifshmenta.-M. V. SeALes, Vilue Nurseries, sevenolive

JOURNEYMAN, in good Establishment. Situation wanted by young man, age $22,{ }^{\text {a }}$ esbore.
years' experience. Can be well renoc mended.-HEAD GARDENER, Newlands. Teyaham.

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JOURNEXMAN, Inside, or Inside and OuT. be Age 20. J. THoMpson, Norton 8toke, Under Ham, woald experience. Abstainer.--Norton Stoke, Under Ham.
TO GARDENERS.-A young Man (age 18) or Nursery. Experienced Inside and out , Goon refer
IMPROVER.-Mrs. WrbB, Milford House, [MPROVER.-Mrs. Henry Ritson oan with confidence recommend William Wateon. Age 18; three
years' experlence. Bothy preferred. Woald pay small prejears experience. Bothy preferred. Woald pay small pre-
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GARDENERS.- Young man requires aituation, Inaide and Out. Soythe and Machine. Three
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ums, Pot Stuff, and general Nursery Work. - G. LUTMAN themuuns, Pot Stuff, and general
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No. 458.-Vol. XVIII.
$\left\{\begin{array}{l}\text { Third } \\ \text { Skrins. }\end{array}\right\}$

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## illubtrationb.

Dendrobium Phal
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Melon Earl's favourite

## NOTICE TO ADVERTISERS.

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CENTRAL AUCTION ROOMS and ESTATE OFFICES. 67 and b8, CHEAPSIDE. E.C. CATALOGUES FOR ALL AUCTIONS SENT FREE BT POST ON APPLICATION,

## Friday Next

THE SALE OF TEE SEASON
400 Lote of ODONTOGLOSSUM ALEXANDR $x^{2}$

## 40 Lote of CATTLEYA TRIANEI.

MESSRS. PROTHEROE AND MORRIS will SELL by $A$ UCTION, at their Central Sale Rcoms, 67 and 58 , Cheapalde, E.C., by order of Mri Aimé van den as Half-past $120^{\circ}$ Clock precisely
The pick of 30,000 recently imported PLANTS The pick of 30,000 recently imported, and containing,
without doubt, the finest masees and specimens ever put upat without doubt, the finest masees and specimens ever put up at a sale. Every plant has been carefully picked, abe none but the tinest are included. They are guaranteed to be orthe very best type-the same which has given such general satiefaction fineat varieties in existence have been flowered. Only large pieces; will be included in this Sale, and buyers wishing to acquire fine plants, should not miss this most exceptional opportanity.

##  <br> DRNDROBIUM VRNUS

melia anceps crawshayana, from the
Lselia grandis tenebrosa, Oncidium varicosum, Cattleya labiata ia sheath, C. Skinneri, and other ESTABLISHED DRCHIDS.

On view morning of Sale, and Catalogues had.

The Arboretum Nurseries, Wood Lane. Isleworth. MESSRS. PROTHEROE and MORRIS are instructed by Mossrs. Charles Lee \& Son, to SELL by
OTION on the Premoises as above, on MONDAY, Oct. 14, at 12 o. Clock precisely
5,000 ORNAMENTAL AND FLOWERING TREES including Limes, 10 to 12 feet; Planes, 12 to 20 feet; Labur nums, Purple Beech, Horse Chestants, 10 to 12 feet, Birch, Flowering Thorna, and Cherries; their beantiful tricolor Dogfoed, Curnvus ELEGANTISNIMA, Common Hollies, 2 to 4 viridis, 18 inches; and 0. Iute
3,000 GOUSEBERRIES and CURRANTS, best varieties; quantity of Czar and Victoria Plucas, 5 to 6 feet, bushy; Nut 3,000 RASPBRRRIRS, including Fictorio
ling. Fastolf, \&cc. A quantity of standard APPLES Cox' Orange, and other beet sorts; and Pyramid Apples and Pears 8 2,000 best Goldea, silver. and Green EUONYMUS, from Myrobalana Plumg, Rhubarb, Royal Albert, \&c.; 3,0c0 Quick, 24 to 3 feet.
500 dwarf H.P. ROSES, best sorts. A quantity of Azalea mollis and altaclarense, all well budded, from if to 21 feet; May be viewed. Catalogues may be had feet. at the Royal Vineyard Nursery, Hammarmith premises, and of the Auctioneers, 67 and 68 . Cheappide, London, E.C.

## Putney, S.W.

CLRARANCE SALE of well-grown NURSERY sTOCK, the ground having been taken for building purposes, by order

IEESSRS. PROTHEROE AND MORRIS will SELL by $A U C T I O N$, on the Premises, The Nurseries, Putney, near Putney Railway Station, on WEDNESDAY, grown NURSERY STOCK, in capital condition for and well consisting of 2000 Limes, with atraight stems and good heads 1000 Golden Privet, 1 多 to 2 feet; 5000 Green Privet, 2 to 4 feet 2000 Aucubas, II to 3 feet; 3000 Irish Ivies, in pots, 5 to 8 feet; 100 Standard-trained Peaches, fruiting trees, mostly Royal George ; Jarge Victoria Plums, fruiting trees; Standard and Pyramid Fruit Treen, Currants, and other Stock. May be riewed. Catalogues may be had on the Premises,
and of the $A$ uctioneers, 67 and 68 , Cheapeide, Iondon, E.O.


NOW NURAERY STOCK, bein exceptionally wellShe held at this Anrsery for many years, by order of Mr. Charles Koble including a portion of the unique collection Goldem RETMOSPORAS and HOLLIRy. SRLL by AUOTHON an the AND MORRIS will Sunningdale. close to Sanningdale Station, and within eary Tistance follo wiva DAYs, at on MONDAY, October 21, and NTRSREY STOCK. the whole in of anasually well-grown for remoral, comprising thou ands of Rhodocendres condition them a large number of unique Specimens and Standards surpased in the trade, and forming one of finest collections ever submitted to public competition. Several thousands of thousands of Berberis aquifolia, 10,00 oval-leaved Privet Conifers in various sizes, including Cupresers, Thuja, and a grond lot of penfect specimen Variegated Hollien, mang:
 Standard, Ornamental, and Fopplit Treowberries, Currants,
 itockiz, which will well repay a vientity to invited to inepect the May be viewed. Catalogree hat to these Nurberies, Auctioneers and Valuers, 07 and 68 , Chenp promion Londen, of the

Framield, near Uckfield, Sussex.
, miles from Uclifield Station, L, Bo \& S.

Ry., where GREAT SALE of ROSES, FRUIT TREES, and RHODODENDRONS, by order of Messrs. Wm. Paul \& Son. important to the trade.

MESSRS. PROTHEROE AND MORRIS will sell by AUCTION, on the Premises, Arches Farm, Frama'd, near Uckfield, on TUE Climy, October 15, at
half-past $120^{\circ}$ 'Clock, 15,000 Dwarf and Climbing ROEES, emo bracink the leading sorts of Hybrid Perpetuals, Gloire de Dijon, and other Teas; 100,000 MANETTI STUCKS, 6000 standard, Pyramid, and Bush APPLES, in all the most protitable kinds 6000 Standard PLUMS and DAMSONS, very fine trees; Pyramid PRARS, 1500 Hybrid and Ponticam RHODODENDRONS, TRIACA, 3 to 9 feet, quartered trees, all recently trans planted, \&c.
May be viewed. Catnlogues can be obtained on the Premiees, London, E.C.
Note. - The whole of the Stock is in splendid condition, and the Vendors invite an inspection by intending purchasers.
Messrs. William Paul \&e Son will carefully lift, pack, and put any lots on rail at cost of labour and materials.

WEDNESDAY and THURSDAY, October 16 and 17.
The SECOND and MAIN PORTION

## COLLECTION OF ORCHIDS

of the Firs, Lawrie Park, Sydenham, S.E.

MESSRS. PROTHEROE and MORRIS have received instractions from O. Dorman, Rsq, who is
giving up the cultivation of Orchids, to SELL by AUCTION
NRSDAY and THURSDAY, Oetober 16 and 17 , at half-past 12
o'Clock preciscly, without the least reserve, the SECOND and
MAIN PORTION of his well-known COLLECTION, com-prisink-
Odontoglosenm Alexandre the very beet varie ties, white and opotted
forma forms
Hybrids of exceptional of which many have received F.C.C. vexillarium superbum Cobogianum rubellum Dormanianum schroderianum pulchellum DormaniaRothsch
Rothschildianum
Humeanam
lyrogloseum
Maroshalimum liliflorum

* ${ }^{\text {cidium Mantini }}$

Pollettianum (see plate)
pyramidense (see plate)
macranthum
"o angustifolium
Lycaste Skinneri alba, several
plants
Anguloa eburnea, from the original plant
Leelia Perrinii alba (not nivea)
Cut pure white form
Cuttleja Arthuriana (hybrid),
only two plants in
existence
Cattleya Trianæi epeciona
" Mendeli spleadidissim
Alezaadre
Dormaniana
Lu*lia ancepa alb
". Wawsoni
Miltonia Moreliana atropur
purea
Cymbidium Philbrickeanum, with flower-spike
Coelis betla
Dendrobium nobile album nobilius
penduluman
pendulum
elegans
Sanderianum
Dormanianum
Loedsianum
splendidisaimum
enosmum leucopternna
Cooksmmil eucoptor
Cypripedium, many seedlings unnamed
Savageanum superbum eurymindram maguif cum Harrisianum superbnm Niobe
Bartettii superbus oucorrhodum, large spe cardinale

cardinale rubrum
orphanum
grande, eno
sravede, enormona apeci-
xaen
EHiottianum, grand ape alborpar spasimen purparatum,
plante
Sedeni
rand apecindidulum
Yests specimen
Schroderi aplendone Enormous rpecimen allieri Hyeanum, enor mous specimen
Mägdevallia Veitc flora

## Arminia

racemos Cronsii melanoxanth lephanticep cucallata
Harryana, Bull': Blood
Pleurothallis Roezlii, fine epe
ofmen, and many other
Onchids of value.
uetioneers, 07 and 68, Chsempide, Loadon, E.C.

In consequence Chilwell Nurseries, Notts, portion of their Nurseries, Mesers. J. R. Pe Lease, of will offer a portion of their Stock of Fruit Trees, \&c, b Auction, viz.:-30 000 ERUIT TRFES, compriaing 15,00
Standard Apples, for Orchards; 7000 Pyramid Standard Apples, for Orchards; 7000 Pyramid appla, in
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M ESSRS. PROTHEROE and MORRIS on Nurseries are if miles from Beeston Station, Yidhm. Railway, 10 minutes from Nottingham or Trent Jantime there being a frequent service of trains from both placu, on
THURSDAY NEXT, October 10 , at 11 o'Clock precient,

May be viewed. Catalogues may be had on the Premine and of the Auctioneers, Estate Agents and Valuers 67 and

## Lincoln.-Absolutely without Reserve.

IMPOBTANT TWO DAYS'CLEARANCE SALE of exceoding TRELI-gro
By Onder of Mesars. Penuell \& Song, who require a partion of the incrase

$\mathrm{M}^{\mathrm{E}}$ESSRS. PROTHEROE and MORRIS mill SELL by AUCTION, on the Premises, Bmacoutiby near Lincoln, about 2 miles from either of the Lincoln Rainm Stations, on THURSDAY and ERIOAY, Octobar 17 and 1895 , at 12 o'clock precisely exch day, without resarm,
portion of the exceptionally well-grown

NURSERY STOCK,
The whole of which has been carefully transplanted, and inm in first-class condition for removal. The \$tock compite 000 avergreens aud Conters, I to 1 feet, suitable lor baxe pots, and growing-on; 400 Specimon Conifers, 2 to 8 feet, the borders. These specimens have all been arown with grum 900 Green ard Variegated For immenediate effective plankin 1500 Green and Variegath Box, 1 to al feet; 300 new Golden Box, $1 \frac{1}{2}$ to 2 feet; ; 380 tarieties, is to 3 feet: 2500 oral-leaved Privet, 3 to 4 fot 1000 Standard Trees for Street and Avenue Plantiug: 100 At Negundo variegata, 5 to 6 feet; 1500 Flowering shrabs mid Forcing Plants 3400 Berberis aquifolia. 1 to 2 feet; 601 Dmar Roges of the bes; varieties, 800 Ivies and other Climbing Plants, Herbaceous Plants, 2500 Standard and Frramid App!es, 5-yr. Trees, al
Note.-The Auctioneers desire to call special attention this important Sale. The whole of the Evargreens have bee transplanted within two years, and have been allowed pleah of room, and bave also been pruned. The Standard Treas Mr atraight, and everything has been grown solely for a higt clans retail trade. Mesors. Pemnell \& Sons will undertate ti carefully lift and despatch any lots, charging only the coot d from the Lincoln stations to any part of the Kingdom without change of truck.
May be viewed any day prior to the Sale. Cataloguen be had on the Premises; at the Seed Shod, High street Lincoln; at Messrs. PENNELL 1 ND SONS' Chief Otica Seed Warehousas, Gowt's Bridge, Lincoln; and a Auctioneers.

Hollamby'm Nurserten, Groombridge, near Tuabids WELLS.
GREAT UNRESERVED SALE of NURSERY STOCR,
order of the Executors of the late Mr. Edwin Hollanis, ESSRS. PROTHEROE $\triangle N D$ MORRIS met SELL by AUCTION, on the Premises, as abore cridal. the Groombridge Railway Station, on THU RSDAY and 545 ,00 October 24 and 35 , at 12 o'Clock punctually each das, Laurels. Larch. Scot and other Rhododevdronn, stamf tranaplanted Quick, Hardy Climbers, Dwarfs, Climbing, al other Roses, the whole in uplendid condition for re
Seakale, extra strong for forcing, and other Scock. May be viewod any day prior to the Sale. Catalogues many 67 and 68, Cheapaide, London. E.C.

## Brixton, 8.W

CLEABANCE SALE of well grown healthy NURSERT SRO保, apecialy adapted for London and suburbara Fainat the Land into Lawn Tennis Grounds.

MESSRS. PROTHEROE AND MORRIS will 8 RLL by AUCTION on the premises, the loughbaroud Park Nurseriem, Brixton, S. W., near the Loughborough ghol, Station, on FRIDAY, Oct. 18, at Twelve O'Clock, 1000 Privot 3000 PLANRS, and POPLARS, 500 Boz Aucubas, 1000 Privh like Euonymus, 1000 Laurels, 800 Rhododendrons, Nurse so noted, including many very fine Treee, b00 Hardy May be viewed may day prior to Sale. Catalogue the premises

# A DEPARTURE IN THE NURSERY TRADE. 

CHARLES NOBLE has decided to OFFER, by AUCTION, the very cream of a life's selection of Specimen RHODODENDRONS, GHENT and other AZALEAS, GOLDEN RETINOSPORAS, GOLDEN HOLLIES, and Select HARDY TREES, from 2 feet to 10 feet high. SIX DAYS' SALE. Much of the Stock is Unique, and all in fine condition. SALE, OCTOBER 21, 22, 23, 24, 25, and 26.
Catalogues may be had of the Auctioneers, Messrs. PROTHEROE and MORRIS, 67 \& 68 , Cheapside, London, E C.;

## CHARLES NOBLE, THE NURSERIES, BAGSHOT.

## SALES By AUCTION.

Wednesday Next.
mportant consignment of bo cases of LILIUM HARRISII,

Comprising -
10 Cases extra large Bulbs.
${ }_{10}^{25} \because, \quad 9$ to 11 inches.

| 7 to ${ }^{\text {snd }}$ |
| :--- |
| 5 to |

$M^{\text {B }}$ SSRS. PROTHEROE AND MORRIS will sELL the above by AUCTION, at their Central Sale Rooms, 67 and 68, Cheapeide, Lond On view morning of Sale, and Catalogues had.

## Wednesday Next

4000 AERICAN PEARL TUBEROSES. Just received from the Cape Also 400 NARCISSUS EMPEROR.

MASSRS. PROTHEROE AND MORRIS will include the above in their SALE on WEDNESDAY October 9.
On view
On vew morning of Sale, and Catalogues had.

> Wednesday Next. ONSIGNENT of 60

FIRST GREAT CONSIGNMENT of 60 CASES of LILIUM LONGIFLORUM (Japanese), just received from Japan,
and comprising 7300 BULBS; for sale without the and comprising 7300 BULBS; for sale without the slightest reserve

MSELL the above by AUCTIOND MORRIS will 8ELL the above by AUCTION, at their Central Sale
s, 67 and 68 , Cheapside. London, E.C., on WEDNESDAY Rovens, 67 and 68 , Cheapside, Lond
NRXX, October 9, at, Two ${ }^{\circ}$ Clock.

On view morning of Sale, and Cataloguea had.

## Wedresday Kext.

A Consignment of PALM SEEDB, TREE FERNS, and ARAUCARIAS, 10,700 Received Direct, comprising :
0,000 Kentla BeLMOREANA
1,400
72 Plañts, ARAUTCERBURYANA

| 72 Plants, ARAUCARIA EXCRLSA |
| :--- |
| 20 |
| 24 |

MESSRS. PROTHEROE AND MORRIS will SELL the above by Altotion at their Central Sale
 On view morning of Sale, and Catalogues had.

## DUTCH BULBS.

GREAT UNRESERVED SAIES.

MESSRS. PROTHEROE AND MORRIS will SELL by AUCTION at their Central 8ale Rooms. 67 and 68, Cheapeside. London, R.C. EVERYY DAY. at $120^{\circ}$ Clock,
large consignments of NAMED HYACINTHS, TULIPs, large consignments of NAMED HYACINTH8, TULIPS,
CROCUS, NARCISSUS, and other BULBS from Holland, lotted to suit the Trade and Private Buyers.
Also Boman hyacinters, LILUM Candidum, snow DROPS, \&c.

## niew morning of Sale and Catalogues had.

## WEDNESDAY NEXT

IMPORTANT to GROWERS of DUTCH BULBS.

$\mathrm{M}^{1}$R. J. C. STEVENS begs to announce that he will hold a SPECIAL SALE of DUTCH BULBS,
 precieely, and will include-
a GRaND COLLECTION of ChoIOE HYaCINTHS. specially lotted for Glass, Pot, Bed, or Border Cultivation, comprising many of the best sorts, from a trustworthy LILIU
LILIUMS of sorts. Choice and rare NARCIgsus.

| $A$ great assortment of |
| :--- |
| $U$ |
| $8 F S$ |

TULIPS, CROCUSES, SNOWDROPS, SCILLAS in the fineat posaible order, fotted for all bayers.
ROMAN HYACINTHS, Aleo500 LTLIUM HARRISI. 1000 SPIR Tian ther raicties DIE
 PLANTH, \&c.

On view morning of Sale, and Cataloguen had.

## DUTCH BULBS—DUTCH BULBS.

fales nearly every day, in Large and Small Lots, to sult all Buyers.

MR. J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38 , King, Street, Covent cons gnments of Choice HY ACINTHS, TULIPS, CBOCUSES, NARCISSUS, and other BULBS arriving daily from well known farms in Holland, in the finest poseible condition

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## Birmingham.

DUTCH BULBS EVERY THURSDAY.

$T$HOMAS B. JAMES \& CO, hold SALES of First-class BULBS only, at their City Sale Rooms 35, Temple Street. Birmingham, at 11.30 A.M. Catalogues post-free.

## Birmingham.

THOMAS B. JAMES \& CO, will hold a Large SALE at their City Sale Rooms, 35, Temple Street, Birmingham, on THURSDAY NEXT, at Half-past Twelve
$0^{\circ}$ Clock, of ESTABLISHED and IMPORTED ORCHIDS, by o'Clock, of ESTABLISHED and IM PORTED
To Gardeners and Florists.-To be sold as a going Concern, FREEHOLD NURSERY FREMISES, being 26. Union Terrace, Mawson Roud, Cambridge, comprising small Dwelling-House, and Garden adjoining, with two 72 feet. depth 93 feet. Estailished 25 years. Rapidly increasing neighbourhood. O \#ner retiring. Half purchase money can remain.

To be SOLD by AUCTION by
MESSRS. CATLING AND SON, at their Rooms, Corn Exchange Stroet, Cambridge, on WEDNESDAY, Ootober 16, 1895, at 7 o'Clock in the evening.
Further partioulars of the Auctioneers, or of H. Barley, Feq. Further particulars of the Aumbeneas.
Solicitor, b1, Regant Street, Cambridge.

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Full particalars from THOMPSON, RIPPON ATM CO. Estate Agenta, Exeter.
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If desired, part of purchase-money can remain.
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CANNELL \& SONS would be glad to PURCHASE or EXCHANGE the following :-

| Primula obconica seedlings |
| :--- | :--- |
| Calceolarias, large |\(| \begin{aligned} \& Violet Madame Mill <br>

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Good, olean, and bushy staff, in $48^{\circ} \mathrm{F}$, at 4 s .6 d .
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Prizes amounting to 1095 , When Prizes am.
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Schedule of Prizes, and all particulars, may bodtain application to Mr. FRED. J. GARWOOD, Han. Sm in in Road, Leo, S.E.

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EREFORDSHIRE FRUIT and OZRYE
Te FOURTH ANNUAL SHOW will be held in the han Hall, Hereford, on TUESDAY and WEDNESDAY, ITomens and $\mathbf{8}, 1895$, when upwards of eloo in PRIZ 88 will bombur
for FRUIT and CHRYSANTHEMUMS for FRUIT and CHRXSANTHEMUMS.
Classes open to all England, and to Amatem, Mam
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RIGHTON CHRYSA NTHEMUX SEOTHTM NOVEMBER 5 and 6.
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SATURDAY, OCTOBER 5, 1895.

THE ROYAL SCOTTISH ARBORI CULTURAL SOCIETY.
$\top^{\mathrm{HE}}$ members of this Society went to Germany this season for their annual outing-perhaps the most notable excursion they ever made; but never before has so little been said about it. Is this beoause it was an unlearning lesson the members had to read? When the report of the expedition appeared in the Scotsman at the time, I was wandering in the over-thimned woods on oertain highland estates, and I out the articles oat, expeoting, however, to see more about it in the arboricultural papers, but have been disappointed. I therefore beg to append a few admissions from the Scotsman article, written apparently by authority. Many times and quite lately, the superiority of the German forests has, by members of the Royal Scottish Arborioultural Society, been attributed to difference of soil or olimate, or to the species grown, or to all three put together; but it is now gratifying to find the Society acknowledging its errors on these points. I begin with the following extract:-
"There are many way: in which Great Britain agreet with Germany in regard to the growth of treen. The soil in both cases is very much of the same character-sands, loamv, clays, and marla constitating the predominant types. The climate, on the average of the year, agrees very closely in both coantries as regards rainfall and temperature, the greater cold of a German winter being counterbalanced by the warmer character of a German rummer. And the trees caltivated in, or indigenoas to, the two countries show practically no difference as regarde apecies, the Spruce, Scotch Fir, Larch, Silver Fir, Beech, Oak, Birch, Alder, Sycamore, Asb, Sce, constitating the materials that the German forester has to work with just as at home
"Here (Germany) the woods are formed neither for beauty nor for game cover, bat for the prodaction of the maximum yield of the fineat timber. There is here, therefore, no inducement to over-thin the woode so an to encourage the development of the lower branchef; on the other hand, the trear are pecked elone at they will grow, with the rewult that long, atraight, bare pole are produced, whick posese abont as much beauty as ilamp-pont, but which farnish timber of fine fibre and clown prowth, which carpenters and architect lnow how to appreciate."
I decline to believe that there are neither beanty nor game in the Germany forests, for both are there-nor is there any force in the argament that either beanty or game are enhanced by overthinning, nor has Brown or the Royal Soottish Arboricultural Society erer advocated sevore thinning on any such plea; but probably the writer felt some trifling apology necessary and just pat it that way. Here is a hit about
a timber crop left for fifty years " uninterfered with by the hand of man," a plan some of us have often reoommended as preferable, at any rate, to the Sootch thinning praotice:-
"Saturday, Auguat 3, waa devoted to an inapection of the Oak woods in the neighboarhood of Freienwalde, a short distance from Eberawalde, and in some respecte this was the most enjoyable part of the whole excuraion. It was the general remark of the excarsioniats that the work seemed to grow in intorest day by day; but this feeling was probably indaced by the fact that sa time went on the members were becoming more familiar with the conditions of German forestry, and therefore better able to appreciate the reanits. The forest around Freienwalde is for the most part primeval-that is to nay, up till within the last fifty years or so it had been left uninterfered with by the hand of man. But now it is being gradually taken in hand with the object of regeneration, and as the woil is very rich, the Oak is the tree that is denigned for the dominant apecies. The older clast of Oaks are 250 to 300 years old, and average 120 feet in height, and 3 feet 6 inches in diameter. They are for the most part perfectly atraight and with very little taper, and were univereally acknowledged by all to be not only finer than any trees that the members had ever ween before, but finer beyond any conception of what was ponaible. The total quantity of timber per acre averages about 6500 cabic feet."
In oonolusion, it is worth remarking how rapid the change of opinion has been latterly on the subject of forestry practice - thanks, not so much to recent books, bat to discussion in the horticultaral and agrioultural papers, which have suggested the books. Nor will the attempt to saddle past failures on the owners of estates and the game stand looking at, for however much these may be to blame, it is a fact that forestry practice, and the choioe of species to plant, have been almost wholly in the hands of the foresters, whose advioe landowners have followed. A gentleman who owns extensive woods in the Highlands oalled on the writer the other day, and, speaking of his own woods, said they were next to worthless as timber. The trees were neither of the right sort, nor their timber of the right quality; and all, he said, beoause "we had not known any better-what to plant, or how to manage woods."
A question of some interest I would like to put here. There have been advertised for sale lately nearly 140,000 onbic feet of blown-down mixed timber of fair average quality on the Duke of Argyll's estate at Inverary, and another sale of only less extent at Finavon, in Forfar-much of the timber "exoeptionally good," and it would be exceedingly interesting to know what price per foot the different kinds of timber in these lots fetoh, trimmed on the ground as they lie, if the owners or their agents have no objection to furnish the information for the benefit of their neighbours. $J_{0} \mathcal{S}^{\prime}, W$.

## New or Noteworthy Plants.

## PILEA SPRUCEANA, Wedd

This new Tintroduction of Mearr. Low \& Co. is now llowering in the Botanic Garden at Glaunevin. It in a dwart herbaceors plant, with a pubercent atem, leafy at the top. The leaves are opposite, on athort petioles, with a broad, rounded, membranous atipule in front of each; the blade of the leaf is elliptic obtuse, with cremate-dentate margina, strongly three-narved, and bullate batween the veins, thinly shining on the apper aurface bany-green, and very 2 inchee long, 10 lines to 1 parple beneath, 1 to Howers are in flat-topped torminal broed. The green colour.

Pilea Spruceana ought to make a useful decorative plant where dark foliage is desired, and posibly it might be found uneful for summer bedding. It in a native of Peru and Venezuela. N. E. Brown.

## Afplanium (Euasplenitu) Oroupouchense, Prestoe, M.S, n. sp.

Stipiten, alender, naked greyiah, channelled, 3-4 in. long; frcndm narrowly lanceolate, bipinnate, chartaceons, glabrous, glonay, but dall green, $\frac{3}{4}-1$ foot long, reduced at the base, tapering upwarde into gradually reduced segmenta at the acuminate apex ; rachir alender, grey, channelled, naked; pinno apart, the lower distant, alternate, except the reduced basal ones, apreading, nearly seasile, base caneate-truncate, broadest, the end rounded bat toothed, $1-\frac{1}{2}$ inch long, $\frac{4}{4}-\frac{1}{2}$ inch wide ; pinnule caneate, blantly dentate on the outer carred edge, about 3 linen long and wide; veine flabellate, slender, reaching short of the margin; sori short, medial on the veinlete, $\frac{1}{4}$ line long; involucres equally short, rather vaulted at maturity, revealing the crowded sporen.-Trinidad, West Indies.
I have had apecimens of this Fern for some long time, referred to me by Mr. Hart, who found it in the herbarium of the Botanical Dapartment, under the M.S. name given to it by Mr. Prestoe, apparently its first diecoverer, after the district or locality where it grows. Mr. Hart has lately gathered it in the asme region. I cannot find that it has ever been dencribed or pablished. It belonge to the cuneatam groap, bat is well marked by the narrow, slender frond and thort Dareoid sori and involucres. It makes an interesting pot-plant. G. S. Jenman, Demerara, July 24, 1895.

## Orchid Notes and Gleanings.

## ARUNDINA BAMBUSAFOLIA.

Tre elegant Bamboo-like growths of this pretty Orchid, which are often 4 or 5 feet in height, render it an ornamental plant even when not in bloom; but when furnished with its terminal heads of rose and purple flowers it in a charming object, and as the flowera follow each other in aucceanion, it laots in blonm when in good condition throughout the whole aummer and autumn. It is at present in flower in the collection of Gro. C. Raphael, Euq., Castle Hill, Englefield Green (gr., Mr. H. Adamı). The plant is evergreen, and therefore requires to be kept moist at all measons. It ceems to thrive best ia a cool part of the intermediate-house.

## Cattleya Dowiana aurea.

This charming yellow-coloured, fragrant apecies seems to have flowered exceptionally well this season if we may jadge by the specimens eent by eeveral correspondente. Accompanying some very fine and richly-coloared flowere, Mr. Geo. Roberts, gr. to R. Bruoman-White, Euq. Arddarroch, Garelochhead, sende snote, "Wo have had a splendid show of Cattleys aures this reason. Already over 100 blooms have opened, and there are atill many in bad. At you will eee, the lipe are very brond and of very dark parple-crimen coloar, the gold veining in them ranning in some almost to the margin."
Mr. A. H. Marrell, gr. to A. H. Milton, Esq, Castleton House, White Lzdies Road, Clifton, almo sends a grand flower, in which the petals are marbled with row colour as in C. aures marmorata.

## Masdevallia guttulata, Rchbofo

I can confirm De. Kräozlin's sapposition (p. 324) that Masdevallia Lawrencei is the plant which I described in 1890 (Gardeners' Chronicle, 1890, ii., p. 267) ac M. guttulata; and, what is more, I can atate that it is also the M. guttu'ats, Rc ab. f. (Linnoc, xli., p. 118), described in 1877. The latter was not unknown to me, but I had placed the reference next to M. ionocharie, Rchb. f., because the flowert were said to be of the same aize, and no other affinity was given. I had seen the plant two or three times unnamed before finding it under the name M. guttulata, which I adopted, thinking it to be only of garden
origin. Afterwards I found that it had then given by Reichenbach himaelf. I overlooken M. guttalata, Rehb. f., because I did not look in the M. ionocharis group, any more than in the Chimana or Coccinea group, to which I knew it did not belough The identity of the two has been duly recortan (Woolw. Monogr. Masd.), and it is most unfortanath thas $D_{i}$. Kiäozlin should now add another
ay nonym. $R$. A. Rolfe.

The Ashlands, Newchurch-in-Rosibsda,
Within a radius of 20 miles of Mancheater thea are, as is well known, many fine and nalmb collections of Orchids, whose treasures have bay repeatedly aeen at the Whitsuntide exhibition but in the Botanic Gardens, and at the mesting of the Rogal Horticaltaral Society in London. Thernen several collection which, owing to the moluty ${ }^{\circ}$ their owners, have hitherto seldom been adialud.
 these. There has bsen got together at thir plum a collection which at the present moment car mil hold its own amonget those which are more mider known, and may shortly rank as one of the finatio the district.

Unlike the connoisseura in the south, whow gardens are more favourably nituated, climatienly and atmospterically, the gentlemen of Mancheter have in many inatances built or acquired their midences almost within aight of the buge chimng atacks of their mills and manufactories, out of whim dense volumes of smoke and soot are being emittod day and night. It is therefore gratifying to haveto note such excellent examples of health, cleandina, and floriferounens as are here found.
In a house chiefly devoted to Dendrobinme then was a rich display of bloom, the more conpienoun plants being D. Phalænopais Schroderianum in many varieties; good plante of the beantifal $D$. Dearei and of D. formonum giganteam. In thit hoam a plaat of Catasstam Bangerothii of grand quality, and carrying a fine apike of ten very large fower fally open, with two other flower-spikes approching matarity, and one spike of twelve blossoms of equally large flowera juet passed, was remarked. Conider. ing the plant has but two lesde, and it is gromisg ia a 6 inch basket, it can really be said to bo 1 apecially floriferoas example. Of Cypripedinal there was a goodly show of flowera, whiltt the namber of unopened apiken visible amongt tho foliage told of a rich display coming on.
In the Cattleya-house there was quite arpo number of apecies in flower, fine plants of $C_{0}$ D swiana, C. D swiana aurea, C. Harrisonis violace C. bicolor, a very fine form, with bright tany yellow sepals and petale, and dark amethyst-coloured lip; C. gigas Ssnderiana, Athlands variety, which it naquestionably worthy of ite distinctive appellation, is a fiae and well-formed flower, measaring ove 8 inches acrone the petala, which are broad and fact The colour is a deep rose-pink, the petale hessily pplashed with bright violet-parple, reminding one of the beautifal C. Monsix Hardgana: the lip iu lare and 1 at, of a bright purplish-crimoon colour in the front, orange-yellow veins showing in the throlk Of Letias, two fine plants of L . elegans of the Schile leriana type were remarked in flower, oze having st inteneely deep purplish-crimuon lip; also namber od the Le'ia preatans and pamila sections in mang varietien ; Oacidiuma, Miltonisa, Epidendrume, and others, in flower.
Ia the Olontoglossum-house there was not much bloom, although there were some few good formo of O. crispam, and a particalarly good plant of one of the ficest forms of O . crispum gattatum.
The collection embraces most of the apecies and varieties uaually met with, whilat rare and conlify species and varieties are numerous. Great prailio is due to Mr. K. Pidgatey for the evidently intalligent manner in which he managea bis charget to

The last part of this pablication is devoted to the illastration and description of a beantifal serima variations from Cattloya labiata var. Mousim wim fewer than forty-aix forma are described, many will

Latin namen attached. Ai it is clear that accurato lines of demarcation and claasifeation cannot be drawn for these individual forms, is it not denirable to call them all-an some are already-by namen nuch al Quetelet, Crépin, Damortier, Morren, Spring, K ckx, van Beneden.

## DEUTZIA LEMOINEI

Dretzia Temoinei, which was brought forward for the first time at one of the meeting of the Suciéé Nationale d'Horticulture de France, on A pril 12, 1894 and whote appearance was signalise d by a favoursble dercription in the Bulletin of the anme Society,* it a hybrid from $D$. gracilis $\times \mathrm{D}$. parvi日ora.
troduction. It came originally from North China, and the vicinity of the Amour river, whence it wan introduced into the Imperial Botanic Garden at St. Peterabarg, then into the Arnold Arboretam at Cambridge, Liated Scatea. Profentor Sargent, the well-known director of that eatablimment, seat ut nome branches, one of which put forth a bad which developed and took root. Thas we were enabled to be the first in Earope to introdace thin fine species into the trade. At the amme time the Paris Nataral Hiatory Maseam had receired from Profensor Sargent in 188\%, some seeds of the asme apecies, and ancceeded io blooming the two or three plants thas raised. Thi plant forms an upright tult, acarcely more than 5 feet bigh, the stems rather thick, atiff, and atanding vertically, the leavet elliptical or
of 1891, D. parvifora prodaced a certain number of hybrid, waich, planted the second year in the open ground, bore unharmed the cold of the three late winters. They are talta about 3 feet high, the brancbet of which are quite erect, and bear from parly in May clasters of flowers; an many na from 100) to 1500 flowers and bads may be counted on each plant.

Ia general appearance 1). Isemoinei $\%$ is interme diate between its two parents, although it has not their qualities. The branche are more upright, firmer, and more solid than in D. gracilis (8), more regular in appearance, not no long, and in greater namber than in D. parviflora ( 9 ). The inforescences are developed in all the axile of the branches, appearing early and in a regular manner, oo that no lack or


Fig j0.-D.otzia hemonel
(Fhom a piotograph)
-
D. gracilis, Zaccarini, which grown in the damp mountain valleys of Japan, is a little bushy shrab with lancer late leaves, and white flowers arranged in single baches, with glabrous anthera borne on the central point of a trilobed thread. This apecies, introduced by Siebold about the middle of this century, and brought into trade by M. J. Baamann, - Ghent aurseryman, is now aniversally grown; it is raised in large quantities for forcing, and it is even atated, in the Nouveau Jardinier, that "this of all shrabs is the most suited for this kind of cultivation." It is bardy, and likee a light, freah soil, whersin is a good proportion of peat.
Deatzia parvifora, Bange, is a shrub of recent in-

[^35]lanceolate, dentate, much reticulated and wrinkled on both aides, deep green in colour. The preceding year's atems bear down theif entire leagth amall truses of flowers exactly resembling those of Hawthorn in appearance. The flowera are widely open, the petala are creamy-white, ronnded, and diminiahing at the base into a very narrow poiat, which displays the calyz at in many Ronaceone planta. The atament are clear yellow, the threade juat spreading at the base, but not muriculate at the summit.

This in the mont valuable species of the genus, as the flowers open in April, some day: before those of D. gracilin. Further, it can be forced; leatly, is is perfectly hardy in the climate of Nancy, where varieties of D. creanta are often frozen to the ground level.

Crossed with the pollen of D. gracili in the spring
spaca is viable; while in D. parvilora it in not rare to see long stems bare of Aowers here and there, and as if by chance, The hybrid hae not the corymb of D. parviflora, nor the long truet of D. gracilis. It beare a ramilied panicle, arect, wometimen homispherical, sometime cone-shaped with broed baep. Fich cluter includes from fitcen to ewenty-fice large and well-opened flowert, meanuring 3 of an inch to an inch, in appearance different to thoe of other Dcutzias. The petale are broad, oval, with undalated edgen, of the purest white, and quite concealing the lobes of the calyx; the stamens are reddishyellow with a trilobed thread. The flower of D. Lemoinei $\times$ are apread quite out, while those of D. gracilis have pointed petal, and are generally but a little open; they touch in the inflorecence eo as completely to hide the pedancles and pedicela; this is not wo with D. parvifora or D. gracilis.

Drutzia Lomoineix is an excellent shrub for forcing, as is testified by the plants given in April, 1894, to the Socié é d'Horticultare de France. They were takea up and potted the previous autamn, then grown in a cool honse. Piaced in the temperatehouse, they would flower much sooner. The plants that obtained are well formed, regular, laden with pare white flower, withnat being encumbered by too abundant foliage. Grown side by side with D. gracilis, they surpass that plant in bearty. Thas we believa that this new shrub will soon be widely moltiplied for forcing, and will gradually supplant 1). gracilis. Ia the open ground it needs no special care, so it may have place in all gardene, however smal!. (Juite as floriferous as is D. gracilis, it has the edvantage of being more hardy and sturdy, of growing mach more quickly, and of flouristing in any soil. Emile Lemoine, Nancy.

## VANILLAS OF COMMERCE

The August number of the Kew Bulletin contains an interesting historical and descriptive account of the species of Vanilla yielding aromatic fruits, more or leas uned in commerce, which has been prepared by Mr. R. A. Kolfe, A.L.S., Assistant in the Herbariam, who has also monographed the apecien of the gerup, filty in number, for the Linnean Society

At least five pecies are aid to yield aromatic fraits, snd three are knoचn to be used in commerce, though the well-known V. pianifolia is by far the most important, and practically the oniy curce of the commercial product. The history of this plant is very intereating, and it is remarkable how long a time elapred before the botanical source of the economic article was known. It appeare that it was uned by the Aztecs of Mexico an an ingredient of chocolate prior to the diecovery of America by the Spaniards, who adopted its une, and that it was brought to Earope as a perfume about the year 1510 , at the asme time as Indigo, Cochineal, and Cacao, and ten years before the arrival of Tobacco. Clusius put the first botanical notice on record, in 1605. He bad received some fragrant pods from one Morgan, aposhecary to Queen Elizzbeth, and deacribed them under the name of Lobas aromaticus oblongas, without being amare of their origin or use. Nearly haif a century aftermard Hernandez gave a figure of a fruiting branch under the name of "Araco aromatice." The native name was given as Tlilxochitl, bat ite uze aa a drag only ia mentioned. The original figare was one of a teries of 1200 executed in Mexics daring the previocs century by the King of Spain. In 1658 Piso stated that the fragrant ailiqua or pod was called by the Spaniard Vagnilla, and that it Was uaed both as a drag and as an ingredient in the manafacture of chocolate. The name is the diminative of the Spaniah Vaina, a pod or capsale. fowards the close of the century Ddmpier gave some interesting information about the plant. In a amall Indian village in Soath Mexico he foand a large quantity of Vanilloe drying in the sun. The fruit was dencribed an a little "cod," growing on a amall Vine, and turning yellow when ripe, when the ladians gathered and prepared it, and aold it cheap to the Spaniards.
The Vanilla wa introduced to Englend before 1739, in which year the firat edition of Miller's Gardeners' Dictionary appeared. In this work he states that having received some branchas of the plant, which had been gatheredat Campechy by Mr. Rubert Millar, and sent bome by way of sample, he planted them in small pots and placged them in a hotbed of tanner's bark, where they soon put out leaves and roots. Nothing further is recorded about them, and is is probable that they were soon afterwarda lout.

By this time other apecies of Vanilla had become confued with the true plant, and one of there was ultimately described ander the name of V, aromatica,
though the name wau evidently though the name way evidently taken from the cconomic plant. For many years V. aromatica was but at longth it wource of the Vand that its of commerce, aromatic at all.
V. planifoliu was described and figared by Andrews, ia 1808 , from a specimen which flowered in the cullection of the Right Hon. C. Greville, at Paddington, which had been introduced by the Marquia of Blandford, but it was not until long afterwards that it becime known thai this species was the source of the Vanilla of commerce. A year before the selfsame plant had been figared and described by Saliabury under the name of Myobroma fragrans. Hamboldt, in 1811, and Schiede some years later gave a considerable amonnt of information respecting the Vanillas of Mexico, and the latter described four new apecieg, two of which, V. sylvestris and V. ativa, havesince proved to be the wild and cultivated forms of V. planifolia, ard a third, V. inodore, to be the one so long known as V. aromatica. Prof. C. Morren first ancceeded in producing fruits in quantity and in proving that V. planifolia was the source of the commercial prodact. By a certain method of culture he succeeded in obtaining fifty-four flowers on one plant, and by fertilising them artificially, obtained the ame numb $r$ of pods. A year later he succeeded in obtaining a crop of 100 pods. His paper "On the Production of Vanilla in Earope," which was read before the British Association st Newcastle in 1838 , was remarkable in several respects. Besides proving the batanical source of the Vanilla of commercs, and showing the need for artificial fertilisation, he a'so succeeded in tracing his plant to the original one in the Right Hon. C. Grevilles collecLion at Paddingtov. It appear that Parmentier succeeded in obtaining cattines of this plant, which he conided to the cire of D. Summé, Diractor of the Antwerp B tanic Garden, where it grew rapidiy, and slips were widely distributed in $B$ flgiam and France, though thay virs eldom flowered, and never fraited. Ia $1819 \mathrm{D}:$ S mané sent two plante to the Datch colonies of Java, by M. Marchal, who, with difficalty, got one there alive. Tais flowered at Baitenz rg, but failed to frait; and in 1825, Blamel who can hardly have known it history, again dencribed it as $V$. viridiflora.

A very interesting circumstance about the Paddington plant did not come ont until many years afterwarde, ad that ip, that in 1807, the very year in which stisbury's fi sure appoared, a drawiog was prepared by Francis Baer, ahowing bo in the fower and alev the fresh frait. How the flower became fertilised is not known, nor set whether any aromatic fragrance way obserped. Morren thought: that the fruit might have been a commercial pod, but the drawing proves chat it was freab, besider ahowing the stalk by which it was attached. Deltiel atcribes the present importent indantry in Rexnion to plants obtsined from Paris in 1822, which it is pretty certain aluo came from the Paddington plant. He aluo atate that they pioved aterile natil about the year 1841 or 1842, when a slava named Elward Albins discovered a simple and rapid meihod of fertilising the fowers artificially, which has been practised ejer aince! He also states that artificial fertilisation was first practiaed by Namann in the Jardin des Pantes, though no mention is made of this by Morren. In Mexico and Central Acmerica fertilisation is effected naturally by mall bees beloaging to the genus Melipone, which visit the dowers for the alce of the honey they afford. Etuewhere artificial fortilisation has to be renorted to.
With respect to the other apecies with economic fruite, it appeara that V. propona, Schiede, has thicker, very fleshy pods, which are more dith sult to dry, asd also fetch a lower price on the mirket. They have, however, long been known as an article of commerce, and are largely aned in a fresh state. It is diffased from Mixico to Gaiana and Colombia, and is cultivated in the Weat Indies, being the sourcs of Weat Iadian Vanilloen. Biazilian Vanilla is produced by Vanilla Girdieri, Rolfe, a apecies here described for the first time, having previously been confused with V. planifolis. "Soath American Vanilla," it is thought bolonge to the samo species, anil of this as much a, $9,000 \mathrm{lb}$. are aid to have been produced in 1891. It has a rank odour, and is probably uned an an adalterant. V. odorata, Prest, nad a ow specier called V. appendicalata, Rule,
have aromatic fruits, but are not known in commem, An indigenous West Indian specien, called V. pha. antha, Rehb. fo, has also been caltivated as a Vanilla plant, but has little perfurae. According to Hamboldt, there is a Peruvian apecies with aromutie fruits, but notbing further is known about it. Thu it will appear that the author has brought out nerent interesting and unexpected factis. Trose who would read the matter in full should refer to the origina

Foreign Gorrespondenoe,
POISONING FROM EATING GRAPRS,
Alfhough not bearing directly on the abjemer poisoning by nicotine, appearing on p. 334 of the Gardeners' Chronicle, the following remarta ann ficient to prove the langer of using ijprion remedies upon products which are caltinted for market purposes. In France, in almont erery nine yard, suiphate of copper is used either as a cmeor preventative against mildew, which atteck the leaver, and in springing the leave the berien naturally receive a certain amount, and which rhen eaten produce a slight poisoning. Here (Cannee) at this edsoa of the year, when Geapes are cheep and plentifu!, I have remarked an increased ocarence of illoess, which medical men attribate of colic, bat waich I coatend is really slight poisoning frour eatiog G:apes which have alphate of copperoe them. I have mut with several cases amongt friend, and have aleo found the effects of it myself; and as further prozf, I find the paia is accelerased by driaking anything contaiaing an acid. Considering the greater part is used for making wine, where the poison would be nullified by fermentation, the danger is not great; bat in any way, I monld asame that the addition of copper (placed in the wine), which is often practised, would bo unacemmr. Riviera.

## The Properties of the Grape vine。

 If our forefather $\mathbf{A} d a m$ was of a philanthropic turn of mind, and knew the many properties of tho Vine, he muat have felt a plessare in handing dont to mankiad a plant which would prove in itself a ministare pharmacopceia. Perfectly ripe Grapeas good for person saffering from iaflammation, and as gascritis, \& ? whilat the anfermented jaicz (wort) as a popalar remady against dywatery and bloodVimmiting. The asis from the canes acs as a diarebie. Tha leapan, dried in the hade and powderal, an asel in casen of benorchage. The sap from the ynans shoos is used for iatammation of the ajoth Died Ruisina ara an excellent pectoral for affoction of the chest. White wine ac is as a tonic aperitirs; Whilst red wine (which poets love to quate) if both nourishing and fortifying, if taken in moderation. Agaia we have the vinegar, which is emplojed for wo many purposes, and the oil, which is extracted from the seeds, and is used in southern Earope for illuminatiog parposes. Riviera.

## Oxalis tropejoloings.

I am andiag you by asmple-post a plant of Oadin troparoloides, Aarora, and one of O. t. Brillianf and I wish to tell you that seed of these yields from 30 to 70 per cent. of variegated plants ; Aaron gruilh nases with jellow seed-leaves, but Brilliant an White seed-leave (I refor to the firat leaves nifuing from the seed), bus later leaves display the dime colourt variegations. Aurore does not change to the curn lize of Brilliant, nor do the leaves of Brilliant tary slor those of Aurora. Both specie are of so growth at first, and later on not growing so quadide as does the old variety. The intenaity of colh allee is so vivid and attractive that both are worn ahat in the garden. I would further mention variety was awarded a Silver Medal at the reatio
 Saptember 8 ). I have been told that tria ader bis have nam d Bitliaut was shnwn in 18 , name of Oxalis tropadoides rosec.piner, burg. TTia spacimens which accompanied this were exceedir ly pretty and high coloared. Fa

# The Herbaceous Border. 

## aster madckil.

Amongrt the moat diatinguished-looking and ductioce Micbaelmas Daisies now in flower, Aster Marckii (Ragal), a native of Japan, dezerves favour able notice. Toe height is abous 4 feet, the habit good, and the flower as large as that of A. nove anglix, the rays are regalar and horizontal, of a pale purplith-blue. It came to me two years ago as a novelty from Mr. W. Thompaoa, of Ipawich, and spread very moderately. I observe in Mr. Thompson's noed catalogue Amur-land given as the habitat. C. Wollay Dod, Edge Hall, Sept. 29.

## The Herbaceous Phloxbs.

The Phlox baing my favourite plant, and having grown it for gears with some degrea of nuccess, I was intereated by Mr . Douglan' remarks at p .325 concerning them. I am notsare that Mro Douglas is writing of the shrubby Phloxes, viz., P. suffraticosa, or the garden form (Y. omnifora), at all, aince the greater portion of his notes bears no reference to this section, but are directed to the horbaceona Poloxes proper, viz., P. decnasata. The two sections are too distinct to be mized by anyone, even if they desire it. Thone who require Phlozes that are motily dwarf in habit, will find them in P. suffraticosa varieties which, in reality, are the allrubby Paloxes proper. Taese range from 1 to 2 feet high, and a few kinds c:ller than this, bat they have not the wide range of a,lour that we fiod in the herbaceous Phloxes, viz., the varietifs P. decusata. The shrubby Phloxes are, moreover, wach the more delicate; aluge are their pernicious enemies, devouring the poung shoots almust as fast as they appear, uniess prevented doing $B 0$, and in few gardens do they thrive sufficiently to Le of much decorative value. Bat it is quite otherwise with the herbaceoas Phlozes, the growing in almost any garden. The fiue variety Etna (Lemoine) mentioned by Mr. Douglas, hat nothing to do with the "shrubby"section whatever. This kiad undonbtedly belonga to the herbaceons group. The other varieties mentioned I am not acquainted with, Mr. Donglas aays that the Paloxes of twentyfive years ago were too tall, and this wat true enough of nome kinds, bat there were good dwarf kind also, which are scarcely superaeded to-day. For example, take coccinea, Regulue, J. K. Lord, Lothair, Madame Moisset, Independence, The Queen, and you have an assortment of the dwarf kinds twenty-five years since that figure among the best of to-day. But I believe that height of stem is simply due to culture, an I find nambers of the old varieties which I have grown, fully 4 feet high, and completely foliaged to the ground at that height, figuring in catalogues at the present time at $1 \frac{1}{2}$ foot. These herbaceous Phloxes, when well grown, are among the grandeat ornaments of the garden, and those that require to be "masked by other planta" are certainly not well grown by any means. Phloxes which in dry seasons are devoid of leaves on their atems to a great extent, have affered distinct neglest. Sach plants mast either be very old, or be standing in the dry soil of a crowded ahrubbery, or have been afforded insufficient quantities of water, any one of which is quite sufficient to render them nnaightly. I do not know of any London narseryman who did greater jastice to these Phloxes than the late Mr. K. Parker, of Tooting, for not only had he a very fine and remarkable collection, bat he grem them well. This comprehenaive collection was the admiration of all, and the great massive heads of colour thrown up for weeks together was a sight in itself. The whole secret of his auccess was in affording moisture at the root. The large specimen beds were planted near to the water-tanks, and in summer-time, twice, and sometimen thrice weekly, the bed wore flooded; and so that the water mould not ran away, a ridge of earth was formed round the beds to keep it in. It is apparently a forgotten fact that these Phloxes, or at least the original species, is almost, if not quite, a bog or march plant. At any rate, there is no
position in the garden that in ammer time will anit them so well. I must also confes bhas I have little faith in the reputed dwarfaess of the new kinds. Given the requiaite treatment for full development, there is acarcely any variety of this section knuwn to me which will not, in the econd jear after plantiog, attain to a heigbt of from 3 to 4 feet. These Paloxes, slthough they flower well the birs?, do nut atuin perfection till the second year, and this only when let alone. Mr. Douglas aggeate replatuing, if it is intended to carry them on a second year. This is one of the greatest posaible errors in Phlux culture, and is aimply and aurely the undoing of the first year' work. Such a nyitem not only keeps the plante unnaturally dwarf, bat it aloo, and that must effectually, restrict the development of the fowerheade; and it ia no doubt in a largedegree due to this or similar treutment that we see these lnnloxps so poorly grown ginerably, for it musio sosurtuly follow that any cuitural treatment rubbing the plant of ita nataral development will rot ioupuve the colour or the siza of the Hoxere. The preas mrjerity of these herbaceous Phloxe will produce immense panicles of bloom 1 to $1 \frac{1}{8}$ foot through when well grown, irreapective of lateral ; but to getanchreaules the plants must be put out in their permanent places, when, it intelijgently treated, they will bloom well. The cutting inserted in the spring of 1895 will procuce one fluwer-head about Auguat the ame year; und, if let a!one, it will, in 1896 , prodace from four to six fine heade of bloom; and, if still left undiaturbed, and roaked with moisture in the ammer, will, in 1897, produce from twenty to twenty-four much finer head of bloom than ever. I note that Mr. Douglas would reatrict the heads of bloom to three on esch plant, but I canvot usderatand the reason why. To obtain the kest realta, the soil must be deeply trenched and heavily manured; in these matiers it is imparsible to err. Eoploy young plants, from cattioge if posible; failing these, the fresh joung growths from the outside of large clampe, carefully avoiding the hard woody material. If pot plants are obtained, ahake them free of all eoil, and, removing any small muckers, reduce to one atrong shoot, and in planting spread the root horizontally. The old stem nould be buried at leat 2 incher, as the plant are great surface-rooters. Phloxes may be planted over a rather long eason; but, for ensuring sucsess, the early autuma is in every way excellent. In mamertime aupply them abandantly with water, and liquidmanure in plenty; and while a heavy malch of manure will be most helpful, moisture must always be regarded as being very essential to succensfal caltivation, E, Jenkin, Hampton Hill.

## THE WIZARD OF HORTICULture.

The name and fame of Lather Barbank are worldwide. He was born in Lancaster, Worcester County, Mase, on March T, 1R49. From hia continud euccesses in producing new forms of living plauts in nnexpectud directions, ho is often called "The Edison of plant life" and "The wizard of horticulture.
At eighteen years of age, after baving received a liberal education, Mr. Burbank went to Worceater, Mass, to learn wood-turniog and pattern-making. After three years, and inding the dast and confinement not suited to his tasten, he parchased a 20 -acre farm in Lunenburg, Mass,, where he could continue to study, inveatigate, and experiment with the variations of plants, and this was where the "Barbank" Potato originated, and where many other experiments were instituted, rome of which have since resalted in valuable fruitn, flowern, and vegetables.
Finding the climate of Now Eagland too severe for some of the plants with which he was working, he removed to Santa Rona, California, where he hat since lived, and whese his creative work in pronuce dived, fruits, flowers, vegetables, trees, shrubs, and grassee bas made his name famons; the benefite conferred by this work will be better known a gene-
ration bence, for it is a pioneer work, and the life of one man in too ehort to ahow the full resalts.

The work which Mr. Burbenk is now doing would aeem to be enoagh to occapy the time and abilities of a dozen men, and, not being matistied with the hardiness or hdbits of the material which can be produced througt the chanaels of the general trade, he takes juuineys of many thousad miles to the muncaina in the far North, where plant life has to atruggle with a brief sammer and a temperature of $60^{\circ}$ to $80^{\circ}$ below zero [?]. Derert and mountain top, swamp and field, each have to contribute to his omaivorous p'ant workshop, and when the finished prodact is tarnel out in the form of a grand new hardy crose-bred Piam, a frot-resiating berry, or a charming new Rosa or Lily, he finda ready asle for it at prices which seem fabalous to those who do not know the cost of time, thought, and labour necessary for its

From the muitisude of needlings raised each jear, he aelects a very few which, by their growth, show improvement over others of their apecies heretofore cuitivated. These are tested for everal yeara before their characteriatics can be definitely accertained. The aeeds of these icoproved apecimens are planted, and, a promising variation of the last generation of seediling having been produced, several improvements may be expected in the next generatios. The best of these are, in their tarn, selected for producing atill otherr, and, after a time, by this carefal selection, greas improvement is the natural resalt. Another means emploged is to select the bent varietien, and cross them with other. By this plan valuable varieties are sometimes obtained. The National Nurseryman.

## BELGIUM

## orchids at tile belgian exhibitions.

 itions were held in Belgium, one at Brassela, the other at Mortsel, Antwerp. At both, Orchide were well represented. At the Brusels exhibition, organised by the Socíé́, de Flore et la Linnérnne, M. Lacien Linden showed thirty Catasetums in bloom, all fine varieties which bad flowered last year; C. imperiale was even betcer than it was last season.- Many new varietie were added to those with which we are already familiar. M. Cb. Vaylateka ataged an admirable groap of fide varieties of Miltouis vexillaris var. sutumnalis; this is quite other than the common type; it alway flowers in Saptember and October, thas deserving the name of autumalit.M. Jules Hye-Leyaon ahowed a pretty miscellaneous collection of Orchids, among which may be named Vanda Lowi, Saccolabiam Blumei, Cypripediam Charlesworthianum, with two beautiful flowera, well-coloured, especially over the very wide atandards; OJontoglonam Harryanam; Cypripediam Morganise $\times$, remarkably fine; C.Blunti Labbersiana, with five plendid flowers; Cypripediam macropterum, with two flower-stems and six good flowers; C. Annie Measurea; C. Charlen Canham, with seven splendid blooms: Oncidiam Linceanam, marvellone ir colouring; Epidendrum aceftram, and Miltoniopais Bleuana.

Among M. Poeters' collection may be mentioned Vanda coralea, Miltonia vexillaria auparba, Oadidium Lanceanum, Miltonia Blanti Lubberviaka, Cattleya granuloas, Odontoglonaum Wilckeanum, Cypripedinm Morganise $\times$, and Cathleya O'Brieniana. MM. Stepman \& Mosn showed a fine collection of Cypripediams, including C. virens, sleadid es to colour; C. Charleworthi, and C. Sallieri Hyenum. M. Vuylsteke staged C. Ruthschildianam, with three flower-items and nile superb flowers; the plant strong and fine.

At Mortel, Antwerp, M. Flor l'awels ataged a remarkable collection of miscellaneous Orchids; among them may bs noted-Epidendram raniferum; Oncidium aurosam, with three fine bunchen of bloom; Aüride virens, with two aperb trasen; Cypripediam Bolerlaerianam $\times$ (C. Duthieri $\times$ C.

Harriaianam), flowering for the first time, the blossom large and good, with a flie standard, resembling greatly that of C. Harrisianum ; Vanda taavia, V. teres ; Miltonia Moreliana, with a handred flowers; Oncidiam incurvam, with seven fine flowerstems; Cattleya maxima floribunda, new, but not unfficiently fixed to be criticised; Dandrobium cruentum, Cypripediam Chamberlainianum, C. Thomsoni, Zygopetalum Ganthieri, magnificent in colour Acineta apaperba, with three fine cluatera of deli-cately-scented flowers; Cypripedium Veitchi, with four beantifal blosom: and Oacidium dasytyle, well-bloomed. MM. Jansiens \& Vincent sent 3 beantiful eelection, inclading the following:Oncidiam Lanceanum, admirable in coloaring; Odon toglosam Coradinei, a very pretty variety; Saccolabiam Blamei, Cypripedinm ceannthum auperbum magnificam, Catcleya crispa, Cqpripedium Athburtons, remarkable; numerous fine varietien of Odontoglosenm criepum, one of which, varo Triandi, was quite remarkable.

Commander Jonen also ataged some fine Orchida among them Odontoglossum Krameri, Trichopilia coccinen, O cariniferam, Pencatorea cerina, a apecien of Lycaate with olive-green sepalv, dotted and apeckled with brown, the petals and lip white, with numerous dall rose spots.
M. Jean de Bouschère exhibited an album of dried Orchid bloom, accompanied with illuatrations.

## Obchids at L'Hobticultobe Intebnationale.

We noticed that Catasetums were flowering even better here this year than last reason. We have before greatly admired many aurprisingly fine varie. ties of C. Bangerothi, splendens, macrocarpum, and othern, and woald farther mention C. Bangerothi giganteam, C. aplendens aureo-maculatum, of which there are numerous varieties ; C. aplendens aureum C. macrocarpam albo-punctatum, C. splendens maculatam, C. splendens album, C. revolatum roseopunctatum, C. O'Brienianum, and others. It is anamed that Cataeetams have but a short life, but, at this eatablishment, there is a plant of C. Bangerothi Pottoianam, which has been under caltivation for eleven yeara. In addition to Catasetuma, Cattleyas Rox and gigas are here blooming abundantly.
Many Orchid-lovers are aurprised at the great number of seedling Orchid here found, and which are the resalt of various crossings between divers genera and apeciey. Thap, at l'Horticalture Internationale, there are about 1000 Odontoglonams, all thriving young plante. Notable also are the very numerous apecimens of Davallia Truffatiana, a new plant, which will moon prove to posess valaable decorative qualities.

## Orchids at Deuene, near Antwrbp.

M. Flor Pauwela hat here no remarkable an eatablishment (amatear) that all plant-lovers panoing through Belgium should see it. Oa Augast 25, though reany fiowers had been cut the evening before, we found atill 109 flowering plants. We do not know when wo have before seen such succeasful caltivation of Pbaluenopsis, and on so large a scale ; the vegetation laxurions, the leave: frm, glistening, in excellent health; with promine of abundant bloom, which shall be spoken of later. Meanwhils, we commend this collection to the attention of Orchid-lovers. Ch. De B.

POTATO CROP AT BUXTED
At one time, owing to the long-continued absence of rain, it seemed doubtfal if Potatos this season would be worth lifting, but where the ground was properiy tilled and the aete proporly prepared, the resalt has oxceeded my expectations. I have lifted the enrly and aecond early linds, and find them atapartactory in everating rad respect. In a fow inatancen extent. The Avhlouf in, although not to a marious heary crop as anaml, nor were thore not such a bat the flavour is excellent, aud there is no large.
disease or of a aecond growth. The ame may be said of the second early kindm. From 200 aquare yards of ground more than 13 cwt . of good tabers of Sapreme (Satton's) were lifted, not reckoning the mall oner, and not one was diseased. Renown (Webb's), produced aboat the asme weight of tabera; Marvel was all that could be denired, even in nize, of good shape, and free from disease; Wrangler and A1 (Satton's) were very good, as were Perfection and Triumph, which prodaced good crops of even-sized, well-formed taberis free from disease. Considering that so little rain fell during May and Jane, it is matter for astonishment how well Potaton have tarned out. Only finch of rain was registered between the month of April and Jaly. The late atrong-growing varietien are not yet lifted. The haulm is making a second growth, which is a sure indication of renewed rootaction, and as thenoil in now very moist, nothing bat cold weather will atop growth. Where the akin has not "set," this may not be merious. I naually plant thase varieties at 3 feet apart, which allows of sufficient noil being drawn ap to make wide ridges, and this measure prevents the soil about the roots getting dry daring a meason like that of this year, and growth goes steadily on, even in a dry time. Two yeara ago no rain fell between planting-time and the date of lifting the earlien; atill, these were a good crop. Where the soil is poor the crop is very light, there not being safficient haulm to cover the ridger, and the sun-heat penetrated far into the soil, On my atiff land, unlens it be well prepared, there ir no hope of getting a satisfactory crop of tubert, it becoming baked into hard clods difficult to break into pieces. Where Potatos were planted on such groand, they have done very badly this reason, eapecially the ahort-topped varietien, I have given up planting divided metr, except in the cane of new varietien, of which there are few wets, the resalts obtained being much better from whole medium-sized onet, prepared by being atood on ond, eyes uppermost, in a light airy place. If the tubers are hardened by being exposed to the action of the aun for a few days, by being left on the ground after lifting, they do not atart into growth to early in the apring, and the shoots are more robast, particalarly if the rete are kept in a cool place till planted. Oa the heavy soils hereabouts, shallow planting is practised, but plenty of earth is drawn to the plants to prevent the tabers from pushing through the covering. The soil is made an fine as possible before planting and earthiug-up, and this, in a meanare, prevente it from getting very dry during droughty ammerr. I have dispensed with farm yard manure for Potatos, and I nue artificial manure inatend, which is sowed along the drills before the nets are laid in. The mointure in the soil diesolves it, so that the plant. are benefited at an early atage. Earthing-up is done at soon as the plants are anfficiently forward, and in this way the roots are kept moist, and should the meason prove a wet one, the moisture draina away into the farrows. H. C. Prinsep.

## KEW NOTES.

Tricons madicass.-In the warmer parts of thit country Tecoma radicans thrives well, even without the protection of a wall ; there is at Kew now an old apecimen flowering freely, which in growing in the open with no other protection then that which the abrube growing near it afford. Where apace can be given, however, a position on a wall facing south is to be preferred for the plant. It is a native of the Soathern United Stater, and according to Loudon, has been caltivated in England for more than 250 years. The flowers are borne in terminal claters on the long rambling growthe of the carrent season, About a dozen flowers occup in a clater, and each one is 3 inches long by 2 inches wide at the mouth of the trumpet-nhaped corolla, which is of a brilliant red and orange; the bave is clanped by the red calyx. When grown as a bath it ahould be pruned hard back before growth commences, and it will in time form a thick velf-supporting atem. On a wall
it can be extended at will, bat when oree than allotted apace is filled, the same hard praniag in necensary. It is ensentially a sun-loving plant of in proved by the great wealth of bloom after nummen like those of the present year and of 1893 。

## Ceanothos Gloibe de Vrbsatureg,

Whilat many of the apecies of Ceanothas are rem beatifal when grown as wall planta, or far nome to the south to dirpense with any protection af all, it is only comparatively few that can be inderim among really hardy ahrabs in the neighbourhood a London. C. azureas is one of the bent of then, m , of the numerous varieties of it that have benm out in recent years, Gloire de Verailles in-ling caltivation in the London district-probably then hardient and most useful. It is more vigorou is habit than the apecien itnelf, and the pariden flowers are much larger, and of a richer tint dilit At Kew, this variety is planted by itself in inem bed; the plante are 3 to 4 feet high, and forturlum two monthe they have flowered most profund, the feathery panicles of amall blae flowern airing 1 charming effect. The frotis experienced bus January and February were a anfficiently nemm of the hardiness of any thrab, and it apeak well for this Ceanothas that with no more protection thans thick layer of dry leaves afforded, the plantor reaind no real injary. The later, softer growth of lat yous was, as might be expected, killed, but thit ody anticipated the knife by a few week, all the varieties of Cennothas azareus atrike redily from cuttings.

## Eccremocabpos scaber.

Like other hardy and tender Chilian plana, this one han become quite rare. It was first collected by Archibald Menzies about 100 years ago, bot wa wit introduced to caltivation until 1824. It is a platas of a climbing habit, nomewhat Clematia-like folinge but belonging to the Bignonia family. It is andlly killed to the ground in winters of ordinary erverity bat occasionally it survives if the plant has the protection of a sonth wall. In any case the roota hoold be protected by a thick layer of dry tree-levee a brushwood. There need never, however, be avy fur of loning it, for it ripens weed in abundance; md seedlinge obtained early in the year and grown on in a frame nutil May, and then planted out, forre freely the following August. The flowera are bonto to the number of twelve or more together on the racemea, the corolla being tubular, $1 \frac{1}{2}$ inches looge conatricted at the month, and of a bright orange-wd The leaves are bipinnate, with dark-green, irreg. larly-lobed leaflets. The leaves are opposite, bit after flowering has begun, at every third or fourth node a raceme takes the place of a leaf. The mido rib is terminated by a many-branched tendril, by which the stems are secarely held to whaturet aupport is near. This was one of the climben apecially atadied by Charlen Darwiu when invali gating the movements of climbing plants. W. J. B.

## MORELLO CHERRY CULTURE.

Mr. Teuptre's intereeting remarks on the show mentioned eabject in a recent number of the Gardewn Chronicle (p. 293), recall to $m y$ mind the ine apeciwerid trees of the Morello Cherry which uned to sdorta probably adorn atill, the 18 -feet high wall at back of the carvilinear-roofed orchard-house at Scome Palace Gardens, Perth. The trees covering thind wall were fine examplen of good cultivation carefal training, being faraished from bottom to tor with healthy shoots, every one of which whe trinile with the atmont precision as regarded interveldif: apace and the point on the wall at which the in wre dual growthe radiated from the centre of eneh we. The young men who were annually entrutad mily the re-arranging and nailing of auch large troen sensible of the implied confidence and honour chas ferred apon them by the chief, and alao of the chbous and akill which the manipulation of the importace of small shoote involved, and of the impoarielion of the verdict which followed the cump It of the mork My friende Mesurf. D. T. Til
and George Smith, Vice-Regal Lodge, Dablin, and olber reader of the Gardeners' Chromiclo who have pither belped in the building up of, or have seen the Morello Cherry treet at Scone, will remember them with feelinga of pride, notwithatanding the recollection of benambed fingers and the intense cold sometimes experienced in doing the work.

I Lave no doubt about the trees of which I write, or the one which may have sacceeded them, being an fine examples of cultural kill now at they were then.

When I took charge of the gardens here a little over twenty-four years ago (Auguat, 1871), I made up my mind to have trees of the Morello Cherry to come as near those dencribed above an the dif-
about 3 fet deep, extending if feet on either side the place marked on the wall for the centre of each tree, and 3 feet therefrom, placing 9 inches deep of clinkers or brickbats, broken fine on the top, in the bottom of each hole for drainage, covering this with tarves, grasn-side down, and then placing therein safticient good yellow


19 inches in Chrcumprenoe, 4 Lb , in weight.
Awarded a First-class Certificate by the Royal Horticultural Society on September 5 lat. Fruits were exhibited at the Cryatal Palsce Sbow, which were himbly commandets (8ue 1.402.)

Perbapa my friend, Mr. McKinnon, whosucceeded Mr. John Halliday (since deceased), many years ago ia the management of Sccne Palace gardent, will kindly furnish particulars to the editor of thie Journal as to the present condition of the trees referred to above; alno a few note as to the oil, drainage, and treatment bestowed upon the tree in question, as
ference in height of walls (9 feet), woald permit. Accordingly, I planted several young trees at the fall of the leaf that autamn, and with what euccers I shall leave to others who have seen the trees from time to time in fall bearing to asy. Having obtained bealthy young trees-the irat consideration in naccessfal frait caltare-I opened holes
loam (to which a little lime-rabble had heen added) to plant the trees in. I may here remark that prior to plating the tree permanently in the hole thas prepared for them, they had been grown on in available pace between Peach and other tree for a year or two, according to space, in which to develop their growth. Toward the end of September these
treps had a treach taken out around them, and a little of the moil removed from under the roots, wo as to admit their being lifted and transplanted with nice balls of earth adhering to the roote, thereby preventing the trees experiencing macb, if any, check in the proces of transplantation, cutting off any damaged roote, and shortening back straggling ones before placing the individual trees in position, afterwards working the soil well among and abont the roots, and finally treading it over before laying on a surface-dresaing of ehort dung to the thickness of 3 or 4 inches, and extending cuer the loosened ground, and giving afficient water to sittle the sail about the roots, the trees being then secured loosely to the wall to allow of the soil settling down a littia before being finally nailed. The trees are treated in preciely the ame manner an Peach and Nectarine trees, as regards the laying-in of the young shoot annually, cutting out old ones, and the spurring back foreright shoots.

Young healthy trees planted as described above, and afterward kept clean and afficiently moist at the roots during the aummer and early autumn months, cannot well fail to make natisfactory growth and yield remunerative crops. Oar tree have never failed in yielding beavy crops of fine fiuit, which from the middle of September up to the time the crop is exhausted, are used for dessert, the flavour baving a pleasant sub-acidity about it.

The black-fly is the most troublecome pest to deal with that affect the young growth of Cherry trees; until this year the most effectual remedy that I bad recourue to wan tobacco-juice and clean water, used in the proportion of 1 quart of the former to 4 gallons of the latter. But this meason, heving been induced to give Bentley's "Compound Quasia Extract" a trial, I have no hesitation in pronouncing it the best and cheapest insecticide that I am acquainted with, 1 gallon of the Extract making nearly 100 gallon ready for nie. Another advantage which the Extract has over the tobacco mixture referred to above, in that it leaves no nasty mell aboat the trees on which it is ased; but being intersely bitter in flavour, it not only dislodges or destroy the aphis on the tree when it is applied, but it render the foliage lean liable to future attack. H. W. Ward Lonaford Castle Gardens.

## FRUIT, VEGETABLE, \& FLOWER CULTIVATION IN GERMANY.

Fruit cultivation in the neighbourhood of Frankfort neem to have been recently taken ap with mach energy, and is fostered a good deal by nocieties which discuss the progress, and assist their members, practically and theoretically, in the selection of the qualities and treatment of cultivation. The Koyal College for froit, vine, and floriculture at Geisenheim on the Rbine, is especially referred to in a recent report at exerciaing a very beneficial influence in thit direction. It organises lectures for the instruction of proner pernons, who are trained as fruit or Vine-growere or florists; it also wende round travelling teachers to give lecturep, advice and inatruction, as to the most lucrative way of diaponing of the fruit crops, as to the best method of drying and preserving kernel or stone-fruits and vegetables, the packing of the frait, the preparation of froit syrup, jollien, marmaladep, \&c., and thus as to tha preserving of the fruit. The caltare of berry-fruits has been especially promoted by the introduction of wine made from different berries and other productions, which have been brought before the consumera by the numerone exhititions, where, by mean of prizes, endeavours were made to increase the zesl of the growers to produce fruit suitable for the market. Of late, special attention has been directed to the better disposal of the fruit cropa, since the caltivation iteelf has made auch undoubted progres. Thus, at Frankfort, as has already been mentioned in thee pagee, a central depos for the wale of fruit ham been founded, which offer itm mervice gratuitously. It accept offers from the growers, and hande them on an denands arise. It likewtee
arrangen in autumn large fruit sales, at which the supply as well as the demand is very lively. Last year the demand exceeded the supply, especially in green Nats, Cranberries, Apricots, Peaches, Mirabells, and Plams. At the commencement of August, 1894, at the central office, goods had already changed hand to the extent of upwards of 1,000000 kilos., almost exclusively berry fraits. The central office gives its assistance to all interested parties, to bugers as well as sellers, entirely free of charge. It does not even ask for the reimbursement of its own expenses. The enterprise thas is purely conducive to the pablic good, and is intended to promote German frait cultivation. Dating the fresent summer, it was intended to establish similar inetitutions in other places after the Frankfort pattern. It has been successfully initiated in a few South German cities. The wealth of the population has been advanced in some instances in quite a remarkable degree by the cultivation of fruit and berry trees.

The Cherry orchards at Gaben need only to be mentioned, as well as "the orchard of the capital," for such is considered the small town of Weider, situated between Potsdana and Berlin, on white sand-hills, near the River Spree. There the growing of fruit, notwithstanding the anfavourable soil, has increased wonderfally. The frait produced excels by its superior quality, and is preferred by consumers. The growers, who have organised themselves into trades unions, are now in possession of a fleet of their 0 wn, and daring the season hip their prodace every morning in their own steamers to the markets at Berlin.
Floriculture is also visibly extending in Garmany, especially, it is atated, eince special hothoase for certain kinds of plants have been more generally erected. The cultivation of plants amongst children in school has also been much promoted by the distribution of prizes, conaisting of plants, bulbs, flower-stands, thermometers, and other articles useful in gardening.

## The Week's Work.

## FRUITS UNDHR GLABS.

By Richard PArker, Gardener, Goodwood, Chichester.
WATERING the 8OIL OF the fruit.tree BORUER8.-This matter should alwaya claim attention at this season, and in particular this year after the excessive heat and drought experienced. A tree border which has been allowed to become very dry is almost as productive of shanking in Grapes as a very wet and cold one, and it is often from this cause Peach and Nectarine trees ahed their flower-bud when started into growth the following season. Providing good drainage is mecured, and the soil is filled with rooth in every part, it is almost an impossibility to afford too much water, as although the crop of fruit may be gathered, a great amount of moisture is required to sustain the foliage in a healthy state, and develop the wood and buds. If the urface of the border has become hard, the crust should be carefully broken up with a fork, so that the water may readily enter the soil. ' In gardens unprovided with pipes and hydrante, the work of watering in severe; neverthelens, in a season like the present, a atrenuou effort should be made to carry out the work, so much of next season's saccess depending on it proper performance.

8HIFTING PEACH TREE8. - The month of October is the beat period for lifting and transplanting these trees, particularly those in the early forcinghouses, where it in necessary that the trees become established betime in the new soil, and therefore in a fit atate for beginning to force in December and January. Peach trees mas be planted as soon as the growth of wood is fininhed, and if the work be carelally doue, no injury will occur to the foliage, and it is a great point to keep it in a healthy condition to the latest date. A preliminary to transplanting in to heavily water the aoil the night previoully, which will have the effect of retaining a gocd quantity of soil about the roots. Ia preparing aites for the trees, only uafficient soil noed be removed to allow of esough fren will being added for one venson, wide, rich borders only promoting the growth
of strong, unfraitful wood. A tirm soil, a border of no great width, and additions annually made a the trees seem to require it, afford much better resalts. After planting, one copious watering sbould be afforded, and the foliage heavily ayringed several times a day, with slight shade, if the tem perature by day be very high, but dispensing with ito use when the foliage no longer flags on exponan The branches ahould be but lightly fattened to the trellis at first.

## THES KITCEEN GABDIN.

By Johw Lambert, Gardener, Powis Castle, Welshpool.
LATE FIELD POTATOS.-All field crops should now be lifted, as the tubers will not be improved after this date by being left in the ground. Moreover, the most ahould be made of the splendid weather now prevailing almost everywhere in thew islands, to gather them in. The haulm may fint bo cleared off by giving it a sharp pall upwards miliat treading on the soil over the roots with the feet close together. The haulm should be put in mall heaps and burned. A few hedge brauhinga will readily effect this in dry weather. All hand should be employed in the early part of the day in digging a sufficient quantity which will provide work for the rest of the day in picking up, and thue afford some time for the tubers to get dry before storing them. If the Potatos which are first dug are the first gathered, the whole may be pataway freer of soil than if picked up directly they are dag op. In the case of those obtained from a freeh source for supplying a change of aets, I would recommend that these be the first lifted, and the required quantity of sets selected from the nicest shaped and middle-sized tabers. Of those that are left select what are fit for the table, and latly the mall and dineased tubers, the latter to be kept by themelves as food for pigs. Diseaved Potatos keep sweet for some time stored in tubs after cooking them, if a little salt be mixed with them when crushing them. If the crop hat to be carted some distance, it is advisable to put the tabert into acks having a plain mark on the outside to denote the grade. Those intended for table use should be put into the Potato-cellar or clamp. Seed-Potatos are best clamped after exposing them to the suu for a few days. Care shonld be taken to put no diseased tubers into store. When space can be found for them in the spring, get them out in good time, to prevent their growing mach before planting them.

EARLY BROCCOLI8 AND LATE CAULIFLOWER8, -From now onwards the plants in the quarters should be examined each alternate evening, removing any heads which are found fit for use, and covering ap those with leaves that have head forming. Those intended for lifting and replanting in pits of shed should have the root masses cut round with a bright spade, preparatory to lifting them later in the year. By doing this, growth is checked, and a number of amall roots form that readily seize on the soil into which they are tranoplanted.

GENERAL WORK.-The covering material for Ranner and Dwarf French Beans, which it is in tended to cover in the event of frost, should be in readinen for use at the shortest notice. Gathering should be made from each kind where no covering ap is done; and if these are kept apread ont thinly in cool, moist place, they will keep in a fit state for nue for a considerable period.

## PLANTG UNDER GLABS.

Dy W. H. Smite, Gardener, West Dean Park, Chichester.
HINTE ON WORK IN GENERAL.-No time hould be lost in getting all kind of planta which siffer from cold and wet into their winter quartert, makig a beginning with the more tender species. placed various houses in which the plants will be placed hould have the glass and wood wort wahed and the walla lime-washed, and zoured or mossy soil ander the atage cleared out, applying its place with clean gravel, hingle, \&cc. Early Chrysantheman be whose flower-buds are beginning to open, should if among the firat brought in, as the flowers spechief exposed to the dew or rain, slthough the chier if purt of the stock of Chrysanthemums will be betesto left out whilst the weather remains as it is atpres for Mearime, let evergehing be got in reanarearo for housing the plants. Fxamine the piants for eart wigs before bringing them into the houns-8 Canns thake will generglly disiodge these. Tree Citting tions ahonld be placed in a lightairy houe, admithing
plenty of air night and day in mild weather. The heary dews and moist atmonphere of autumn are conducive to the awelling of the flower-bade and the healthy green appearance of the "grass," and when the plant have been placed in the house, they should receive a light dewing overhead twice a day, and the pots be well agringed all round for a week or two afterwards, or the leaves may take on a yellow unhealthy tinge. Indian Azaleas are not cafe as regards most of the varieties if left ont longer than the beginning of October. These plants should receive a thorough syringing with weak tobacco-water, laying them on their aides on the turf in doing so. Epacrines should be removed to the cool greenhouse, or other light structure, from which frost can be excluded ; also Salvia. Eupatoriume, Genintas, Solanums, and Richardias. Mignonette will withstand a few degrees of frost without harm, but it will be safer to place it in cold framer, drawing off the light in fine weather. Ivy leaved Pelargoniums should be taken indoors, and allowed to flower. These are very pretty plants for conservatory decoration work in the early winter, and the plants may be placed in that atructare at once. They soon commence to show for flower. A good batch of Spiræas should now be potted up; and if the plants are required to flower early, they ahould be selected from those which have been cultivated on a south border, as being more likely to be thoroughly ripened. If this be done at once, the plants will soon lose their foliage, and may then be atarted gently, and thue had in flower by the end of the year. A batch of named varietien of zonal Pelargoniums, for flowering next ammer, may now be putin. If the old plant were planted out, wellripened cattings should be taken from them, inserted in small pots, and placed in cold frames, or on a greenhouse shelf.

## THE ORCHID HOUSTS.

By W. H. Wette, Orchid Growor, Burford, Dorking.
CENERAL REMARK8.-The hot weather lately experienced has been very favourable to a large number of specien, eapecially those that are deciduous or semi-decidaoas, and therefore requiring a thoroagh reat in winter. Other apecies have likewise benefited from the sun-heat, which is shown by their more than utually vigorous root action. Moreover, I have not observed any injury inflicted on Odontoglonsums, Mandevallias, Occidiums, and other apecies of Orchids which are subjected to a cool treatment, although on everal occasions it was imposible to kepp the temperature in the houses below $75^{\circ}$ during the hotteat hours of the day-in fact, on two or three days the thermometer registered $85^{\circ}$. Thin was the case in apan-roofed bouse ; but lean-to's facing north or north-east had, at anch times, a much lower temperatare, and a cool, ${ }_{3}^{2}$ humid atmosphere was eanily maintained. With such a night temperature as has prevailed lately, air ahould be admitted to the coolhouse, and anless the cold weather comes, no artificial heat may be necesary for some time. When frosty nights occur, sufficient warmth must be maintained by the boilers to prevent the temperature falling below $50^{\circ}$. While the present fine weather lasts, the day temperatures of the warmer divisions can be readily maintained at the proper degree; and during the night, the ventilators may be freely used if the hotwater pipes are kept a trifle warmer than in ammer. The warmth of the East Indian-house at night should range between $70^{3}$ and $75^{\circ}$; that of the Catt-leya-house about $70^{\circ}$, Mexican and Intermediatehouses about $65^{\circ}$, and on cold night $5^{\circ}$ less in each diviaion. It is a matter of importance that the temperature at night should be carefully regulated, but at times it is difficalt to forecast the weather, and flactuations occur late in the night or the early morning hours, consequently it is preferable to afford a little more warmeth when finishing up for the night than ran the risk of having a low temperature in the morning. If the temperature of the various diviaions falls a few degree below what is considered the proper standard, no water should be afforded any of the plante, or damping-down done before the proper degree of warmth is reached. In the East Indian-house are delicate $\boldsymbol{p}$ "cies, auch as Angrocum*, Phalmaopsis, Calanihes, Balbophyllams, Cirrhopetalams, Epidendram bicornatam, Oacidian Lancesnum, O. bxmatochilum, Caysis, Phsio-Calanthes. Phaius tuberculosus, \&ce, which are very aurceptible to injury by a cold moist atmosphere, evtn for a ahort time at this season, many of them being in growth. Cattleyas and Loelias are also plants whose half-matured bulbs decay very eavily if too mach water bo afforded, or a check is
brought abnat by a low temperatare at night. The bright unshine has increased the plague of black and yellow thrips, and unless these peats are diligently sought for and destroyed, many valuable plants will be dinfigured. There is nothing better for killing these insect than the Richards' XI, Vaporiaing Fumigator.

## THE HARDY FRUIT GARDEN

## Hhy W. Popr, Gardener, Highelers Castle, Newbury.

THE REPLACING OF UNBATIBFACTORY TREES WITH NEW ONES -Obervant caltivators of hardy fraits will have taken note of the trees and buabes which are grown in various modes in their gardene, and determined which of them might be superseded by other or better kinds or varietien. In some instances the trees will have become unprofitable through age or other causes, and the replacing of such by younger plants is a necessity that should not be overlooked or delayed. Vacant paces on the walls or espalips fences should be turned to use, if only a cordon be planted here and there. It is always advisable to have a remerve stock of young fruit-trees of the kinds grown on walle, viz, Peachet, Plums, Pear:, Apricots, Figa, and Cherrien. Sach a reserve stock il cheaply worked up by buying a few maiden tree yearly, and training them in the various methods of dwarf, fan, horizontal and riders. The asme remark holds good of bushes and standards of hardy kind of fruit. These treev, taken from the home nursery, and planted in the early autumn, feel warcely any check if the work be properly performed. As a rule, Apple and Pear trees remain in good health much longer than stone-fruits ; and, instead of uprooting inferior varieties, if the trees are fairly healthy and vigorous, they ahould be headed-back in February, and re-graited in the spring with better varieties. Trees of good varietiea of Apples and Pears, which are unhealthy or unfraitful, should not be bastily condemned, as it may be possible to reatore these to health and fruitfulness by paying due attention to rootpruning and lifting, and affording better drainage or a more suitable soil. A few cattings of Gooseberries and Carrants should also be atruck yearly, and then, if the young bushes are thifted and afforded a little more space every year or every aecond year, gap are readily made good, and new plantations mede.

WORN OUT ORCHARDS - The replantiog of an ancient orchard is commonly a mere waste of time and money, the better way being to break up and plantia new piece of ground. If a new orchard be decided apon, the actual planting of the trees ahould be delayed for a year or o, to enable the laad to bs trenched two or three spits deep, bat without bring. ing mach, if any, of the absoil to the surface, drained, and exposed at much as possible to the action of the weather, barning all roots and rabbith on the ground, and atcatering the ashes over the surface. If the noil be heavy, a liberal dressing of road-scrapings or plaster and old mortar, should be well worked into and mixed with the staple; and if of a light kind, a dressing of marl or clay should be applied, and allowed to lay on the surface till palverised by frost, when it may be incorporated with the soil by means of the plough and harrow, or digging-fork. In the spring, after manaring the land, a crop of Potatos or roote may be planted or sown on the land as a means toward getting it into a clean condition for receiving the trees. In Ostober, or as soon as treen can be lifted safely, the planting may be carried out. Standard trees may atand according to habit and style of growth, at distances varying from 12 to 20 feet; half-atandards and bushes on crab-stocks at a distance of 18 feet. Each tree must be ataked and loosely tied at first, and mulched with half-rotted manure as soon at the planting is finished. In heavy soils, which reat on clay, it may be sometimes advisable to increase the depth of available soil and thus keep the roots at or about the surface, to form an impervious atstion a few yards qusre under each tree, at a depth of 2 feet, and make mound of soil 12 feet in diameter, and 1 foot high, on which to pland. mound may consiat of the surface soil lacraped oward each station from thy intervening land, or

## THE ELOWER GARDEIT

 By Ballex Wadds, Gardemer. Birdsall Gardens, ForkoBPRING-FLOWERING PLANT8. - Where spring gardening is extensively carried out, the flower-beds ghoald now be cleared of their aummer occupanta.

There being more time at this eason than in the apring for performing the neceasary trenching and digging of the soil in the bed., this should be done. Beds which have been thickly planted ahould receive a heavy dresning of roten manure, with some charred aoil and abes from the charred rubbinheapm, all duly screened of large atones and rough materialy, before digging them. Bede of emall size ahould have the soil removed to a depth of two pits, refilling them with fresh moil and manare. The bed in which Hyacinth and other kinde of bulbe are to be grown, should be well drained by placing rough materials to the depth of 6 to 8 inches at the bottom, the layer of ail above being not lese than $1 \frac{1}{2}$ foot in depth. As aon an the digging is finabed, planting operations may begin.

ANEMONE CORONARIA. - The corm of this plant sbould be planted at about 5 inches apart, and covered with soil to a depth of 2 incher, previoualy prinkling leaf-soil and charred refuse about them. When the beds of this plant are large, they shoald be neatly lined out, and care taken io plant the angles of the bed. (If any) neatly. Seedling Anemones should be planced out as soon as possible into rich friable soil.

HYACINTHS may be planted 4 inches deep, ard from 4 to 6 inches apart, according to variety and other considerations. If other plants are to be planted as well, between the bulbs, more pace must be afforded-ay from 8 to 10 inches. Care should be taken to plant them at regular diatances apart. If the soil in the beda in very dry it abould be made firm and level by treading it evenly all over before planting, and afterward raking it. Plant bulb with a trowel or a atrong iron-ahod dibber about 4 feet long with a movable tread fixed on one side to regulate the depth of the holes. Before the bulbs are placed in the holes a handful of zand or charred refuse may be dropped into the bottom, the bulb keing then covered with the soil of the bed, aud made firm. Narcissus and Jonquils may be planted ia the name manner; Tulipe, Crocus, and other small bulbs may be flanted with the ordinary diober, the distance between them being regulated according to the growth of the variety. All bulbs require to be planted much closer together when planted in bede by themaelver.

CROCUS FOR EDGING8 of beds should be planted 2 incbes apart and 3 anches deep. Look out for mice after planting theae corma.
ranunculus, persian iris, Snowdropa, winter Aconiter, Scillas, \&ce., should now be planted; the three last named mould be planted thickly if used for edginge or designs on the lawr.

LILIUM CANDIDUM.-If these bulbs have grown in the same place tor everal years half of the bed should be taken up and replanted elsewhere, affording the aoll a dreaning of rotten manare or leaf-moulu. Plant the balbs 6 to 8 inches deep, and mix wood ashes with the soil when planting, this material being a good stimulating plant-food, either applied to the aoll or afforded in the water naed.

Fruit Growing in America.-Some idea mby be gained of the acale on which fruit-farming is carried on in America from the operations of one eatablishment alone, the Hals Orchard Company, which, in 1891, planted 100,000 Peach trees in Gaorgia, Daring April and May this year 50 men were occupied all day in removing excens fruita in order to allow the rest to have room to develop. They begsin to come to maturity in Jane, and from the 20 th of that moath $35 \hat{0} 0$ men, sided by 50 maler, were engaged every day gathering and carting a way, filling 4000 baskets in the 24 hours. Imperfect, braised, and scratched fruits, separated from that in prime condition, amounted to 300 bushels a day. It took from 525 to 600 baskets to fill a railway refrigerator van, and each van load represented a value, including cost of gathering, packing, and tramport, of $f: 00$. Fiom this single orchard 80 van-loads were aent awey this year. In Ifouston Connty the caltryation of the Peach alone giver employment to $3+107$ people. Frko, Sept. 24, 18!5.

## EDITORIAL NOTICE8.

Advertisements ahould be sent to the POBLIsEER.
Nowrspapers.-Correspondents sending newospapers should be careAl to mark the paragraphs they with the Editor to ses.
Lustratlons.-The Editor will thanlfully recoive and seleos photographs or drawings, suitable for reproduction in these pages, of gardens, or of remarkable plante, fowers, trees, dc.: but he cannot be responsible for loss or injury.

Local News.-Correspontents will greatly obligs by sending to the Editor early intelligence of local svonts likely to be of interest to our readers, or of any matters which it is desirable to bring uncier the notice of horticulturists.

## APPOINTMENTS FOR OCTOBER.

## MEETINGS

TUGEDAY. OCT. $15\left\{\begin{array}{c}\text { Royal Horticultural Society's Com- } \\ \text { mittees at Weatminster; Horti- }\end{array}\right.$ cultural Club.
TUESDAY, (CT. 29 ) Royal Horticultural Socisty's Committeo.

TUESDAY, OCT, $8\{$ National Chrysanthemum Society, TUESDAY, OCT. 29-Havant Chrysanthemum (twodays) WEDNESD11, Ocr. 30-Jersey Chryeanthemum (twodays), THUBEDAY. ('Cr. 31 : Bighgate Chrysanthemum (two day8)

SALES FOR THE ENSUING WEEK.
MUNDAY, OCT. $7\left\{\begin{array}{l}\text { Dutch Bulbs at Protheroe \& Morris }\end{array}\right.$ TUESDAY, OCT. $8\left\{\begin{array}{c}\text { Dutch Bulbs at Protheroe \& Morric } \\ \text { Rooms }\end{array}\right.$ WEONESDAY, OCT. $g$ : Dutch Bulbs at Protheroe \& Morria TIURSDAY, Oct $10\left\{\begin{array}{l}\text { Dutch Bulbs at Protheroe \& Morris' } \\ \text { Rooms. } \\ \text { Sale of } 30,000 \text { Fruit Trees at the }\end{array}\right.$ by order of J. R. Peareon \& Som, Protheroe \& Morris
FBIDAX. Ocr. 11 Orchids and Dutch Balbe at Pro
sATURDAY, Oct. $12\left\{\begin{array}{c}\text { Du'ch Bulbe at Protheroe }{ }^{\text {s }} \text { ( Morris' } \\ \text { Rooms. }\end{array}\right.$

CORREOTED AVERAGE TEMPERATURE FOR THE ENGU. ING WEEK, DEDUOED FROM THE OBSERVATVONS OF FORTY-THREE YRARS. AT OHISWICK.-62'.5.

The greatest benefactor to the
FASTEUA. man race in our age, or perhap $n$ any other, has been removed by death. On September 28 died Louis Pastrer. He was in his seventy-third year, and had been in failing health for some time. His own life's work then was done, but its results and its overwidening consequences are the inheritanoe of the ages.
Pastedr was by education a ohemist, by nature an experimentalist and a reasoner. His advent was timely. Men oould not fail to reoognise the progress that soienoe was making, but the majority asked, as they always have done and always will do, cui bono? They looked as many do atill, on the work of the nataralist as laborious triffing. Inoapsble of appreciating its purpose, they indulge in mild ridiculo on the patient labour of the observer. To them the accumulation of wealth is the main business of life, and anything that does not direotly lend itself to that object receives bat soanty respect. Pasteur, in the investigation of the problems put before him, sought after trath and trath only. He never sought to enrich himself. It was not the money-value of the results that actuated him. His observations were made at once the common property of humanity. But the practical men were, in this onee, not slow to appreciate the value of the knowledge thus placed in their hands. We cannot in this place sllude to Pastectes many dim coveries, nor attempt to gange their value. By his investigation into the canses of enthrax, and his demonstration of the meane of combating it,

Franoe, it is said, was enriched by an amount exceeding the war indemnity paid to Germany. The silk industry, on the verge of ruin, was restored in oonsequence of his researches on the disease affeoting the silk-worm. The cultivation of a pure unmired yeast, and the setting forth of the conditions under which brewing and distilling can be successfully carried on, have proved of enormous benefit to those industries.
The means he has placed in our hands for the prevention and neatralisation of diseases like hydrophobia, splenio fever, oholera, diphtheria, even if they be not absolute in their results, are sufficiently so to justify the applioation to Pasteur of the epithet with which we oommenoed this note. Following up the indications inade known by Pastrut, our surgeons, headed by Sir Joseph Lister, now perform with confidence and suocess operations from which even such oonsummate operators as Fergusson or Liston would have quailed, and which, indeed, they would have denounced as unjustifiable.
Pasteuris suocesses have been very largely the result of his patient stady of the minatest of living bodies. Whether we call them germs, microbes, bacteria, bacilli, spirilla, it matters not; the point is to observe the conditions favourable to their development, and, as Marshall Ward has done, the ciroumstances prejudicial to them. Their life-history has to be unravelled with all, and more than all, the minute acouracy that a detective would employ in tracing the oareer of a criminal. With the knowledge thas obtained a basis for experimental proof is afforded, and these experiments have, at we have seen, eventuated in the most signal benefits to the animal kingdom, and to the haman race.

To the praotioal gardener it may be of interest to point out that the "oultivation" of the germs, the seleotion of some, and the rejeotion of others, and other methods adopted in the study of bacteria, are, so far as prinoiples go, identioal with those that regulate the procedures of the gardener.
To the gardener and the agrionlturist, again, the results of the stady of the baoteria of the soil are of primary importance. We do not recall that Pasteve himself took up this part of the subject, but it is so intimately connected with his researches, that it is natural to associate his name in oonnection with them

The distinctions of race, oreed, nationality, from one point of view, are effaced in the case of such a man as Pastrua. We may congratalate France on her distinguished son, bat we feel that he belongs to humanity, not to any special country.
On the quay at Boulogne stands a statue of our own Jenner, raised by grateful and sympapathetic Franoe. How graceful and appropriate a thing it would be to ereot on our own shores a monument to Pastivin, in many ways the lineal descendant of Jenner.

Dendrobium Phalenopsis vaf. holo LEUCA.-The quantities of the handsome Dendrobium Phalmaopuia var. Schroderiana which have been received during the last few yeara have brought many fine varieties, and among them a pretty clase of light-coloured varieties, more or lens tinged with pale lilac, and which go under the common denomination, "delicatam;" bus the namber in which the sepals and petals are pure white are very limited. In the Gardeners' Chroniche, Docember 3, 1892, p. 668, Dr. Kränzlif describes D. Phalenopais var. Rothuchildiane-a beautiful white variety, with a faint flawh of pink, which flowered in Lord Rotescaind's gardens at Tring Park. Later, another white appeared, which wae called D. Phalmonopais var, alba, but in that were some pink lines in the
lip. The variety bololeaca, which wo illuthe fig. 72 , appears to be the first wholly white wiety and it was exhibited by J. T. Howns, $\mathbb{E}_{1}$ Beechen Cliff, Bath, at the meeting of the Orchid Committee of the Royal Horticaltaral Societ, Augast 13, when it was a warded a Firt-clua Cop. tificate; and the plant has aince passed into the rich collection of Elijar Ashworte, Enq., Harefald Hall, Wilmslow, Cheshire. Of other varieties in which white predominates, one of the most remart. able is D. Phalænopsia var. albo-purpurea, flowen of which we received from Dr. Jessop, Roundhes, Leed: (gro, Mr. Tyson), in which the flowen in white, with nome dark plum-coloured making on the lip, the contrast between the lip and the whith sepale and petale being very remarkable.

Horticultural Club - The following antho arrangements for the conversaziones for the und three month. October 15," Botanical Rublen in Lapland and Novaya Zemyla," by Mr. C. E. Pumos, illustrated by apecimens of the flora. Norember 19 " Fiowere, Fraits, and Planta ia the Life and io tho Home," by Mr. T. D. Fish ; and "Tae Frait Sapply of Covent Garden," by Mr. Geo Monro.

Gabdeners' Royal Bene volent ingtitution. -The Rev. W. Wiles has forwarded to the secremery the anm of fifteen gaineas, being the amonat of tho harvest thankegiving offortories in Shirley Cburchon the 29 ch alt., in aid of the Gardenera' Rojal Beenorlent Inatitation.
national Chrysanthemum Society.-a largely-attended meeting of the Geaeral Committee, presided over by Mr. Brian Wynne, took place at Anderton's Hotel, on the 30 sh alt. The ecretary, Mr. R. Dean, brought ud a circular relating to the Jubilee celebration in 1896, which had been approved by the Prenident, Sir Eidwin Saundies, and by Mf. J. Ritchie, the Chairman of the Board of Directorn of the Royal Aquarium, and which is shortly to bo insued; and reported that a Jubilee achedale of prizes is in preparation, and that some hadiome special prizen had been promised. Some interetiong correspondence from the Colonies was read; ons correspondent writing from Timara, Now Zeskand, said some very fine new varieties of Chyymathemam had been raised in that locality, and it wae hoped that blooms of some of the bent, frozen in iet, would be sent to England in May next. The Secretary reported the amount of prize-money awarded for Chryanthemums and Dablise at the September how ; and the award of certain medale was confirmed. The Secretary reported that he hed arranged with Mesars. T. S. Warg, and J. Cemai \& Sons, to clothe the two fountaine with fowers at the coming October show, provided the front held off, and it was agreed, that in the event of their beint able to do so, a aum of money ahould be allowed to each for expensen of cartage. Seventeen not membern were elected, inclading two fellown; and the Hertford Horticultural Society was admitted to affiliation.

Change of Date of the chebtepiele Chrysanthemum show. - We are informed by Mr. Nelson, the honorary secretary of this Society, of the fact that the committee bave altered the deto at which the show wat originally fixed. viz, Wednesday, November 20, to Wednesday, Norember 6, an alteration called for by the forward atate of tho flowers of the Chrysanthemam.

At the Cbyatal palace fruit Show.Country Visitor to Gardening Prewman, "You wem to know all about these things; will you tell m (pointing to dish of Bearré Diel Pears) who Beand 10? I find his name on lots of dishes of fruit. Whe is he? Where does he live?"-G. P. explains tha the word is French, and aiguifies batterlike, the variet of Pear with that word affixed having flesh of buttery texture, - $O$. $V$. (coratohing his ear in unsestion). "Ab, dang it! I might a' known that; bas mias bate the Diel to do with Pears? "一G. P. "Nothias it is merely a dedicatory name."-C. $T_{0}$ "Is thes 10? Well, I think l'll go now."

Caystalibeo Palaceio Fauita.- "Mr. Punch teartily congratulaten the Royal Horticultural Scelety on their gran l show of Britiah-grown fruit (none "made in Germany"), and the Cryatal Palace Company on the excellent arrangements made for the mont advantageous display of thene magnificent fruits defendus, for "forbicden fruit" they certainly

The Devon and Exeter Gardeners' Mutual Improvement Association.-Tbe anual business meeting of this Aspociation, of which Sir Stafford Northcote, Bart, M.P., ia president, wae held in the Council Chamber of the Guildhall, on Wedneaday, October 2, at eight o'clock, the Mayor of Eseter in the chair. The buainess to be transacted
eecretary was re-elected. We learn from the committee's report for the aession 1891.95 , that they are able to report very favourably of the work of the association for the past year. Toe number of members at present on the roll is 89 , and the balance in hand $£ 2916 s_{0} 2 d_{0}$, ahowing that, numerically and fanncially, the association is in a bighly atatactory


Fig. 72.-DEMDeobtum phalanopsis nololevca: Llownas pune witity (oes p. 396.)

Were, ss, mach to the diagust, probably, of the apothecaries and family doctori, the visitor could not teate any of the luacious specimen attractively set before him. They were all les pommes du vcisin, but though "forbidden," their appearance was anything bat "forbidding." It came to an ead laat Satarday, when it is reported that all the fruits were safely got oat of the building except one aleepy Pear, whom nothing could arowe.
consisted of the reading of the Socretary's and the Treasurer's report for the past jear, both of which were adopted; the election of a president, vico-presidents, secretary, treasurer, and committee for 189596 ; and the tranaction of other business, and to consider the modification of Rales 3 and 5, as regards date of the annusl meeting and the appointment of two secretaries. The new president slected is C. B. Coxlus, Esq., Hirtwell Hosee, Ezoter. The
condition. An avening was set apart for short paperi by younger member of the amociation, and this proved to be a wise departare, for, not only were the short essays themselves of conaiderable merit, but the intereat thas given to the janiors in the protession had a most anlutary effect on the asociation as a whole. The review of the papers for the year proved as intereating atormerly, and the discanion arining therefrom brought out many valuable expe-
riences in actual practice. The association having decided to affiliate with the Royal Horticaltural Society, are now associated with that illustrious horticultural body, and receive all the privileges which memberahip conveys, namely, copies of the proceedings of the society as published to its fellows, a transferrable ticket admitting to all its meetings and exhibitions, and the privilege of nominating one of its members to bs ranked as a Fellow of the Society. By reolution, Mr. Andrew Hope was nominated and elected to represent the Ausciation. The antumn progrnmme of the seasion 1895.96, comprises the annual business meeting on Wednesday, Oct. 2; the reading of a paper entitled "Fruit as Food," by Mr. J. I. Penablley, Exeter, on Wednesday, Oct. 16; on Wedneadey, Oct. 30 , a discuasion, having as its aubject, " Window Gardening, and the Solection and Treatment of House Plants," will take place; the Rev. Dr. Dangar, president of the Training College, will give a lecture on "Carnations," on Wednesday, Nov. 13; on Wednetday, Nov. 27, there will be a discasion on "Judging at Flower Shown," which will be opened by Mr. W. Rowland, of Parkerwell Gardenx; Mr. J. D. Nanecawen, Whiteway Gardens, will give a lectare on "Wild Gardens and Pleasare Grounds," on Wednesday, Dec. 11.

- At the Carnival held at Exeter last week in aid of the hospitals of that city, this Association was represented by a foral car artistically decorated with fruits and flowers, the sides being trimmed with Bamboon, golden-lesved Elders, Ampelopsis, and other gay-coloured foliage. In the centre wis an living representation of Flora which, as a tableau vivant, was amusingly effective, the make up being highly humorous. Flora would perhaps have been more eavily recognised by habitués of Covent Garden ; but he suatained the part with commendable gravity and gracioumens of prezence. What was hailed at the "gardeners" car" was quite a feature in the procession, and in the report of the Carnival Committee in " highly commended."

Mr. C.P. SLOCOMBE.-The death warannounced a few days ago of Mr. C. P. Slocombe, who was at one time a prominent etcher and a master in the National Art Training School at South Kenaington. He had for some yeara been in a bad atate of health, and had long been unable to take any active part in the work of his profession. All students who were at the South Kenaiagton School daring the years he held his appointment there, will remember him as an especially able teacher, and as an adviser who could almays be relied upon for frank and intelligent criticism. Globe, October 2. [Mr. Slocombe wat a pretty conatant frequenter of the Royal Horticaltaral Society's meetings at Kensington and Westminster, and contribated occarional illustrations of plants, flowers, \&c., to the Gardeners' Magazine, when it was edited by the late Shibley Hibberd ]

The Torquay Dibtrict Gardeners' AssoCIATION in a very vigorons body. The programme for the coming seasion, as we learn from the Weekly Mercury, Plymouth, September 21, isaued by Mr. F. C. Smale, the Hon. Sec., is a good one. Tha Cargeanthemam show will be held at the Bath Saloons towarde the end of October. Thiz will take the place of the exhibition hitherto promoted by the now defanct horticaltaral society.
"The history of Gardening in Eng. land."-This work, by the Hon. Alicia Angerst, will compriss a sketch of the progreas in the art of gardening in this country from the earliest times. The plan and deaign of the gardens, what flowers were grown in them, the chief horticultarists and the principal booke in each period are treated of, an well as the various ehangen in the culture of -fruit and vegetable gardenf. Numerous gardens atill in exieter ce are cited -az examples of each successive fathion. In the equapters dealing with the earliest times, many old recirde are quated, and some tranacribed for the first time frout original MSS. Lettere and hroavehold aceenate, and noten from private MSS. of the seyenteenth and eighteonth
centuries, are also here printed for the first time. The book will contain sixty-five illustration of gardens, from MSS., engravings, sketches, and photographs. The work aleo comprises a copious bibliography of printed books relating to gardening down to the year 1837, chronologically arranged, and a list of the authors, placed alphabetically; aloo a good index to the whole book. The Appendix consista of a reprint of the portion of the Parliamentary Surveys of Wimbledon and Theobalds, giving full descriptions of the gardens there in the year 1649. The book will be pablished by Mr. Bervard Quaritce, 15. Piccadilly, London, at a cost of 155 . if subscribed for, the price to be raised to a guinea on the day of publication.

Late Strawberries.-Laat week we noted a fact or two concerning the unseasonable fraiting of the Strawberry in the South; and now we insert a note taken from the Newcastle Daily Journal of September 26. Mr. W. G. Macfarlane, frait-grower, Alnwick, sends as aome specimen plants bearing fiae ripe Strawberries from his gardens. They were gathered from runners made this year, and are the product of a seedling Strawberry named the Dake of York; they are really what ought to be the crop of 1896 This is the nearent approach to a per-petaal-bearing Strawberry ever raised up to this time. "We begab," bays Mr. Macfarlane, " pulling on Jane 10, and we will have frait antil the plants are killed by frost.'

- $\mathrm{A}_{\mathrm{s}}$ an instance of the extraordinary weather which has prevailed in Cornwall this sammer, it is atated in the Daily Telegraph that Strawberries were on zale in Pedzance market on September 20. One gardener informed a correspondent that he had gathered a fourth crop this reason. Apple trees bearing fruit are also in several instances atill blooming.

Floral Decoration of Rallway Stations. -To encourage the caltivation of flowers at the railway atations on the Midland Railway Company's system, that Company, says the Morning Post, offered $£ 200$ in prizes among their atation-maters. There were upwards of 200 entries for the competition, and yesterday the firat prizs was awarded by the jadges to the atation-master at Matlock Batb.

Pomological Society, Boskoop.-At the meetinga in May, June, Jalr, and Aagast, the undermentioned plante obtained First-class Certificates:Sambacus racemosas plamusua fol, aureis, from Mr. K. Wezelenbarg, of the firm of C. de Voe, Hazerswonde; Picea pangens glanca pendula (Koster \& Co.), from Mesare. Koster \& Co., Boskoop; Crategus oxyacantha foliis sareip, from Mr. P. van der Kraats, Liz, Boskoop; Magnolia Alexandrina folia variegata, from Mr. J. Walraad, Jr, Boakoop ; Clematis M. Koster, from Mr. D. A. Kister, Boskoop; Spiræa Bamalda Anthony Waterer, iatroduced by Mr. K. Wezelenbarg; Cbamæsyparis Lawsoniana glauca Triompbe var Boskoop, from Mr. D. Grootenvorat, B stzoop. Azalea mollis Machtelina Alberta, from the firm of G. J. Alberts, Buskoop, obtained a Second-clan Certificate. Hydrangea aurea maculata, from Mr. K. Wezelenburg, Second-claes Certificate. Picea pungens glanca (Korter \& Co.), raised from seed by Mewra. Koiter \& Co.; and Taxus baccata semperaurea, from Mesors. O: © olander \& Hooftman, being plants fally worthy a Firstclass Certificate, could not have this award owing to their havirg been too loug in commerce P. A. Ottolander.

Sweet Pea Cupid.-Oar readers will remember the illustration of this beautiful dwarf white sweet Pean, exhibited on Jane 25 , at the Royal Horticaltural Society, by Mr. Doualas, for Memars. Bubpra. A photograph of portion of a field of seven acres is now before us, and we are aseared that it blooms from the middle of April or beginnink of May, till checked by the froat. Meases. Horst \& Son, of Howndeditch, are the ole wholesale agents. to the trade in Great Britain and the Aurtralian Colonies. The plant does notig grow over 5 inches in height:

Bouquet-holders.-Mr. W. Trisgder, of Cardiff, cells us that he has had in use for the lat fifteen years a similar appliance to that figured in our issue for September 21.

Apples in the United States.-The helan reports to band from the best-informed quartern in the United States are variable in their character. Some five States commercially interested in the frit atate that not more than half a crop is expected; retarns from fifteen others are favourable; some fem are about average, and othera are expected to yield in excess of previous years. Taken as a whole, the yield is expected to be in excess of that recorded for some years past. Peaches appear to have anfered much in certain localities, and as to the ultimute outcome of the crop, no one appears to apeak mith any degree of certainty.

Waterlow Park, Highgate.--We min in. formed by Mr. J. Pallett, the Saperintendent of this park, that the exhibition of Chrysathemma will be open to the pablic on and after Satardag, Oetober 5 , from $10 \mathrm{~A}, \mathrm{M}$, until duok.

> Nursery Notes,

## A Midland SEED FARM

Durinar a journey from Birmingham through the notorious "Biack Coantry" to Wolverhampton, the traveller's attention is inevitably engaged by the great chimney stacks as they belch forth volumes of vile moke, or are surmounted by a weird blaze now disappearing from sight, apparently from exhaution, and again starting out as if making a determined effort to rise higher than previously. On either ide of the railway, the face of the land is covered with huge atacks of coal, or with vast cinder heapa and refuse from the mines and ironworks. As far as the eye can see, the acene is of this natare, the arface of the earth is totally unused except for the purpore of depositing the miserable heaps of refuse alredy mentioned, and inotead the genias and enorgy of man has been devoted to obtaining the wealth hidden in the earth's bonom. Agricaltare in anch a district seems out of place, as indeed it it, yet it hu not been driven so far away as the traveller woald sappose.

Ouly a few miles from Stoarbridge Junction, a atation not very far from the two mentioned tomnt, are the Kiaver seed farm belonging to Mearnh. Webb \& sons, of Wordaley, and these are in the centre of a fertile country of the most pictareaque character.

The Establishiment at Wordslit.
Before inapection is made of the need farma, horo ever, the visicor is likely to be shown the eatabliah ment of Mesorr. Webb \& Sjas at Wordsles. The extent of the basiness done by the firm, and the sanual growth of the same, may be here in a measare estimated. Tae commodioas buildinge ased for the atorage of grain and various root-seeds, horticultaral and agricultaral, together with flowering balbr for the garden, tell to eme extent what an amoanh of produce has to be deale with. Nor is the preasti accommodation equal to the requirements of the basiness. Tae targe block of building that were until very recently known as the new store housen, will be soon supplemented by a nef and the equally large warehouse now nearing completion, the oniy fault of which, in the words of one of tresi managers, who find lack of atore-room to be a gera inconvenience, is that it is not large enough. Meari. Webb do a large reciprocal trade with their agrien tural patrone, and considerable apace is requiale for the atorage of Hops and wool, an immenve lot of which was in atorage a week or two ago. The bt the trade is an extremely variable one, and no donbut bat firm lose money on this erticle in some seasoun Before possibly the saccoeding onas compensateo in bould this past of the premies is hurriedly lefft; it nowed bo added that the visitor will ansuredty be mot meent
and best machinea for every purpose may be seen' and the manner in which they perform their work, whether it be cleaning the seede, or other operations, is surprising.

## The Serd Fabms at Kinyrr.

Those who see only the establishment at Wordaley, have not nor can they have the faintest idea of the beautiful, well-cultivated farms in the neighbourhood of Kinver, where Webbs' geed generally are tested and raised for atock parposes. It is a lovely drive from the head offices along these healthful country roada before Kinver is reached, and it being our firt visit, our surprise at seeing such fertile land found frequent expression; questiona also as to the locality were freely asked and as willingly answered. We are now driving in the direction of Kidderminster," said our companion; "yonder on the left is Sedgley Church, which is said to stand on higher ground than any other Church in Eagland." In this district, then, we drove round the greater part of the 2000 acrea of land that Mesmrs. Webb \& Sons devote in a more or leas degree to seed-raising, and a good portion of which is their own freehold. This is only a mall part of the land that is cropped annually to supply the needs of the business. The aystem adopted is something like the following: All seeds are raised, tested, and aystematically rogued by competent assistante on the Kinver farms, but the produce from this harvest is "atock" seed, and to a large extent the "stock" seed is given out to nelected growers in suitable localitie to cultivate for Messrs. Webb, who take all the produce, and it is this seed that is sold to cuatomers. In this way the firm entimates that they employ annually in the Uaited Kingdom and on the Continent over 18.000 acres of land for the production of their farm and garden seeds, bulbs, \&e. We do not intend to speak of the newer or favourite varieties of the different graing or roots, or other agricultural crop. Experimental work is annually done on the Kinver farms; better varietien of each crop are sought, bat the resulte are to be seen in the numerous catalogues that Measry. Webb ismue, to which we will refer those who seek auch information.

## Garder Serds and Trial-arounds.

The little town of Kinver, lying low under the heights known as Kinver Edge, to most persons in the Black Country is only less familiar than their own town. Excursion parties may be seen any day pasing along the one important atreet the place can boast, or climbing the "Edge." The farm Mesars, Webb possens nearest the village, and very close to the old but pretty country church, is called Kinver Hill Farm, and it is on this one where the trialgrounds are, and most of the garden cropi, such as Potatos, Peay, and other thinga, are grown. Many acres had been devoted to Peas, and upwaris of 230 varietiea have been grown for comparison with each other. Potatos also claim a large share of time and attention in this manner, and each year the firm send out fresh varieties, which they believe are improvementa apon previous ones. Such are Progresy, Goldfiader, Record, and many others. Tarnips, Cabbagep, and indeed all Brassicas are grown and tested in large quantity, and efforts are constantly made to keep each variety as trie to its typeas possible. Webb's Emperor [Spring] Cabbage has long been a favourite, and some capical heads were seen when theme notel were taken. Lettuces, Parsley, Onions, and every garden crop is dealt with; but we mast hasten to notice, if only briefly, the trial grounds, where a great variety of flowers were being tested. It would be useless to describe thene grounds, where mont thing are planted in nursery lines or beda much at they are in any other trial ground. What firat occasioned remark were some bed of Poppies, á very good atrain of the Opium Poppy, Papaver somniferam, atrong in stem, bold in flower, and inclading various pretty colocirs. Larkspurn were quite a failure, the extraordinary character of the early part of the aeason had spoiled the prospect entirnly. Some of the plante were coming rato bloom, "others
were only juat through the soil. The graceful but uhowy Clarkias had fared differently, and plant of a good strain, both in mixed colours and in pare white, were in bloom. Delightful were the Eachacholtzias, blooming profusely in the different shade common to the flower; and by a quantity of E. tenuifolia we were reminded of a very pretty cream-coloured Enchscholtzia, with dwarf good habit, and a particalarly free bloomer, that, although old, is eldom seen. It was rather early for Godetias in the Midlands, though they were blooming freely enough in the South. Mignonette in quantity and variety ecented the air very perceptibly. Webb' D warf appeared of good habit, very strong, and a free flowerer. A nice collection of Zinnias, single and double, in bloom, were testimony sufficient that the atrain is an excellent one. There were Sweet Alynum, Collinsia bicolor, and the white variety; Candytuita, of which Webb's Snowllake seemed far and away the beat, The plant were bushy, and the flowers pure white and good. The coloured varieties had come very true from seed. The atrain of Gaillardias known an "Eclipse," may be commended an being in every way satiafactory. The French Marigold had come tolerably true from need, and the dwarf tuft-like habit encouraged is very pleasing. Asters were not in bloom when we taw them, but trials are made of a large number of these as well as other things, which we must leave unnoticed. Large and mall plota of the natural and other grasses, and breadths sown from Webb's popular mistures of Town grasey, various mixtures for alternate hasbadry, \&c., should be mentioned, as they are of intereat to all.

The above are impresaions felt during a hurried visit to Kinver, where extremes mest in auch a manner that the Black Country well nigh encircles one of the greenent, most delightfal landscapenincluding lovely Eaville-the Midlands can boast. P.

## Home Correspondenoe.

aticklebacks-The following British pecies are known, and deacribed by Yarrell:-Gasteroateus trachurus, the common threespined atickleback, in salt and fresh water; G. semiarmatus, found with the preceding; $G$. leiurus, mooth-tailed, alto common; G. brachycentrus, short-spined, found in the streams, ponds, and sea of the north of Ireland; G. spinulosas, four-spined, found near Edinburgh; G. pangitias, ten-spined, found both in sea and rivers; G. spinachia, fifteen-spined, common around our sea-coast. In the Annals of Natural History for October, 1852, will be found nome very intereating accounts of the habit of the stickleback during the breeding eason, by the late Mr. Warington, of Apothecaries Hall, where I well remember seeing them in his aquaria. W. T.

ROTATION OF CROPS FOR THE GARDEN.-On carefully reading and weighing, at I always do, the commanications of Mr. Willis of Harpenden in the Gardeners' Chronicle, on p, 366 I was rather surprised to light on the following entence in the middle column near the top:-"It is well known that the Cabbage tribe will thrive upon land: mach too poor to grow a good crop of Onions and Carrots" I should be glad of a little faller explanation of the sentence, which is the only one I question, in the three columan of Mr. Willis's powerfally-reasoned article, Bat taking the phrane, "the Cabbage tribe will thrive " as equivalent to the ground growing "a good crop of Onions or Carrots," practical growere will not accept the sentence at in accordance with their experience. They would rather asy that of the three crope named-Carrots weuld thrive beat on the poorest land, Onions on soils of medium richneas, and Cabbages beat of all on the richent of all. Practically, many of the fineat Carrots are grown without manure; Onions receive from 12 to 20 tons per acre, applied in the satumn; Cabbages, from 20 to 40 tons per acre, and atill aok for more. After many years' experience and observation of thene three crops in garden and field, I cannot recall a case in which a crop of Cabbages suffered loas of weight from over-feeding. Rich manuren may at timen develop abnormal tendarnean in winter Cabbagea or thouaand-headed Kale, but this can hardly be the meaning of the enfence in quation. At the other end of the scale we all know how easy it is to feed Carrote into
bolting, the scale, or coaraeneas. While an to Onions high feeding lead them into bullneckednens and other unprofitable wrys, while poverty of soil dwar: Onion into picklers. While thanking Mr. Willis heartily for all his other teaching on rotation of crops for the garden, I hope he will be go good as tu throw some additional light on the alleged affinity of the Cabbage for poor land, which few of ui have ever meen in garden or on farm. $D . T . F$.

LIME-TREE MITE. - The Lime tree in thieneighbourhood are, and have for mome weeks, been infeated by hage quantities of mitea (evidently a pecies of the so-cailed "red-spider"). The under-surface of the leaves was first infested. These curled up and fell prematurely. The tranks then became enveloped in a silvery web, looking at first night like the track: of dry slime left by an army of slugg. Up and down this web the mites continually move. They now form large clastera around the base of the trunk like lamp of yellow rebre. The enclosed ancople will give a slight idea of their numbers. They wera taken off in one lamp, and although I dareasy there are a few millions in the tube, they are an it were bat a drop in a backet, compared with the myriad on the treep. Geo. Parish. [The Lime-tree mite, Tetranychas tiliarum. Ed.]

NARCI88US FLOWERING IN GEPTEMBER. - OR the 21 st December, 1894, I planted one handred bulba of "Scilly white," which bloomed well during the last fortnight of April. The foliage was perastent for a long time, after that of all other Narcisai had disappeared, and even now it remains are atill visible. About the middle of Auguat, new foliage began to appear, which is now 10 to 14 inches high, and very atrong. The first bloom-apike were observed at the end of the third week in September, and now (on the 30th) more than half the balbs are either in full flower, or thowing for flower. Is not this very unuaal? No doubt my garden is a very warm one, but no other Narcisua has behaved in this precocious manner (excepting three bulbs of $N$. poeticus, which have leaves 4 inches long, but no Howers). For the last week the an has been very powerful, the thermometer in the shade at halfpart 8 a m, ranging from $63^{\circ}$ to $69^{\circ}$. W. To, Bishop Teignton, South Devon.

A recent beed cabe, -An anonymone letter, treating of our recent litigation with Mr. Shephard appeared in the lant issue of the Gardeners Chronicle, and we aball be grateful if you will kindly, in the interests of justice, allow us brief space for a discusaion of the commanication in question "Agri-horti" (the nom deoplume under which the identity of the writer is concealed) directs attention to "a fact that seems to have escaped notice," namely, that the "plaintiff registered as a trademark a certain device (a sheep as a matter of fact) embodying the words 'Shephard' Kale' a applied to that particular seed." So far from this baving been lont night of, we were ammoned to appear under the provisions of the Merchandise Marks Act, and it was solely on this point that the case was tried and decided. Most practical men most endorse the common-sense verdict of the bench. From "Agri-Horti's" letter we gather that he conaider it desirable that the ale of a useful vegetable should be confined to the man who is fortunate enough to notice the natural sport, and who is sofficiently shrewd to promptly register the variety under his own name. Surely be cannot bave reflected on the vast injuatice of the greater portion of the haman race being deprived of a natural valaable vegetable-food, because they may know nothing of the raiser who cho to call the variety after himself. We would also point out that we never on any occasion made use of Mr. Shephard'u trade-mark and that we merely sold a variety by ite own name As your anonymous correspondent faila to see the analogy between Mophard 'male, Nutting'a Beet, Wheeler's Imperial Cabbage, \&cc. (all of which were mentioned in the case), we fear it will be bopeles to demonatrate to him the very decided difference between selling "Shephard" Kale" and "Shephard's Kale Seed." "Agri-horti" drawn attention also to a reportiog error, which previoully we had connidered anworthy of contradiction, on the excellent, oldfashioned principle of "the least waid the oonest mended." He say :-Ank Mesars. Carter or Satton if they would allow any one of the Cabbage tribe to go out for seeding again that was "ove year only" growa from their pripate stocks?" Now in this case our atock seed wes parchased directly from the raiver by our grower, and "Agri-Horti" " misappre-
hension probably arises from an incorrect report pablished in a local paper, from which prenumably the Gardeners' Chronicle report was taken. This reads:-"Mr. J. F. Edney, a farmer, of Weat Titherley, gave evidence to having bought aeed from Mr. Shephard. He nold (presumably sowed) the seed, and saved some, and prodaced from it. This he sold to Mr. Toogood as Kale seed." We are anable to say how the misunderatanding arose, but the true report thould read as it did in one of our principal papers-the Southampton Times:-"Mr. J. P. Edney, a farmer of West Titherley, said in May, 1892, and July, 1893, he bought from Mr. Shephard a quantity of Kale seed which he sowed. He anved the need at Mr. Shephard's request, but after it had been harvested he said he did not require it. $H^{2}$ sold a portion of it to Mesors. Toogood \& Son aa Kale seed." Ao to the quention of selec. tionalladed to by "Agri-horti," the plante were several times carefully "rogued" by our grower, who has a practical knowledge of the technique of the work. The newepaper reports did not mention that we had a namber of witnesses in court (though the magistrates did not consider it necemary to call them) including two noblemen's atewarda, who were all prepared to attent that it wea imposible to diatinguinh the crops rained from Mr. Shephard's and cur seed growing side by side. These witnesses bad farther brought with them opecimen-plants to illuatrate the complete similarity. Oae other point only, and we will treapase on your valuable apace no more. "Agri-horti" writes as though no similar case bad been tried, when he might hear of two or three with very little troable. Toogood \& Sons.

THE PREEERVING OF FRUIT.-Permit me to thank Mr. J. J. Willir, Harpenden, for hie courteous and unefal angwers to my questions to be found in Gardeners' Chronicle, p. 216. 'The answera carefully atudied show how it comes about that so much jelly and jam are apoilt in the making through breaking down the atructure, as well as lowering the quality of the fruit through overcooking, as well at overaugsing. Truly, it seeme that the chemistry of fruit-preserving needs teaching, as thoroaghly as the theory and practice of plant-feeding and landmanuring. D. T. Fiuh.
the alut of fruit. - Many kinde of fruit are over-abundant in come parts of the country, and much of it is sold at pricea hardly paving the cont of gathering, to way nothing of carriage. We are so accustomed to look on Great Britain as a fruit-importing country, that no one seems to have thought of our exporting fruit in seanons of plenty to leas-favoured countrie: in northern Earope. Why should not some of our merchante try the experiment of eending fruit nicely packed in boxes and basketa to Norway, Sweden, Iceland, and the Baltic ports by steamer leaving Harwich. Hull, Grimaby, Goole, Newcantle, and Sanderland? Apples and Pears would be eapecially suitable fruita to aend, and these, with Damsons, and other Plums that will bear carriage well. hould find a ready sale. Ireland, too, is badly aupplied with fruit, unlesa it be American at a late part of the teason; and it might be found worth the while to send ithedce in somequantity. Tomatos, Melons, Figs, and Cacumbere, in the height of their season, might be added to this list of our exports to northern ports. $M$.

THE ROYAL hORTICULTURAL BOCIETY.-It IA to be regretted that Mr. Miller should have concladed an otherwise admirable letter in last week's Gardeners' Chronicls by indulging in a meer at the expense of the recipients of various medals and other swards made at the ordinarg mestiogs of the Royal Horticultaral Society. Were it not for the public apirit laudably support thete meetings and the who do so laudably mpport these meetings, and that render the Drill Hall gatherings at once the most intereating as well a attractive of their kind regularly held in any part of the kingdom, the great charm incidental o the Societpi operations woald be wanting, and horticalture would be ahorn of one of ite brightent central attribates. It is news to leara from one "Who bas never been to the Drill Hall," and who is matter, that the not a apecially fit anthority on the matter, that thene numerous exhibitor: at, or supporters of, the Drill Hall meetings, reaide-or to une Mr. Millor's phrase-are planted in and around London. There are mowe of us old frequenters of all partm of the kingdom, and if exhitorn come from torious exhibite, have found just they have merithown to there have found just the same favour exhibite of tho as who beenide exhibited towarde the aneer is as unworthy an it is anjuat, Lond it is to be regretted that gardener so highly eateemed as is

Mr. Miller should have so far forgotten hinself at to utter it. If the award made at the Drill Hall are so highly prized, whether they be medala or certificates, that permons from a wide area are con stantly exhibiting meritorious, if not always new, objecta to secure these awards, it is evident that they are held in eateem everywhere else if not a Coombe Abbey. Why does Mr. Miller aver that the whole thing is a farce? If these awards are farcen, then are the labours of the Society's Committees farces, then is the Society a farce; and so too is horticulture. After all, the Societs and the Com mittees will go on their way, even though Coombe and rave. If there has been a grave mistake made in relation to the Saperintendent-and nearly all deplore it-vet that error will not overthrow the Society, which in far too firmly fixed in the extimation of all who love gardening. The recent wonderful how of fruit at the Cryatal Palace, even though the pecuniary attraction the Society could offer were mall, is marked evidence, were auch needed that though atorm may rage or errori be made, the ereat body of horticaltarists have in it ample confidence. Mr. Miller treats with acant considerati, the privilege guinea fellowe evjoy, just because he cannot utilise bis own. Why envious of other opportunitien, because he is debarred from enjoying hem? What other society offers more than tha Ruyal Horticaltaral Society dons for the money? There are two grand chowa annually, those of the Temple and the Cryatal Palace, each of three day uration. There are some twenty meetinge at the Drill Hall, where there is generally a charming little how; and the fellow may see all the beat novelties the year can produce. There is the conatant use and enjoyment of Chiswick gardens, always intereating and attractive to lovers of gardening ; and there re the copies of the Journal (not of Horticulture, Mr. Miller) of which there are, at leatt, three yearly iasues that represont carh value. So much for the Royal Horticultural Suciety. Do not let ue seek to acuttle the ship in our efforte to ave the pilot. $A, D_{\text {a }}$

TRADE MARK8.-With reapect to your remarka on p. 371 , there is no doubt the Trade Marks Act as it applies to seeds stands on a very ansatiofactory basif. Some years ago, we tpent neveral haodred pound in cros-fertilsing Wheats, and produced a number of varieties which were distinct and of considerable merit; these we sold in mall quantities the first season, but certainly not sufficient to recoup ourselves for the initial outlay. The next year we were met in every direction with the advertisements of farmers who had grown these Wheate and offered the seed at just about the price it coat us to prodace, and this in face of the fact that we had regiatered the brand as a trade mark. In our endeavour to atop theee announcements, we were advised that there was no remedy. Oar greateat complaint was, that not only did the farmers advertive the Wheat by name, but they also used the title of the originator, such as "Carter' Stand-up;" and although they grew the seed, no atepa may have been taken to keep it true and pure, yet it atill went forth as "Carter"s Stand-up," and if the produce turned out unsatinfactory, it cannot bat have mont deterrent effect upon the introducer. We are entirely with your correspondent, that the law as applied to trade marks for seeds is at present absolutely valueleas, and the only retarn one gets for the care and expense of raieing new varieties true and pure is the reputation Which aradually growe round a house of atanding. James Carter \&f Co.

The "Thorovahfare" Tree.-The gigantic Oaks of Sherwood Forest are remarkable for varioun peculiaritien. The Greendale Oat, which we have here denignated the "thornughfare tree," has a roadway through its trunk. This was cut in 1724 , and was wide enough for a carriage and four to be driven through it. This was actually done by the Earl of Clare, who laid a heary bet that he could perform the feat, and he won the wager. The dimentions of thic archway are noteworthy. Its height is 10 feet 3 inches, and its width 6 feet 3 inches; the circumference of the tree in a line with the crown of the arch wat 35 feet. The tree is reckoned to be at least 1500 years old, and it is now propped ap and braced together with chaine. There are many other Liant trees in this foreat, such ae the Major Oak. which is 30 feet in circumference. The spread of this tree's branches overshade a apace 240 feet across from side to side. There is a hollow in its trank big onough to hold a dozan persons atanding clone together. The People, Soptember 22, 1895.

## SOCIETIES.

## ROYAL HORTIOULTURAL.

Great Exhibition of Briti8h-aqown Fquit Palace,

September 26, 27, 28.

THis imporisnt exhibition was opened on the day we went to preni last week. We could, therefore only insert a portion of our report. The remainder, together with a ammary of the papers rend a the Conference, will be found in the follomia culumns:

DIVISION IV
ingle Dishes of Fruit Grown in the Open Air (Amateurn and Dessert Apples.
The fruits exhibited in these classes wore of the linder excellence; competition was numerous in almost erery clam, and this part of the exhibition was most satisfactory
Adams Pearmain.-There were ten dishes of this ninity staged, and the quality was generally high. The mol woceesful exhibitor was Mr. T. Turton, gr. to Jro. Has efreaves, Req., Maiden Erlegh, Reading, whpee fruits wer superior in size to any others staged; 2nd, Mr. McKenie, gro to F. W. Cornwallis, Esq., Linton Part, Mid atone; and 3rd, Mr. Geo. Woodward, gr. to Roger Leagr Esq., Barham Court, Maidstone.

Cox's Orange Pьppin. -This class is always largely oontested, and there were magnificent fruits exhibited. The he prize for this popular variety was taken by Mr. T. Turros, who had first-rate specimons, or he would not hare
beaten the other fifty exhibitors. The 2 nd prize went to Xb . S. T. Wright, gr. to S. Lee Campbell, Esq., Glewston Court Herefordahire ; and the 3 rd to Mr. W. Colline, gr, to J. E Borland, Eaq., Sutton, Surrey.
King of the Pippins. - This excellent Apple was shom almost as largely as the one just noticed, there being lorty-dwo dishes. Very great difference was noticeable in the degree o size and of colour in the fruite from different localitien Those from Mr. A. W Yatt, Hatton, combined excellent colod with unusual size; and Mr. Jno. TURNER, Brighton, and Mín S. T. WRIGHT, who were 2nd and 3rd respectively, hed fruits of capital quality.
Mannington's Paarmain.-These did not strike us an being of more than average quality. Mr. T. Turton had the bati and Mr. Potter, gro to Sir Mark Col Letr, Bart, Sevenoak was 2nd; the 3rd prize was
Maptail.-About twelve exhibitors staged dishes of thin variety, and Mr. Thos. Spencer, gr. to H. C. Morfst, Meq. Rose, took lat prize, being followed by Mr. A. W YaTT, lastoin and Mr. Buxton, gr. to J. A. Forstikr, Keq., Chertoey
American Mother was only shown in six inatances, bat mos of the fruits were of more than average quality, and the
 and to Mr. Thos. Spewcer, and the 3 rd to Mr. S. T. Wrigit
Reinette du Canada.-Mr. Gro. Woodward had firstratio speciment of this rathar large Apple. He was followed by Mr. Monro, gr. to J. L. Bưcenall, Eeq., Beckeaham, and Purk H. C. Prineep, gr. to Viscount Portacha,

Uclicield. There were seven dishes on the table.
Ribston Pippin is an invaluablo spple, and an masy an forty-three diahes wore staged, being nearly as many no them were of Cox's Pippin. Bamarkable fruits were included this large collection, and it was with aplendid specimens tha Mr. A. Dcock, Arun Gardens, Rudgwick, won highest honount Mr. McKevzie was 2nd: and Mr. G. Thompson, gro to Menso Mr. MCKEMZIE Was 2nd; and Mr.
Hosemary Russet.-Mr. P. CAVAKAGE, Boohampton Lave, S.W., who won 1et place for this variety, had good areag exhibition fruits; Mr. T. Turton was 2nd with smaller, mon highly-coloured fruits; and Mr. Bridges, gr. to W. L. BEDIEAD Eeq., Brentford, was 3 rd.
Scarlet Nonpareil found eight exhibitors, and the let priti was taken by Mr. Empson, gro to Mrs. Wharield, amplay Mr. Mckenzie
Worcester Pearmain, in about twenty-ane disber, loolet vary bright, the colour generally being good. Mp. I WAEETIELD, Bearsted, had fruits of extra colout, and wain Mf. Kluict, Lapgley, Maidotone, wat and Mease, gr. to A. TATF, Esaq., Leatherhesd, 3rards wore stand Any other varicely. - Thirty dishes or upwaras wrou of st, Edmund's Pippin, shown by Mr. MCKENzIE; a good dien Edmund's Pippin, shown Cy Merrin, gr. to the Hon. Q. Gravenstein, from Mr. C. Horrin, gro to and nice Jofleto from Mr. P. CaVAVIGE, Roehampton Lane, Jrd.

## Coorling Apples.

Aljoiston. -Of the dowen exhibitors of this excellent cooking Apple, the most succestal was Mr. McKErizis, excellent fruits: Mr. GEO. WOODW LED mades good 20e; Mr. P. Cavaraig was ard.
Gismarck. - Only an equal dozen exhibited dibhe we Bismarcl, an Apple that bas become fairly populat. 180 MCEENzIE had excellent fruits, and was iet; whan Mr. Goo WOODWARD had fruits of almost equal rindity; ad grd.
 boll by being extulated in sbout thition
marled difference is the quality of the soveral dishes，bus some Brat－clane specissens were included．Mr．C．Ross wa let；Mr．Newman．gr．to J．A．TULI，Enq．，Chertiney，2nd and Mr．T．W．Starilup，Maidatone，3rd．

Bramley＇s Seedling．－The bost dish of this varioty came from Mr．Ausfir T．Kıurice，and were large and good．Mr GET．WOODWARD was 3nd ；and Mr．O．ROSS，3rd．
Cellini Pippin．－There were firteen dishes of this very pretty and not leow useful fruit．The colour generally wha wel developed，Mr．Killicis，who was let，had fruits of large bize and of meolum colour：Mr．MCKenzie was 2nd，and Mr． Gro．Goudsmite，3rd．
Cox＇s Pomona．－There were about twenty－three dishes of this variety staged，and the fruits being good in size and of exceptional oolour，they looked very pretty，list，Mr．C， Ross： 2 ad，
WOODWARD
Duchess of Oldenburgh．－This pretty Apple is evidently but Jittle popular，oaly five diohos were show $a_{0}$ and two of there were very poor．Mr．S．T．Wriget was 1st：and Mr．G．H GonDWIN and Mr．S．Hainee，gra to the
High worth，2nd and 3rd respectively．
High worth，2nd and 3rd respectively．
Dum：lou＇s Seedlinq．－Mr，Brincwrlu，Mill House，Orsett Grays，was 1st，and beat twenty－one competitora．On the whole，this variety was exhibited in satiofactory condition． The 2ad prize went to Mr．C．Ross；but why the 3rd prize whe withheld we do not know，unless it was because most of the fruite were shown under the name of Wellington．
Ecklinville Seedling，－Although this large Apple is of soft taxture，and not suituble for long leeping，the variety is an excelleat one for mid－season servico．Out of seventeen ex hibitors，the successul one was Mr．Mc Kemzie；and he was
f illowed by Mr．GFo，WOODWARD，and Mr．C．HERRIN， f lllowed by Mr．Gro，WOODWARD，
Dropmore，in the order of their names．
Emperor Alexander，being shown in excellent condition， made a capital display．Mr．McKfwzie had the best among $t$ wenty other competitors ；this exhibitor was followed by Mr． Buxtor and Mr．GEO．WOODWARD．
Gascoigne＇s Scarlet Seedling．－Eleven dithes of this variety， equally well coloured，made a similar diaplay．lst，Mr． McKenzie；2nd，Mp，Geo．Goldsmite；and 3rd，Mpo Gen， WOODW $\angle$ RD．
Golden soble．－These fruits were in great contrast to the preceding high－coloured varieties，generally the quality was frat rate．Mr．QEO．WOODWARD took 1st position，Mr． MCKENIIE 2nd，and Mr．G．Garaway，Bath，3rd．
Golden Spirs filled six dishen．Mr．Woodward had excel lent examples，and Mr．Gozdemith was 2nd，followed by Mr．T．W．STARTUP，
Mr．T．W．STARTUP．
Grenadier．－Only two dishes were staged，and the let prize was withheld．
Havetiornden（Avev），This worthy Apple was ataged by aftese eshibitors；the quality of most of the fruite was very good．Mr．McKEnzie took the lat place，and the 2nd and 3 3rd prizes went 10 Mr ．W．Bannioter，gr．to H．ST．VINCEMT A Mrs，Eaq．o Westbury－on－Trym，and Mr．WOODWARD，
Lane＇s Prince Albert．－Mr．C．Ross with splendid fruito won 1 st prize from eighteen competitors．Mr．H．C．Prinser end Mr．S．T．W RIGET，took 2nd and 3rd places respectively． Lor 1 Derby，－A grand lot was exhibitod．The lst prize wa taken by Mr．GOLDSMITH；the 2ad by Mr．WOODWARD；and Mr．G．WAKEField，Bearrtead，was 3ed．There were twenty． two dishes．
100 d Groswenor was displayed by ten exhibitors，and we thought that the quality was not more than average．Mr． thought tuat the quality was not more than average．Mr．
WooDW ARD，however，had a dish of very good fruits，and he Was followed by Mr．Mc Keizie and Mr．R．Webe，
Lord Suffeld，which occupied the next pasition，is of much the anme coloor．There were twenty－four diblhes，and the prizes were taken by Mr．Turton，Mr．McKenzir，and Mr． J．E．Burton，Rr．to sir E．PAUL．Bart．，Twickenham，in the ame order．
Me．e de Menage is a very different coloured fruit．Mr． McKemele＇s dish was of very high colour，and the fruits from H．S．MOFFAT，Eeq，Goodrich Court，and Mr．C．Ross，who were zad and 3rd，were also of good quality．There were $t$ welve d＇shes．
Northern Greening．－Eleven diehes of this Apple were Shown，and thoee from Mr．H．C．Pringep，who was lat，were capital．The 2nd and 3rd prizes went to J．R．Brougenm， Req．，Carmhalton，gr．，Mr．W．Jones，and Mr．W．Cottrell． Newito Wonder is a very pretty fruit when seen in per－ fection．Mr．Goldsamte had exoellent apecimens，and was tollowed by P．Crowlex．Keq．，Oroydon（gr．，Mr．Harris）； mad Mc，B．T．Wrient．
Peasgoxd＇s Nonsush，perhaps，makes a more handsome display than any other Apple；size，form，and colour it combines in an unasual degree．Excellent fruits were seen in the eightoen diahes or so that were etaned．Mr．McKeNzIE wes lit，Mr，
 Tring，isd．
Potts＂Seed ing．－The best of fourtoen dishes was that from Thos．Ridaw ilio Eaq．o Orsett，Grays，Esoex．He was fol Mr，G．HELMA．CAVANiGE，who had very goad fruits；and Mr．G．Belmak，Lewes．
$\$ p_{t}$ ncer＇s Favourite．－There ware seven dibhes of this golden－ ooloured Apple，and Mr．WOODWARD won lst prize。 He wa followed by Mr．T．W．STARTUP and Mr．S．T．Wrioht．
SWring Cautle，exhibited in a score of cases，was bent froms Mr．C．A as；and he wae followed hy Mr．GoLDSMMTH，and Mr．J．Fisoi Hill，Watford．
Stona＇s．－Ton good and fairly oven dinhes of this large fruit were ahown，bat Mr．MCKEwzE won，and he was followed by Mr．WOODW AnD and Mr．C．Ross．
The Quean is a very protty fruit when eeen is the parfeo－ thon esbibited by the epesimens from M M，K．C．SAvpEH：the

Qod and 3pd prizes were talien by Mr．Mokevzif and Mt Goldemith
Tower of Glamis．－There were fourteen dishes，and most of them were of very fine quality．Mr．Woonward，who was lat，was followed by Mr．C．Ross and Mr．T．W．Startup．
Warner＇s King．－Mr．McKenzere had the beet dibh uf fruits， and of the other twenty－one exhibitors，Mr．WOODWARD and Mr．Wrioht were succesfiul for 2nd and 3rd places．
Waltham Abbry Seedling．－There wero five competilors，and the boat was Mr．T．W．Startup，who had five very fine truits．Ho was followed by Mr．MCKEMzIE，and Mr．G．T． Wriget．
Any other variety，－There were twenty－nine exhibitors in his class，and a good number of varietios were represented． The let prize went to Mr．McKenzie；Mr．Woodward，with apital Belle Duboise was and；and Mr．T．W．ATartup，who had Tyler＇s Kerael，was 3rd．

## Degsert Prarq．

Benper Diel．－let，Eapl Pfracy（gri，Q．W gthon），Syon Houce， Brentford，for examples，first class in every point．2nd，H．81． Vinceat Ampa，Feq．．，Westbury on－Trym（gro，Mr．Bandieter） whose four ware better coloured than the（Et prize lot，but it whose four ware better coloured than the 1st prize lot，but it
was dacking in size．3rd，Sir E．G．Loorr，Leonards Loe

Beurrt Hardy．－Of this fine Pour there were only seven ontries，and the samples varied greatly，both in size and in colour．1at，Roger Leigh，Esq，Barham Court，Maidstone （gr．，Mr．Wuodward），with very fine large fruits ：2nd，Mr．H． C．Prinsep，gr．，Buxted Park，Jckfiold；3rd，C．R．W．ADEANe， Esq．，Cambridge（gr．，Mf，J．Hill），fine fruit of high colour， that eeemed to us as gond of bottor than Mr．Prinsep＇s．
Beurré Superfin．－Of this variety thare were four entries， the lat prize going to Mr．G，WOODWARD，Barham Court；2nd， to Mr．Goldsmith，Leonard＇s Lee；and 3rd，to Sir W．Gear （gr．．Mr．Cotterell）．
Williams＇Bon Chretien．－This variety was，of course，long past its best，and the fruits shown were large．The best as regards condition merely，came from the Hon．W．LOWTH FR＇s arden，Wickham Market．The awards were as follow：－1st， Mr．Alfred dF．Rothechilid，Halton，Tring（gr．，Mr．R．C． Sanders）；2ad，Mr．O．HerRim．gr．，Dropmore ；3rd，Mr． 8pottiswools，Brighton．
C．nferen．e．－Only three dishes of this variety were shown， and Mr．G．Wo inward wae let，Mr．G．Wyteres ad，and J．W．Melieg，E•q．Ohingford（gr．，G．Nicholeon）， $3 \cdot d$.
Maréchal de la Cuur．－Five dishes of this variety wern nhown，and all from South Country gardons．lat，Mf．A Goldsmith，Leonard＇s Lee，with very fine examples：2nd， ．B．D．Wivgrield Digbl，Esq．，Sherborne Castle，Dorset
gr，Mr．Pragnell）；3rd，Mr，G．Woodward．
Doyenné du Comics，－Nine dishos of this fine early Pear were exhibited，all boing of remarkably good quality，although
difforing much in mize．1ut，Mr．GovnampTI：2nd，Mr． $\mathbf{G}$ ．
 Woodwar
Derronilear，－Of this Pear there were mistaen entries，savaral of them being of the usual brilliant crimson and russet tints seen when the fruit is at its best，and none were deficient in aize．The 1st prize went to a dish much less ripe than most of the others，probably owing to its being epslier grown，
 Colline）；2nd，Mr．J．8ims，Maidstone，of very high colour 3rd，Mf．日．Goldsmith．
omile d Heyst，－Foar dishes of this variety were tabled， varying much in the size of the fruits．Grandly－growin examples came from Mr．©．Wuodward，1st；from Mr．A． Goldsyirte，and；and a dish of rather undersized ones from Mr．J．Nowetic，A bergavenay．
Fondants d＇Automne，－Of this variety eight dishes were slown of greatly rarsing marit．The 1st was show a by Mr．J． Grbyov，gre，Chippenham；2nd，M
Dorking ：Jrd，Mr．H．C．Prinsep．
Glout Morcean．－Eight disbes were tabled of fairly evan quality，1st，Mp．G．Goldbmite；2nd，Mp．W．Cottereld ； 3ed，Percy Lawrencer，Earoo Clapham Part，S．W．（gr．，Mp． C．W．Chard）．The samples came from widely separated parts of the country，as Bath，Strestham，Tonbridge，and Shipton－ on－Stourp．One exhibitor had shown Beurré Bachelier under On－Stontip．One
Josephine de Malines．－There were nine entries in this cla日3， and the fraits were of very varying size and appearance．lat， Captain Carstairs，Mewbury（gro．Mr．C．Ross），highly coloured fraits，large and clear in the akin；2nd，Mr．BA MIETER，W eistbury－on－Trym ；3rd，Mr．J．Hille，Cambridge． Lomise Bonne of Jersey．－This was a large exbibit，the dishes aumbering $t$ wenty－four，and most of them were of good
size and bright colour．1st，Mr．$G$ ．GolpsMrit ；2nd，Mr．W． Kinge，gr．，Gatton Park，Reigate；3rd，Mr．J．Nowell， Abergavenny；this lot of fruit beating even the wianin Suseex diah for bigh colour．
Marie Lowise．－Of this favourite Pear twenty－two diehes were shown，some being ripe，whilst others watiod $t$ wo of where wooks yet to makisp them eatable．list，Sir $\mathbf{E}$ ．Pavi， Bart．（gro．，J．E．Burton），with large，clenrakinned examplee， etill green ；2nd，Mr．G．Goldsaititi ；3rd，Mr．H．C．Prtwaep
 C．Moffatr，keq．，Tonodriche．

Pitmaston Duchess．－－Of this showy，it not particularly good Pear，twenty－uix dishes wore ahowa，including neveral of large size，but nothing of superlative bigaess was noted．The Anest were thowe ahown by Mr．J．Cowlev，who wat
Mr，G．WOonW ARD，2nd．Mr．COTTEMELL Was 3rd．
Sonvenir dx Comerts．－Ten diabes of thla ahowy variety were tabled，moutly of large size and high colour，although afp－ tabled，mouty the largent fruit，thoee from Mr．WY witt，Hatton，
were green．1et，W．\＆E．Welle，Hounalow（yr，Mr．
Singleton）；2nd，Mr．T．Tleron ard，Mr．G．Golvomish． Singletor）：2nd，Mr．T．Turrow ；Ard，Mr．G．Gonismin is．
Thompsoin＇s．－Three dishes of this nice－sation and useful variety were shown．1st，Mr．G．Colnswith；2nd，Mr． Gibson ；3rd，Mr．Cotterill
Triom the de Vienne－Six diches were shown in this instanc＝ me of them conaisting of perfectly ripe fruits．Jot．Mr．K C．SANDERS，Halton；2nd，Mr．Q．WOODWARD：3rd，Mfo J Grbsom．

Winter Nells．－Ot this very delícious and valuable late variety there were seven dishes thown；let，Mr．H．C．Phingerp 20d，Mr．A．Goldsmith ：3rd，Mr．Rick woon，Twickenham． Beursé d＇Amanlis，Beurré Rance，Maréchal Soult，dike a Marie Louice in ahape；Gansell＇s Bergamotto，Jersey Gratioli， good，but neglected variety：Flemish Benuty，benutiful，but of poor quality：Beurré Clairgoau，of which the rame may be anid：Marie Louise d＇Ucele，Duchoes d＇Angouleme．Princesp， Brockworth Park，Soldat Laboureur，Jargonelle．Ist，Mif． R．Edwarde，gr．to G．H．FiELid，Keq．With Madame Treyve \％nd，Mr．Cottrafll ；3rd，Mr．Roalehs．

## Drife Fruits．

It is a pity that these clasess were not taken up hy nore com－ petitors，as it is now gonerally believed that in the event of more extended hardy fruit culture in this country it will be increasingly important that in some measure we should apply the syatem of fruit preserving to largely practised by conti nental growers．Sufficient was shown notwithetanding to demonstrate to visitors who had not before seen fruits treated in this manner，that good results have already been obtained in instances where the system bas been tried．All the fruit bhown in the following classes must have been grown and dried in the British Islands．
The lst class was for a collection of dried fruite，and Mr W．A．Trotter，Ledbury，whe awardel the lit prize for a collection，principally composed of Apples either as rings or cord，or whole fruits．Varieties so trented were Golden Noble，Hawthornden，and Flower of Herts．
Some attractive－looking＂ringy＂of Apple Galden Noble， recured another lat prize for Mr．Trotter，in the class for 1 lb ．weight of Apples alice 1．Thore was no competition in these two classes，but in the next for 1 lb ．weight of $\Delta$ pples， driod wholf，Mr．Trotrer，who was list with good－looking ruits of Flower of Herts，was followed by Mr．R．W．BuLL The best exhibit in the class for Plums，was also from Mr TROTTER，who exhibited a variety of this fruit all of inviting appzarance．Both Plums and Damosons were included some dried during the present season，and others in 1891 W．Bull was end．Cherries，dried whole， 1 lb ．

## DIVIGION VI．

## Spectal Prizes．

The Worshiptul 0 mpany of Gardeners offered three prizes for nix varieties of hardy fruits grown in the open air，two gallons of each，at least two kinds of fruit to be represented． There were four exhibitors，the 1at prize going to Mr．S．H． Goonwin，Mereworth，who had akips of excellent fruit of Lady Henniker，Cox＇s Pomona，Loddington Seedling．Blenheim Orange，and Cox＇s Ocange Pippin Applea，the latter particu－ larly fine ；Dojenné du Comice Pearn，a splendid lot of fruit， very even，and finely finiahed．Mr．G．Trbsutt，Isleworth， was 3nd，having Lady Henniker and King of Pippins Appler， Buronne de Mello and Louise Boane of Jerey Peara，Belte de Septembre（Autumn Beauty），and Sandali＇s Pluma ；a more varied collection，but lacking the superb finish of Mr．Goop－ Wri＇s contribation．Mr．A．W YATT．Hatton，Hounslow，came 3rd ；he had Pitmaston Duchess and Durondenu Peare：Duches a＇ Yavourite，Yellow Iagestre，King of Pippinm，and Cos＇s Oraage Pippin Apples．
Mr．A．Wrirs apecial prizes for huhtl of Apples （ 12 lb ），of a cooking variety，and half a bush il（ 30 lb ．） ages as maple，picke）for market in as many pick－ preking to be statei，the ；cost of packages and method of and privato gardeners，brought seven competitora fteurs prize going to Mr．Orindrod，ge．to P．T．Philitpy．Eel who had his fruit packed in three ordinary oblong hampers three layers in each；the two lower layers packed with the onse of the fruits downwards，the upper layers on their sidea each layer kept secure by pads of wool placed to fill up
the spece；the coat of the baskets， $2 s .6 d, 9 d$ ，and $8 d$, as they varied in size and quantity．The baskets contaiaiag the culinary Apples ware lined with atiff brawa papar，inter lenved with bluo，and the frait was each wrappel in tho latter． corrugated peper，interlostred with slue sel laid over the top of each basket when filled，then wood－wonl， and the lid fastened down．2ad，Mr．Cotterell，gr．to sir W． Gear，Tonbridge，who had carefully graded fruit in bozas． One containing Pitmaston Dachese Poars，and one with Wor cester Pearmain Apples packed in coloared paper and wood． wool，the coet of the boxand packing for the Pears was $6 \frac{3}{3} d .$, and that for the Apples，ad．Though anly ane prize was offored，and prize appeares to have been awarded to Mr． Cottraell．
There wore ais competitors with a packago，basket，or therwize of 12 lb ．of Graper received by rail．The lat prize went to Mp．G．Cooper，Sunninghill，who had packed（apps－ rently Groe Maroc）in an ordinary stout white wicker Grape baaket，lined with soft paper，the banches carrying a benutiful bloom lying close to each other，the stemas of the bunches recurely sastened to the rim，and which，to all appoerance． wight bave been carried any distance without disturbance．
given to the packing. 2nd, Mr. J. Gore, Polegate, packed in much the eame way, having the same varietie3, but as far as much the eame way, harised no particulars of cost. 3ed, Mr we could see, he $\mathbf{H}$ Soureser Eastar Costle similarly Harris, gr. to Lady H. Somerser. Eastnor Castle, similarly packed. Gros Maroc and
varieties of Grape emploged.
There were seven competitors in the class for the best picked box or packages of Peaches, twenty-four fruits, received b rail. Mr. W. Wells, gr. to F. G. Arbutanot. Esq., Bexley, took the 1st prizs, having a layer of fruit, each wrapped in tissue paper, and packed in wood-wool, the cost of box and packing. 8 d $d$, an ordinary shallow deal bor being employed. 2ad. Mr. R. Grindrod, who had a similar box lined with coloured papar, each fruit in two welps of soot paper, an coloured papar, each fruit in two weips of sotionaper, an packed in moss; no particulars as to cost suppias. Pentney, gr. to A. J. Howard, Eaq., Isleworth. wh mod-
wrapped his fruit in soft paper, and then packed in woodwrapped his fruit in sott paper,
wool; cost of box and packing, $7 \frac{1}{2} d$
There were several competitors with a box or other parkaye of ripo Pears, twenty four fruits received by rail, and Mr. W. Wells was placed 1st, with Beursé d'amalis Pears, packed in wood-wool, the esst of hax and material, 8td.; 2nd, Mr. A. bor and packing, 4d.
The prizes offered by the Vegetarian Federal Union, for selections of specimens of fruits, nuts, grains, \&c., suitable fo growing on a 2 -acre plot, did not bring any competition, so far as we could learn.

## Misceilaneous Fruit.

Among the ron-compretitive collections of fruit, that from Messrs. JAs. Veltch \& Sons, Royal Exotic Nurseries, King's Road. Chelsea, was conspicuout. On one table was a remarkable exhibit of Apples representing a good number of varieties, which, from the qualities they cossess, are the best that can be selected, and each of these was ishown in excellent condition. Another table contained a collection of large and choice Pears of the best varieties, and individually the dishes were excellent
Capital fruits of Laste Devoniensi, Peach from a south-west wall were shown, and sprays and fruits of Rubus laciniatus, a first class Blackberry, also Alpine des Quatres Saisons Strawberries, White Grafes, Currants, Damsons, and ornamental varieties of Crabs. Sprays of the new large Winter Cherry (Physalis Francheti) were roticed also (Highly Commended).
Meskrs. Jno. Peed \& Eons Roupell Park Nurseries, Norwood Foad, London, S.E., staged a collection of Apples and Puars well leserving of remark (Commended) ; and from Messrs. CHas, Ler \& Sos, Hammersmith, a similar collection was CHas. LeE a Sos, Bammersmith, a similar collection was quality (Very Higoly Conmended). The Australian Irrigation Colonies were represented by some Mildura Lemong, and Coloaics were repre
Measrs. Jno. Laing \& Sons, Stanstead Nurseries, Forest Hill. S. E., coverel a cable with remarkable Apo'es and Pears is a number of varieties. In large baskets of Apples and dishes of the same, were splendid Cellini, Cux's Orange Pippins. and Washington (Very Highly Commended). Mrs. B. Wells, Crawley, Susex, had a small collection of Applez, and exhibited a fruit of Peaggood's Nonsuch, grown by Mr. Mortar, Upper Norwood, said to weigh 1 lb .10 oz .
An interesting collection of fruit was exhibited by Mr. Whil Taylor, Hamptod, Middlesex, which iccluded Apples and Pears in variety, most of them good in coloup; Coe's Golden Drop, Grand Duke, and Belle de Septembre Flums; and bunches of a hardy Grape, named Reine Olga de Wiirtemburg, recommended for open walls.
Mr. Owen Thomas, gr. to Her Majeaty the Queen, Windsor, exhibited about 100 dishes of Apples and Pears, most of them being of first-rite quality. No attempt had been made to arrange these in the form of a Trophy, as was done at the exbibition last season (Very Eighly Commen:ed).
Mr. JoHnson, Hager Hill, Ealing, had a stand, where he Exhibited specimens of his Mushroom spawn; and another stand was devoted to the display of Orr's Patent Storing-trays for fruit or other light articles. These wooden trays are made in an ingenious manner, that when fitted together, they form a substantial stand, and they are easily pucked for traneit.
The Hortienltaral College, Swaniey, showed forty-four dishes of Apples of favourite varieties, several, viz., Bramley's Seedling, Feapgood' Nonsuch, Emparor Alexander, Gloris Mundi, Melon, Councillor, Norfolk Beaufn, Wathington, being above The usual atandard of quality.
Miscollareous Exhection of thens. Felcoe RTDEA, Orpington. Kent, centa collection of twenty-one dishea of Tomato Duke of York, a form apparents of Sutton's Perfection. The fruits smootb, rogular as to size, and ripe, each dish held nine fruits. Au excellent exhibit.
Messrg. Sutron \& SOns, Reading, showed an enormous screen, 6 feet high and 60 feet long, on which were displayed fruite of each of the varieties of Tomato grown by them ripe Was a good method of showing the fraiting capabilities of the different varietifs. but on the whole it struck us as being overpowering in extent and in the mass of vivid colour. (Yery bighly commended.)
Nowa Seotian Apples were thown by Megsrs. Nothard \& Lowe, Cotton's Whanf, Loadon, E.O. The varieties were Cherenataiv, alad Bank's Red Gravenstein, a smaller fruit than Mr. W. M. Wher very bright looking.
Vavorite in nine examples, some very prettily netted Rarl'a bat alightly. A Yote of pies, some rery prettily netted, others

filled with fraita on maiden trees in pots, two large tabies bateets. A great mound of Bismarch Apples in dishes and centre fi one of the tables, and was flanked by two gro the
upright Cordons, loaded with fruit of the same variety Of fine size were Apples, Jubilee (new), King of the Pipping, Coz's Pomona, Hawthornden, Atalanta, Warner's King. Betty Geeson, Bramley Seedling, Ribston Pippin, Lucombo's Seedling, Mère de Ménage, Ecklinville, Washington, Yorkshire Beauty, Nanny (the famous Sussex App'e) Sandringham, Duchess of Oldenburg, and Cellini. (Very highly commended.)
Messrs. CHeal's exhibit of Pears inciuded fine samples of Duchess de Mouchy, Abel Fetel, Doyenné du Comice, Beursé Diel, Beurré Hardy, General Todlebon, and Duchesł de Nemours, bis stewing Pea; Csaseiller de la Coap, Gloat Morceau, Laise Bonae, Lêjn Leclerc, and Pitmiston Du:hess.
Messrs. W. Paul \& Son, Waltham Cross, had a table thinly aid out with dishes of Apples and Pears of generally high quality. Of Pears were remarked Beurré de lassoanption, Doyenné Boussosh, Beurré Diel, Frederick of Wirrtemburg' Mrie Louise d'Uccle, Vicar of Winkfield, Beurré Bachelier Yan Mons, Léjn le Clerc, Merame Treyve, Glout Morceau, \&c. Of Apples in fine example, the following were (habeth, Waltham Abbey Seedling, Lord Werby, Beauty Waltham, Duchess' Favourite, Forge Wealthy. Cox's Pumona, Reinette du Canada, stone's, Bis marck, Stirling Castle, Emperor Alexander, Warner's
Cellini (Highly Commended), King of the Pippins, \&c,
Messrs. S. Spooner \& Sons, Hounslow Nurseries, Middlesex exhibited a group of Apples and Pears in considerable variety The quality was highly commended.

## Miscellaneous (Flowers)

From Mr. Thos. 9. Ware, Hale Farm Nurseries, near Tottenham, was exhibited an extensive display of Dahlia blooms, including most of the sections, each of which was well represented, considering the advanced date in September A collection of Begonia plants in flower, single and double varieties, was also staged by Mr. Ware.
A group of Begonias in flower, and Chrysanthemums, also cut blooms of large-flowered Chrysanthemuma, exhibited by Mr. H. J. Jones, Ryecroft Nursery, Lewisham, was vary

Messrs. Wm. Cutbuse \& Sons, Highgate Nurseries, hondon, N., showed a large number of blooms of a single Dahlia, named Watford $\mathbf{B}$-auty, orange-coloured, with scarlet ring round the diss. Also fruits of their Polegate Seedling Tomato, and fruits of Cutbush's Green-flesh Melon.
Messrs. Jno. Laing \& Sons, Forest Hill, London, N.E., be sides a few orchard trees in pots, exhibited a very tastefully put ap group of Caladiums, Begonias, Dracæuas, Ferns, \&c The Begonias were of the ornamental foliage section, and ia c uded a few very attractive varieties. Caladiums and Crotons also were well-grown and of good colour.
Messra. WM Paul \& Son, Waltham Cro: Nurseries. Herts who seem to induce their Roses to flower long afier bloom have disapjeared from nooit gi-dena, exhibited a collection of cut blooms from varie ties specially good for late blooming. fow fruit trees in pots carrying fruits from these nurser kewise deserce remark
Messrs. J. Cifesf \& Sons Lowfield Nursery, Crawley, ix hubited stands of Dahlias of a variety of typea-Pompous, Cactus, decsiutive, show, faney, and single-flowered,
Messr3. J. Veltur \& Sows, Chelsea, showed Magnolia 100 , 1 and B. Hakodate, a new wapanese species, for comparison. The berries of the latter of a brighter hue, being scarlet instead of crimson.
A large collection of harly flowers was shown by Mr. Lad Hams, the Shirley Nusseries, Southamptoo, which included buaches of th-ir Perpetual link, very fresh and nice for so late a date; hhus glabra laciniata, which dies off of ri.h colours, \&c.
Mesers. W. Wood \& Eox. Wool Green, N., showel a collection of horticultural sundries of the usual heterogeneans

## The Conferences.

At the Conference on Thursday Edmund J. Baillie, F.L.S. of Chester, presided.

## New Freits of Recent Introduction.

Mr. Buntard read an exhaustive paper ou new fruits of recent introduction. He found some difficulty, he said, in defining the word "new," but he adopted the term for convenience, and he added that his remarks would be based upon his own persoual experience, and not on hearsay.

## Arples.

Dealing first with Apples, he said many fine fruits had come to the front. In dessert sorts they had the Beauty of Bath, an August fruit of great beauty. It was rather acil, and would, he thonght, prove more of a market fruit than a garden variety; Next came the Sepitember Beauty, one of Laxton's seedlings. This had a very rich flavour and soft texture, and was worth culture, althongh not a great bearer till it gained age. No early dessert fruit of late years laad taken the public taste like Larly Sudeley, as for perfume, colour, Havour and beauty, it took precedence of all the August and September kinds. The Armorel was a little russety well-flavoured Apple; it bore freely and would be valuable where very
late fruit (May) was required. The Christman Pearmain, to be sent out by his firm, was a soft.
fleshed, briskly flavoured Pearmain. good grower, and a regular bearer. The fibe dessert Apple, South Lincolu Pippin, had been purchased by his tirm, and it would be sent out in 1896. This would succeed where Cor's that old and fine variety. The Okera pretty rosy salmon fruit, in perfection in Sep. tember and October. It was elegant on the table, and of fine, brisk quality, and of a curious egg shape. It was a good grower and fair bearer. It required to be laid up to ripen, as the flesh man hard when eaten fresh from the tree. The Myy Queeu, although certiticatel many years sinee, wis now little known. It was a capital late deseert kind for February and Mareh, and a great bearer. The Wealthy was an American variety, with oof flesh and pleasing flavour. Its fruit was of a lorely crimson, and was in perfection aud profusion in
October. Williams' Eavourite was an Augus froit of great merit. It was a good grower and protuse bearer, and coull be highly recommended. These appeared to cover the new dessert novelties, but many older aud little known varieties should be noticed to complete the group; such as Roundmay Maguom Bonum, the finest flavoured dessert apple, Calville Rouge Précoce of great beauty with aromatic flavour and a good bearer, Allen's Ever. lasting, an old kind, little known, but of the finest possible quality, the tree being a close grower and free bearer.
In Culinary Apples there were more novelities such as Early Rivers, a fine variety bearing well at Sawbridgeworth. It might be described as a late Suffield. Hambling's Seedling was a large fruit that would prove a graud late variety. It was of vigorous growth, and for garden and orchard planting would prove an addition, as large culinary fruit was scarce in March. The Byford Wonder was a late heavy kind which had been sent out, and well shown by the Hereford nurserymen. Apples of this class would always be nseful atter Christmas. Saltmarsh's Chelmsford Wonder should prove a useful late cooking sort. Vicar of Beighton was a handsome fruit fancied by their old friend the late Shirley Hibberd; but it must be coudemued, as it cast its fruit prematurely, and the tr ce was, moreovel, very liable to canker, and wa in cawkwarl grower. Pearson's Newton Wonder wh vigorous orchard tree, and restricted on the Paradise Stock was a very free bearer. He anticipated that it, with Branley's Seedling, would bash the tender and much be-cankered Wellington ont of our orcharils. It was a really graad neel variety. For that graud late variety-Belle Pontoise, which kept into May, they were iodededed to Saw bridgeworth. Mrs. Barrou was distinct in growth to any other, aud would prove mond valuable for cultivation in restricted gariens
Tyler's Kernel was little known, but it formed s vigorons orcharit tree, and would probably prodee twenty-five bushels. White 'Transparent was very lovely and useful first-early kitchen
Its primrose colour aud capital cooking quabities ande it worthy of the Award of Merit which it tained. The new sorts, Duke of York and Bow hill Pippin, to be seut ont by his firm, would take a good place by-and-by.

## Cherries

Coming next to Cherries the writer said that in this department new kinds were not plentiful, bul the honour of introducing some good sorts with Messrs. 'T. Rivers and Sous, whose Bigarreatl, Francis, Cleveland Bigarrean, Ludwig's Bige; and must rank $A 1$ among the White Heart the black Black Hawk, Géant d'Hedelfingen among the blalso oues, Windsor, an American red-black, Cherties ikely to prove uscful. Among early band althong Rivers' Early quite took the lead,

## Nectarines.

Nothing Messrs. T. Rivers \& Sons had iatto up to their group of Nectarines, and they had ow crowned a glorious set by introduly a gool Early. This fine kind was not earlier tha grower but was seven to eight days was and the flarour exquisite. Among. recent ductious the late kinds, Newton and spus size, food for the gods, and their enormous them out colour, and exquisite flavour marked very
jointed, pointing to heavy crops and good coustitu tion. The Dryden was also one of the tinest for mid-season

## Peaches

Messrs. T. Rivers again took the lead, and their introductions had dowe much to lengthen the season in the kinds for culture under glass. The Americans had given his tine early leaches, but they were not much known yet, and cond only be valued for their precocity. An early Peach of a tirst-class tlavour was still required. Général Láe, Early C'anada, Harper's Early, from America, were not so good as Hale's Early. The Alexander, Waterloo, Amsilen June, were very early; but unless under grod conditions did not possess rich Havour, though they were juicy and pleasant, and came three weeks betore any others. A word as to failures with these sorts under glass. There was no difficulty in setting these American kints if a low temperature wer hept until the fruit was set, when the day and night heat could be raised, and they soou swelled and astouished every oue by their quickness in ripen ing, but the continuance of forcing heat during Howering was a wroug process, and caused them to cast their fruit. Outside, this did not necur, and they were valuable additions to carly fruits in this section. The best way to get them of really good Havour was to set them in an orchard house, to grow them on till within a fortnight of ripening, and theu to stand the trees ontside for the fimishing touch, when they took ou fine colvur, and became really good in flavour, though not first class. In late Peaches there wert no novelties to chronicle, but the mid-seasou kinds were well supplemented by Dymond and Goshawk, which, though not new, were yet little known, and had the benefit of a good constitution.

## Plums.

Iu Plums Messrs. T. Rivers again took first place with early sorts. Stint was a gain for an early dessert kind, and the Sawbridgeworth race of trans parent (iages received substantial amitions in the Early Transparent and Late Transpareut, and the late Golden Transparent again was fiue and very late. All these possessed the best and richest Havour for dessert. To the same firm was due the Count Atthem's Gage, one of the red-skinned sorts, of exquisite flavour, and a good bearer and grower.
In dessert Plums none had proved of so much l,enefit as Rivers' Monarch, a large black Plum, ripening at the end of September, and being a noud yrower and profuse bearer.
In IJamsons, Bradley's Kiog took the first place It was of the richest flaromr, and now that the trees lad gained age it bore aunually. It was uo equalled for private use.

## Peaks.

Deacou was a profuse bearer on Quince, but a slow grower. It did admirably on the Pear. The fruit was sweet and pleasant, but must not be left on the tree till fully ripe (August to S'eptember). Margucrite Narrillat was an immense fruit with fine colour and when eaten in condition was excellent (September to October). Messrs. Veitch's Beurré Fondueray was a fine green Pear, which would replace 1B. Bachélier. It was a free-bearer and hardy (October). Directeur Hardy was a good grower, aul ranked Al. Rivers' Conference was an clegantly shaped fruit aud a great hearer, and when not over-ripe of fine thavour and buttery. It was a good grower (October). The striped I oyenum llu Comice had yet to be provel. The Bumed din Buisson was a remarkably fine-flavoured, long lear', fuicy and delicious. It grows slowly but bears well, and was quite Al. (December to January). Le Jectier was a large Pear of uneven shape, but of tine quality, keeping till Javuary; while of older iutroductions Rivers' Magnate ani Princess maintained their characters.

Late lears are very much neglected, and in passing it might be said that Beurré de Jonghe, Ioyenvé d'Alençon, Marie Benoist, Duchesse de Bordeanx, are very fine and reliable sorts, which succeeded in the South and West as open pyramids, and in the colder parts of the country should do well on walls. Beurré Julie was a small but firstclass pear, and deserved to be better known. It was a profuse bearer and was in season in October to November. The Fondante de Thirriott was liandsome and very good, and a good grower of moderate size (December). The list of baking Pears had been extended by the introduction, through the Pear Conference, of Gilogil and Directenr Alphand,
and as the public taste grew for stewed Pears, they would be appreciated.
In Quinces new sorts were plentiful from America, but at present the results had to be waited for.

## Ranpberries any Strawberrien.

In Raspberries, Superlative Red justly held the first place. He could not speak well of Keighley Queen, lately introduced. Surpassé Fastolf from the continent was a good red. In yellow Raspberries they liad stood still, but a very large fruited one might be expected in 1896 from his firm.
Instrawberkits they had made a greatadvance, and it was to be regretted that Mr. Thomas Laxton did not remain with them to see the success of his loyal sovereign. Taking the earliest kinds, the carliest is Laxton's No. 1, a fine-Havoured variety. laxton's King of Narlies is yet one of the best for lavour. It is closely followed by Royal Sovereigu and sensation (a fine fruit but soft). George Rundle aud May Queen have not yet been so good as to warrant their adoption. Incomparable Ridewell, which gained the award of merit, is an impoved Goliath of firmer texture, and there are a few Contineutal sorts, mostly introduced by Mr. (ieorge Paul, which are useful fruits, such as Auguste Hoisselat, Edward Lefort, La France, Souvenir de Kieff, and Unser Fritz. These were not new, but are valuable in a collection. In late sorts Laxton's Latest of All (unfortunately named, as it was not a very late kind), is the best of recent sorts. Its fine size, Queen style, and splendid flavour singled it out for general cultivation. He must not overlook the new ones from Gunton Park, and Mr. Allan deserved credit for introducing Empress of India, (iunton Park, and Lord Suffield, as they were a departure in the direction of more distinct flavour, as against many recent sorts which went for size only. He woull like to give a word of caution. Many growers in trying new varieties did not give them time to show their qualities in varions seasons. Sitrawberries for all seasous must be cultivated, and he would ask growers to hesitate before condemning new or fresh varicties on trial, as it did happen that those which proved valuable in a dry were worthless in a wet season; and, as good garden
they should provide for all changes of weather.

## Grapes.

In Vines (Grapes), from time to time, really fine novelties were got, but the public taste took years before they became popular. He had however great faith in Lady Hutt, a large bunched white of graud flavour, and Diamant Traube, very five; and in Black Grapes, Appley Towers, which might be described as a late Hambro'. Grapes would soon lave to be divided into two sections-handsome sorts for the market; and choice sorts, with flavour, for one's own eatiug.

## Miscellaneols

Among outside fruits the Japan Wine-lerry deserved notice. It was a useful fruit for tarts, \&c., and as a handsome climber or trailer, its pretty, weeping habit and red stems marked out a future for it .
The American Blackberries had been a failure. It wonld, Mr. Bunyard said in conclusion, be necessary to carry out a rigid selection in order to admit of the introduction of so many new fruits.
The Cimambas said they had listenced to a most interesting laper which opened up gromnd for gond disclassion. He noticed that Mr. Bunyard did not allude to a variety of
itrawbery which surpassed the Royal Sovereign, he referrei o Laxton's Monarch

## Mr. Branard said he Lad mot Mr. Roupell remarked that

Mr. Playrord (South Austrabia) said he was a grower from the other side of the world -the celony of South Australia. (Cheers.) As colonists they had been exceedingly anmions to) get the best varieties to grow in the open. Ire sent to Mr : Bunyard, who forwarded several varieties, which, although they travelled 16,000 miles, all turned cut well. He would like to say that he thought that in growing for profit it was a great deal better to confine themaselves to the very best varicties, and only afew of them. there was one Plum he thought might be introduced into this country, the Jap anese Plum. It was very much like an ordinary Peach-a crnss between a Peach and an Apricot, There was one Plum called Red Heart, a most excellent fruit. He was astonished Mr. Bunyard did not mention the Bismarck Applo. It had been grown for some years in the Colony, and he had a specimen whioh measured 16 inches round in one direction and 16 inches in the other direction. He thought that would beat anything slown at the Palace that day. He, however, devoted himself principally to the cultivation of Cherries. The firgt Cherries he got were the Early Purple King. It was the very earliest variety and made a splendid show, as did

Eirly Lyons. He also grew Tinford Bigarreau, which, gathered before it was ripe, would not luse its flavour after it Was picked; the Black Tartarian, Kuight's Black. Waterloo, which wall keep well in extreme cold, st. Margacrite, a very latge, tirm, hack (hems, were , ther varieties that he cults atol. He lat phemed mamethan like in tons of (herrich
 W.: allougrowing a 13 a hberry that came from the Himalayas and some of these had been sent to kew Gardens.
Mr. Crump, replying to a remark nade by Mr. Rivers, who was not distinctly heard, said he had had nothing to do with the raising of the May Quasen. Ho had, however, got a model tree, and the variety was one which should bo grown y everyone.
Mr. Rolped adid he was very much struck by the remarks of the gentleman from South Australia. He, however, munt diseent from some of his opinions. He was afraid if they selected only a few Apples and a fow Pears, and so on, they would rematn stationary. If thefrefforts were confinet ans ramped entircly $h_{\text {s }}$ the mercantlo clement, theg would
 of horticulture, somach the hutter. Ho had himself a crop (ff Diamant Trambe, and he wiss glad to find that Mr. Bun yard had learnt its merits. He would not like to leave the Nanny, an excellent ciussex Apple, ont of a selection of fifty The list of first-class Apples was, however, so large, that i wis a matter of great difficulty to reduce the number to any thing like fifty; and their friend from Australia would do wisely to try all the sorts sent out to him, and not to stick to the duzen he had got. If he did not do so, he would find limself left out in the eold.
Mr. Bunyard, in replying on the discussion, said he would not advise anyone to embark on the Plums from Japan. He had got all the varieties he coulci, and he had only had tai wear fruit, offer twelve years. He womld have mentioned the Bismarck Aphe, lut lie thonght it was thoronghy well known. The same remark inplied to the American Notber Apple. With regard to the Nanny, there was on objection-it very seldom cropped.

A hearty vote of taanks was proposed by the Chairman Mr. Bunyard for his paper.
Mr. Ghant, in seconding the proposition, aaid, up till recently lie had beon associated with Roses, but for the las fire years he had gono in for fruit, and he was satisfied with the results obtwined. He did not think they need fear the ampetition of their Australian or Americau consins, who

## guing to (Lamghter).

## Second Day's Conference.

The second day's conference took place on Friday, under the presideney of ' Mr. Bunyard, when Mr. A. H. Prarson read a most interesting paper on

## Pruning Fruit Trebs,

Mr. Pearson said he approached the task of reading a paper on that subject with trepidationthe subject was one upon which so much had been said; and yet he found from experience that there was still a great deal of darkness in the mind of the average amateur on the matter, and even the great lights of horticulture differed very materially on some important points. Let them take for instauce the very first question which arose in the mind of the ordinary amateur. He purchased some fruit trees from a nurseryman, and his first question was should the trees be prumed at the time of planting : Nine authorities out of the ten would a few year: ayo have replied, No! It was not so long ago that a little band withstood a host of experts upou this very question, and he was glad to say withstood them with such obstinacy that, although the question was not settled, it was left an open one 'The advocates of uon-pruning assert that the traus planting of fruit trees being a considerable check to the trees, this result should be counteracted by leaving the branches full length for the first year so that they might produce as much foliage as possible and thus induce root-action; whilst those who advocated the proning of newly-transplanted trees took an eutirely different view of the matter, and argued that, as the act of transplanting entasied bility ome reduction of their length, the branches should also be shortened to maintain the balance; further that the long shoots being left on the tree caused a considerable amount of needless evaporation of the stored-up sap, made it much more difficult to secure the tree from being rocked about by the wind, and lastly that it defeated the end in view, inasmuch as development of leaves from the full-length shoots was so poor compared with that on the shortened shoots, that root action was retarded rather than advanced. These ideas had been gaining ground during the past few years. Of course, the results upou experimental plots, and
the results which came under the observation of every intelligent nurseryman, from the planting of trees under his own supervision, were results which were measured by the eye, and which might to some extent be read differently; but happily there was established in this country, thanks to the enter prise of His Grace the Duke of Bedford, an experi miental fruit-station, where results would be accurately recorded by men of science, so that pre judices, one way or the other, would not be allowed to hias the judgment of results.

The manner of pruning a newly planted tree must depend greatly upon the tree to be operated pipon. Broadly speaking all young, well-growu and vigorous trees should have their branches shortened one-third of their original length after planting; if the planting was done crry early in the season the pruning might with advantage be deferred for a week were left being dried up, but in the case of trees planted later in the season the pruning might be done at once. What were the objects to be attained by prining fruit trees? Firstly, to obtain fruit; and, secondly, to form trees of a nice shape and in a condition to continue fruit-bearing. With many planters, the first object seemed to be lost sight of, whilst others equally neglected the second. Pruning required a good deal of judgment, and much depended upon the kind of tree, the stock upon which it grew, and the form of tree which one desired to have as a result of one's cultivation. It was therefore impossible to lay down any hard and fast rules for pruning-each case must be taken upon its merits. There were, nevertheless, two rnles that could always be kept in view, and which formed the basis of nearly all pruning: first, that all branches must be so disposed as to admit the sunlight and air into the middle of the tree-for, without this, fertility was inpossible; and, second, that all leading shoots should be as strong as possible, in order that a free flow of sap be maintained, and the side shoots should be as weak as possible in order to favour the formation of fruit spurs. A good axiom would be-the more a branch is shortened by pruning, the stronger will be the growth reaulting from the remaining buds. After all, one's judgment was quite as useful in pruning as the knife. To begin with a few examples, let them suppose that they had purchased some standard trees of Apple, Pears or Plums which had been well grown. If the trees were young, say three or four years old, the shoots should be cut back to one-third of their length, taking care to prune to an outside bud, so as to produce a tree with an open head. The reason for this was that the first care, with standard trees, must be for a few years to secure good growth and form firm open heals which would carry fruit for generations-and those who sought to obtain fruit at once made a fatal error. If young standard trees were left unpruned they would make scarcely any growth the following season, but the bads would just push out a few leaves and remaining nearly dormant, would, the following year, be transformed into hloom buds, and if these produced fruit the long brauches would be broken down and the tree ruined for life: if, on the other hand, one wished to prune them back the first year after planting, a whole season would be lost, and it was often very difticult to find buds to prune to, as the buds on the lower portion of these long branches would have failed to develop, and were what were technically called "blind.
Pyramid treen should be treated much in the same way an standards; young vigorous trees ahould be clasely pruned; older trees, being more formed, did not require such severe pruning, as the foundation of the tree was already laid, and what one wanted was rather to continue the work already begun, than to cut hard back and so form strong shoots; older transplanted trees merely required the longest shoots shortening, in order to maintain the balance of the tree, and to prevent their lower portions having undeveloped buds. It was frequently advisable to thin out entirely a few of the branches upon formed or specimen trees, where they were placed too closely together, as this was an operation which seldom received atteution. These remarks npon pyramid trees were of course based on the mupposition that they had been carefully pruned of pyramid trees being purchased and planted which had stems three purchased and planted able. Such trees could remark were not applic. able. Such trees could only be treated by being cut hard back to 15 or 18 inches from the anface of the
was possessed of sufficient patience to await the wesult, the alternative being to dig them up and burn them.

Cordon Trees. - These should have the leading branch left as long as possible, the only object of shortening it at all, if well ripened, being to ensure the whole of the buds breaking. Now as they wanted the buds to form ruit spurs, that they should be as weak as possible, and away, the stronger would the growth be from the remain. ing buds, let them err rather on the side of cutting away too little than too much.

Empalier Trained Trees. - These should have the leading shoot pruned back to about 14 inches from the top pair of branches ; provided, of course, proper buds could be found there to make growth to form was, be it an inch or so higher or lower. The side branches which were about 1 foot apart, should be treated just in the same way as cordons. He wished to make it clear that the pruning of a cordon or espalier tree should be the exact opposite of that recommended for a standard tree, for the simple reason that in the case of a standard tree, the result which one wished to obtain was growth, whilst for the already formed trained tree one wanted short fruit-spurs.

Semmer Pruininu. - This, as ordinarily carried out, was the main cause of our garden fruit-trees being unfruitful ; whereas, if properly done, it should cordons and side-shoots from the branches of espalier or other trained trees, or pyramids, should be gone over during the season of early growth (May), and pinched back with the finger and thumb-nail to three leaves. These shoots would then commence to grow again from the upper buds, and should be pinched back to two leaves (making five). Some times a third pinching was necessary in a wet autuma. The result of this treatment would be that the side-shoots would be thin and weak, and so predisposed to form fruit-spurs, whilst the leading shoots and those required for extension would have had an extra amount of sap thrown into them, and would consequently be strong, clean, and vigorous. In the subsequient autumu or winter pruning of these side-shoots leave always on young and vigor ous trees three buds; on old trees, two would sutfice. The reason for leaving three burls was, that one or two--generally two-must make growth, whilst they wanted the lowest one to remain nearly dormant, and just put out a leaf or two, so as to develop into a fruit-bud next year. The mode of summer pruning often seen practised was very different to that here described. It consisted iu allowing the side-shoots to grow freely until July, and then cutting them hard back to two buds. The result was, that the shoots were far thicker and stronger than they should be, and consequently more liable to make strong wood next season. The tree received a great check from the removal of so much foliage, and tinally, the buds left were almost certain to break ont into growth the same season. Close pruning like this quickly transformed a tree iuto a dense thicket of shoots impervious to sun or air, and totally unfitted for bearing fruit. Close pruning was responsible for more failures in garden fruit culture than all other causes put to gether, and he blamed the methol of close summer pruaing, because the trees were thus subjected to two close prunings a year instead of one, and thus hecame thickets in about half the time. The reduction of apurs, necessary as it was, must be deferred until the bloom-buds are formed. As soon as one had a really developed bloom-bud on the spur, any growth extending beyond it might and should be removed, so as to give the tree a neat appearance, prevent the overcrowding of follage, and have the fruit as close to the main feeding supply as possible.
Stone Fruits. - He would like to say that all stone fruits hated the knife, and the more pinching one could do to save subsequent pruning the better would the tree like it, and the less would they be troubled by gumming and other evils.
Root-Pruning. - In the present condition of knowledge - and many things had to be learned-he looked upon root-pruning more in the light of a surgical operation to be undertaken advisedly than as one of the routine operations of the fruit garden. Care should be exercised, or the cure was apt to be worse than the disease. In the case of young trees there was of course no difficulty in the matter; but with old trees, when the roots had extended to a considerable distance, there was a great danger of killing the tree. Tbe modus opercudi of root. pruning was this: as early as possible in the season,
as soon as the leaves turned yellow, and before they fell off, get out a trench round the tree to be ope rated upon, cut back the strong roots (with an upward cut of the knife) and drive a spade under the ball of soil in which the tree stood, so as to sever any tap-roots which might be working down: into the subsoil, fill up the trench again as quick $l_{y}$ as possible with some good loam and old manure from a spent hotbed, and the shortened roots would make plenty of young fibres before the advent of winter. When really old trees had to be dealt with, it was best to prune only half way ronnd the tree one season, and to complete the circle next

Mr. Pearson, whose paper was listened to with deep interest, explained many of the points by means of specime

Mr. Arnold said he had paid a deal of attention to the paper, particularly with regard to the pruning of contions. go round the trees, say in June. Instead of cutting amans the lateral growtha, he bruke them and left them banging, and he found that when they wanted to cut back finally to tho third bud, it answered to break the branch at the fourth wed as they would find that the first bud beyond the break would develop into an unmistakeable fruit bud.
Mr. Colvile Browne (Hextable) said he should like to corroborate the remarks of the last speaker. As one who had a good deal to do with fruit-pruning, he found the quite sure whether it would answer in large establishments by breaking off the breast shoots and the superfuons shoots. It was noticeable that below the break or below It was very curions, and he get an unmistakeable fruit bud to bear it in mind with respect to rank growers like the Pitmaston Duchess. If they had some good system of bending or twisting with rapid growers, they would obtain rery mach better results in the long run and have less work for the knife. He found there was more harm done by the pruning knife than from any other cause. Magnificent trees were sent out from the nurseries and spoilt in four or five years. He thought, however, nurserymen were grestly to blame, because thes did not give all the information they ought to. They had to thauk Mr. Pears much valuable information that das
Mr. Fletcher (gardener to Mr. Tbompson of Maidenhead)
testimony to the value of the paper, and waid those who ight and guidance. He was very pleased to hear $\mathbf{y}$. Pe.zrson speak abour newly-planted trees, and he thought it might be taken for granted that as a mule newly-planted trees should be pruned. He knew there had been a con. roversy on the subject, but he was not certain which side won. They should be guided by common sense a greas dealh and by circumstances.

## individual judgment.

Mr. Rivers said he could fully bear out uh it had been said about twisting the branches. Constant piuching was nots success, and with cordon trees one pinching was enous it and it shonld be done in June. He was once in a garden Rouen, belonging to a professor. The trees were beautifuly arranged, but there was hardly a fruit $n$ theni asked the gardener whether tbere whs any frut in foot orchard, and the gardener said there was. They had not they any fruit on the cordons because, added the gardener, Whith were pruned on the professor's syatem (laughter. neco regard to root pr
A gentleman asked whetber it might not be worth while get over the difficulty by preparing the trees before thans planting, in the same way as they ought to do with Raw erry canes.
Mr. Bomyard anill he would strongly advine that pruning bould not be done the firat year. As to pruning trees bolore they were sent out from the mursery, speaking as one glad had to do a vast amount of packing, he would be very to do the pruning, as nurserymen were but mortad for 3 tradesmen. But people would not like to pay to nmill for well-pruned tree, because thes would think it too that these the money. It should, howevar, be remembere they wio trees were entrusted to rallway companies. handled by inexperienced persons, and sometimes unad and serionsly. If the trees were sent out properly p fato prop Were then
Mr. Pearson said he hoped he had made it quite clear thas lose pruning was the thing he was fighting aggingt. Roply ing to questions, he said that at present we had stock for Plums. With regard to the betheir old friond branches, one method was that adopted by their to the end Shirley Hibberd, who used to tie bricks and stalogue, his or of them. As to giving information in a catalogu erience was that the reader would talse no What wan aald, as he would be aure nurseryman had his own axe to grind.
pyrauids, there are a number of them whit and there are a number thanches. Cherries did not like the knife. As regards standerd trees-Applen, Pum and Plums-he believed most strongly in pruning thom the time of planting.
(To be continued.)

## ONIONS AT BANBURY.

Stptbmer 19.-The annal Onion Show, eatabliahed by the late Mr. Henry Deverill a few yeara ago, took place as usual in the Seed Establishment, Cornhill, Banbary, on the above date, the whole of the shop and one of the warehouses being filled with exhibits. Despite what many regard as an untoward seanon, Onions have tnished in fine condition, as was evidenced by the oplendid asmples exhibited on thi occasion, there being a very keen competition in everal of the classea.
The Champion prize for the six largett and handeoment specimens of any one of Deverill's Pedigree Onions, was won specmens any one of Deverill's Pedigree Onions, was won Bssingatoke, who had sir of Allas Craigo weighiog $17 \frac{1}{f} \mathrm{~b}$., all very finely finiehed, hadiome, plump, and wolid. The largost of the six weighed 3 lb .1 oz , and when lifted from the open Rround, $3 \mathrm{lb}, 6 \mathrm{oz}$.
The next class was for twelve specimens of either one of the following varieties-Aile Craig. Adranoer, Coooe Nut, and the origianl Excelsior. There were several computitora, and all four prizes went to Ailsa Craig, which is the largest Union in caltivation: Mr. Bowerman again taking the lst prize with twelve, weighing $30 \$ \mathrm{lb}$ 。; Mr. Nicholls, the Gardens, Nuneham Park, Ogford, winning 2nd, with 26 it lb .; Mens. No
 Kymlese, the Gardens, Malshanger Park, Baeingstoke, 3 rd,
with $23 \ddagger$ lb. With twelve specimens of the flat type, viz. with 234 lb . With twelve specimens of the flat type, viz.,
Rousham Park Hero, Anglo Spanisb, The Lord Keeper, or Royal Rousham Park Hero, Anglo Spanisb, The Lord Keeper, or Royal
Jubiloe, Mr. W. Kmecler came in lst with twelve very finelyJubiloo, Mr. N. KMELLer came in lst with twolve very finely-
finished examplos of Anglo-Spanish, weighing 21 l lb.; Mr. R. Linisbed examplos of Anglo-Spanish, weigbing 21, 1b, MM. R. 2nd ; and MP. C. J. WAITE, the Gardens, Glenhuret, Esher, the 3rd, both showing Anglo-Spanieh, in each case the dozen bulbs weighed $19 \mathrm{lb} .$, Mr. LyE's wore better finished.
With twalve examples of the Improved Wroxton, said to be one of the best keeping Onions in cultivation, Mr. R. LyF came 1st with 12 lb . weight, all true to type: Mr. Haines, The Gardens, Coleahill, Shrivenham, was 2nd, with 11 lb .
In the clase for twenty Onions of any variety, offered by Hemry Deverill, Mr. Knellers. Baingutoke, was 1 st with Ailsa Craig. woighing 33 lb .; and two other prizes were warded to this variety.
The next clam was for $t$ welve Onions of any variety, grown in Sootland and the Northern Counties; Mr. C. J. Fisier, York, came let with eapital bulbs of Royal Jubilee: Mr Milleen, Stockton-on-Tees, 2ad, with Anglo-Spanish; and Mr. G. Coles, Lancaster 3rd, with Royal Jubilee.

Valuable prizes were also offered for eight dishes of vegetables in the main varieties distributed by Mro Hemey Devicause; the let whe won by Mr. R. Lere with a supert colloction; Mr. C. J. Waite being a close 2nd. There was alto an excellent competition in the clases for eight diebles of vegetables, shown by cottagers and ellotment holdere, and a vegetaber of capital collections mere staged.
This exhibition is cery were staged.
This exhibition is rery popular in Banbury, the town haring long been famous for its Onions; and free admiesion is permitted to anyone desirous of witnessing it

## GRAND YORKSHIRE GALA

Septimber 24.-A meeting of the guarantore and life members in connection with the Grand Yorkthire Gala was held on the above date, at "Harker's Hote)." Alderman Sir Joseph Terry, J.P. presided. The b slance sheet sabmittod showed a profit of $21137 \mathrm{7s}$ ad. on the year, compared with $£ 3483 \mathrm{~s}$. 4 d., on the gala of 189. It wis recommendell that grants amounting to R300 shon'd be made. and they were apportioned as follows:- County Hospital, ${ }^{250}$; Dispensery, 230 ; Blue and Grey Coat Schooln, 840: Boys' Industrial school, e10; Girls' Industrial School, s10; Bootham Asylum, Na1; Home for Friendiess Girle, \&10: Home for Nurses, \&15: Blind School, 2558, . Soldiers untitute, 25: Penitentiary, E10; Yorkhire Society's Echool, 2.6 bs .; St. 8tephen's Orphanage, 210 ; Charity Organisation, E10; Association for the Care of Young Girle, $810 ;$ Hungate Misoion, $\mathbf{e s}^{5}$; Bisters of gt. Vincent de Paul (Crèche), R.5. Gratuities. \&7 los. It was decided to invest 2103 of the ezar at present in the bank, and suggestion was made that the remainder, or a part of it, might be devoted to the improveremainder, or a part
ment of the fisture?

## Obituaty.

Peter Grieve.-By the audden death of Mr. Puter Grieve on the early morning of September 26, 1895, the borough of Bary St. Ejmanda has loat a arefal citizen, and horticalturiste a warm-hearted comrade and a distinguished practitioner. Though afforing for mome years from heart divease, the deceased, with his nual pluck and perseverance, has atcended to his customary daties as a member of the Barial Buard, a regular attendant at the readingroom, \&c. One of his last act was the sending of a tentimonial to Mr. Barron, the receipt for which was his first letter received after his death this morniog. Knowing him ao well as I have done for nearly fifty years, I believe be would bardly have had this other-
wise. Mr. Grieve was 83 , and will be baried with his only daughter, Lucy Grieve (ber Pear iu fraiting well this year, close to her dead father in Bary), at Culford, close to his life-work. Mrs. Grieve, who is well known and gratefully remembered by 20 many gardeners for her hospitality, survives her husband, and will have the warm sympathy of many reader of this notice. The funeral took place in the churchyard at Calford on Tuenday, October 1.

I should like to any emething-much, in fact-of the worth and worl of my friend of nearly filty years; but his loss is too recent, and too great. Located near him, asnociated with him in every ponsible way in horticultaral mattor for so long a period, his audden removal leaves a vacant place which is hardly likely to be filled. I loved him at a friend, a companion, a neighbour; a brother of the pen, the knife, and apade; and never found him wanting in any good work, or kind word or deed. As to hil great doinge as a caltivator in all depart-mente-are they not to be read in all the back records of Culford Gardens for years, and in many a back number of the Gardeners' Ckronicle? His solid soundoem at a juror; his practical experience as a

writer, are also well known. Hi work among double Petanias and Pelargoniams was also duly chronicled as it appeared; and the art of raising Tricolora by the father of most or all of them, may, I believe, atill bs had.

Neither has the change of fashion in furnishing flower-beds detracted from the value of Mr. Grieve' work in hybridisation or crove - breeding Polargoniams or other plants; his akill and perweverance were marvellous, and so were the products; the tricolors, bicolore, and brogzes had a brillisat reign for jeara; and it is quite ponsible that for various purposes they may have a renaisanc. Be that as it may, Mr. Grieve did good work at Culford and other places as a landacape gardener, as well at a oultivator and crom-breeder. The grand Yew hedges inclosing the vegetable quarters in the princely kitchen gardens are of his planting, and will prove, perhaps, his most enduring monument Hi flower-garden within the centre of the kitchengarden, and in other directions; his raised bede of beanty on the vine-borders, were for yeart pictares of exquisite colouring and finiahing. And now he rest under the shadow of the old fame and the old
beauty; and may hir reat and his rising be alike blessed is the heart-felt wish of all his comrades who knew him best, and loved him mont! D. T. Fish.
[Oar portrait is of Mr. Grieve in middle li'e, and originally appeared in our columns on August 28 1875, in illuatration of a detailed account of his career. Mr. Grieve was one of our most valued correspondents, and we highly appreciated his jadgment when, some years aince, we had occaaion to seek his advice. Bat it is as a hybridist that he will in the future be known. Those who knew him beat will be called in their turn, bat Grieve's work in advancing horticulture will remnin a valued heritage to posterity.]

Charles V. Riley.-It is with great concorn that we extract the following paragraph relating to thie diatinguished entomologist from the colamne of Garden and Forest, no other communication having up to the present reached us. Chables V. Riley, the well-known entomologiat, died in Washington on Saturday night from injariea received in a fall from a bicycle. He was born in London in 1843, came to this country at the age of seventeen years, and settled on a farm in Illinois. He served as a coldier in the last years of the war, and after come experience in journalism, he was made State Entomologiat of Mistouri, which position be filled for nearly ten years. His work in that State attracted mach attention, avd in 1878 he came to Waahington, where, until last year, when he reaigned his position, he bes practically supervised all the entomological work carried on by the Government. Mr. Riley was a tirelest worker, with an aptitude for original research, and many of his published papert are of permanent value. He had a talent, too, for political management, and for many years he war recognised in the Department of Agriculture as one of the fosces in directing it policy and selecting its agents.

## Plant Notes.

## CONVOLVULUS MACROSTEGIUS.

I meceived aeede of the above-named plant from California at the commencement of this year, and was informed by the sonder that, like the Solanum ranti, it was indigenous to the Itland of Santa Croz, and that it had yellow flowers, and was now in all probability sent to Earope for the firat time. I distributed seeds to several friends, and nowed some myself, of which four germinated, and were in May planted out in my garden, where they have growa mont vigorously, ending out long trailing thoots from 2 to 3 feet in length, but have not bloomed. I fear the winter frosts will kill it even here, and should be glad of some information aboat it. W, E. Gumbleton.

Solanum xanti vab. Walrachi.
At the commencement of this sear I received from the Director of the South Californian Acclimatieation Society at Montecito, Santa Barbala, some seed of what he assured me was a most beariful new Solanam, under the above name, and which came from the Island of Santa Croz, and was now nent to Earope for the first time. He said that the flowers of this plant were of a beautiful shade of trae blue, and eweat-acented, wo that I thought I had got a treanure indeed. Nearly a dozen of the seeds came up, and keeping five for myself, I dietributed the othert amonget my friends, who are interasted in new plants. I planted my five planta in a bed in my garden in the month of May, where they grew and developed very rapidly, sending up first aningle stem to $a$ height of between 3 and 4 feet, and then branching freely from the axil of nearly every leaf all up the atem. About the middle of Jaly buachee of buds appeared on the points of all the topmost shoots, which opened towards the end of the montb, when, to my great diaspointment, the colour of the flowera tarned out to be not at all true blue, as they had beer described to me by the sender of the meeds, but of a parplish-lilac, with five little green and
white spots or marka round the centre of the flower one at the base of each petal．I could not perceive any trace of perfume，which was another dinappoint ment to me．I sent apecimens to the herbarinm at Kew for identification，which were pronounced to be merely the type form，S．xanti，Can it be that S．zanti var．Wallacei was a blue bybrid form，and that the meedling have reverted to one of the parents？I think this matt be the case．W．E Gumbleton．


The term＂acenmulated temperatare＂indicatee the aggre gate amount，as well as the duration，of degrees of named：and this combined result is expresesed in Day degrees－a＂Day－degree＂signifying $1^{\circ}$ continued for an inversely proportional number of hours．

| teupichatuke． |  |  |  |  | Radatilu． |  |  | $\begin{gathered} \text { BRIGH: } \\ \text { SUN. } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AOCUNOLATED． |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 咱 |
|  | $\begin{aligned} & \text { Deg- } \\ & \text { deg. } \end{aligned}$ | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | $\begin{aligned} & \text { Day- } \\ & \text { deg. } \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { 10tha } \\ \text { Inoh. } \end{array}$ |  | Ins |  |  |
| 0． $8+$ | 113 | 0 | ＋ 320 | ＋ 258 | 9 | 171 | 32.9 | 26 |  |
| $1 \cdot 1$ | 118 | 0 | ＋ 108 | ＋ 408 | 7 － | 137 | 20．8 | 53 |  |
| $29+$ | 131 | 0 | ＋ 268 | ＋ 272 | 6 | 134 | 19.8 | 8 67 |  |
| $37+$ | 134 | 0 | ＋ 182 | ＋ 282 | 6 － | 113 | 169 | 81 |  |
| $410+$ | 144 | 0 | ＋ 210 | $+367$ | 6 － | 110 | 16.2 | 83 |  |
| $\mathrm{s}^{10}+$ | 185 | 0 | ＋ | ＋ 332 | 7 | 105 | 14.7 | 83 |  |
| 6 8 + | 131 | 0 | ＋ 178 | ＋ 383 | 11 | 143 | 24－2 | 4 | 34 |
| $110+$ | 151 | 0 | ＋ 237 | ＋ 302 | 8 － | 124 | $20 \cdot 6$ | 58 | 37 |
| $8 \cdot 10+$ | 155 | 0 | ＋ 158 | ＋ 337 | 9 － | 112 | 20 | 72 | 45 |
| 9 ${ }^{\text {＋}}$ | 187 | 0 | ＋ 182 | ＋ 267 | 7 － | 155 | 23.2 | 49 | 32 |
| $7+$ | 130 | $\sigma$ | ＋ 38 | ＋ 194 | 7 － | 130 | 24 | 60 | 35 |
| $9+$ | 172 | 0 | ＋ 201 | ＋ 248 | 8 | 125 | 16 | 71 | 32 |

The districta indicated by number in the first columan are the following：－

0，scotland，N．Principal Wheat－producing Districts－ ，Scotland，E．；2，England，N．E．；3，England，E． 4，Midland Counties；5，England，including Londow， 8 ． Prancipal Grazing，©c．，Districts－8，Dcotland，W England，N．W．8，England，S．W．i 9．Ireland，

## THEPAST WEEK

Tiz following summary record of the weather throughout the British Lalands for the weet ending September 28，is formiahed from the Meteorological Office：－
＂The weather during this period was extremely fine，dry， and aummer－like generally．Thunder and lightning wer experienced，however，over Ireland on September 23，and over the more sonthere parts of Ingland on September 24 or 25 ， but the storms were accompaniod in moot casso by very little rail．

The temperature was unusually high for the time of year the excess above the mean being as much at $16^{\circ}$ over the greater part of Rngland，and between $7^{\circ}$ and $9^{\circ}$ eleewhere In the majority of districts，this week has been warmer than any experienced during the past summer．The height of the maxima were registered on September 24 at most of the English stations，but towards the end of the period in the rish and scotch districts．They were as high $9886^{\circ}$ in th Midland Counties＇and＇England， ， $85^{\circ}$ in the＇Ohen Islands．＇ $81^{\circ}$ in＇England，E．and $\mathrm{S} . \mathrm{W}$ ，＇and $82^{\circ}$ in＇England， NE，＇while over Ireland and Scotland the bighest readings E E，＇while over Ireland and Scotland the bighest readings
raged between $75^{\circ}$ and $79^{\circ}$ ．The lowest of the minima were raaged between $75^{\circ}$ and $79^{\circ}$ ．The lowest of the minima were

recorded either on September 22 or 23 ，when the thermometer | record to $32^{\circ}$ in the＇Midland Counties，＇ $34^{\circ}$ in＇Englavd，E．＇and |
| :--- |

 diotricts．The diurnal range of temperature during the first few days of the period was of temperature during the first stations；at Loughborough and 8tangly large at our inland the range wae $43^{\circ}$ during the twenty－four hours September 23, weak the minims were very high for the hours Later io the The rainfall was very slight，or altogeth year． the kingdom as a whole，but a rather considerable absent，orer at one ar two ceatral and eonthera Euglish otefll occurpad the thatidentormis of September 24．In glish otatione during amounts resulted from heary dewt or wet cases measurabl

The bright sunshine was still defioient in＇Scotland， at was extremely abundant in all other districts．The per－ entage of the possible amount of duration ranged from 83 in England， $\mathbf{S}$＇，and 81 in＇England，E．，＇and from between 58解 in the other English dietricts，to 49 in＇Ireland，N．＇ 45 in＇Sco＇land，$W$ ．＇and to 26 in＇Scotland，$N$＇

## MARKET8

## COVENT GARDEN，October 3

We cannot accept any reepponsibility for the eubjoined reports．They are furnished to us regularly every Tharsday，by the Kindness of several of the principal salesmen，it must be remembered responsible protations do not represent the prices on any particular day，but only the general averages for the week preceding the date of our report．The prices depend upon the quality of the samples，the aupply in the market，and the demand；and they may fluctuate，not only from day to day，but often several times in one day．
Out Flowers．－Ayrrage Wholrbale Prigra．

\section*{Arams，p． 12 blooms 30－6 0 Orchids： 12 blms Azalea， 12 sprays．o． Oarnations， 12 blms． Chrysanthemums， per 12 blooms Chrysanthemums，＂ per 12 bunches． Eucharis，per dozen Glardenias，per doz． Lapageria， 12 blmas． Lilium Harrisii，per dozen blooms ilium lancifolium， Lily of the Valley， doz．sprays <br> daidenhair Fern， per 12 banches ．．．40－6 0 doz bunches $\begin{aligned} & \text { dweet Peas，} 12 \text { bun }\end{aligned}$ | Marguerites， 12 bn .1 | $0-3$ | 0 | Tuberoses， 12 blms. |
| :--- | :--- | :--- | :--- |
| Mignonette， 12 bun． | $0-4$ | 0 | Violets， 12 bunche | <br> OBCEID－BLOON in varidy．}

## Fautro－Average Wholgale Pbices． <br> Apples，per bush．．．． 1 i． 0 ．s．d． $20 \mid$ Grapes，Guernsey， 1 b ． riety，per half sieve Cobs，per 100 lb ．．．． Damsons，half sie Filberts，per dozen 100 ï． <br> Grapes， 1 lat quality， black，Englinh． <br> －2nd quality．．． <br>  <br> Melons，ach out dou Peaches，1st size，doz Peaches，1st size $-2 n d$ size －3rd size －Williama Pine－apples，St．M $\quad 40-100$ chrel，each ．．．． $20-60$ Plums，half sieve $26-30$ Plums，Pond＇s eed

## Pinfte if Pots，－Aterblez Whommale Pricoss．



Prices remain about the ame as last reported，except for inferior samples，which are being quoted lower．J．B．Thomas．

## SEEDS．

London：October 2．－Meesrs．John Shaw a Sons，Soed Merchants，of Great Maze Pond，Borough，London，S．E． describe to－day＇s market as bare alike of business and of buyers．Juat now，consumptive sowing－wants are at minimum，whilst no speculation whatever has yet sprung up． All kinds of Clover and Grass－seeds are consequently cheap and neglected．There is no change in either Rye or Tares Canary－seed having for the past month exhibited remarkable stendiness，now shows decided signs of making a jump up－ wards．For Peas and Haricots，the inquiry is slow．Mnstard sud trapereed show no alteration．

## FRUTS AND VEGETABLES．

Bonovert：Oct．1．－Quotations：－Onions，2s．9d，to 4s．par bag ；Horseradish，1s．to 1s． 8 d ．por bundle；Pears，Ss．to 88 Der balfovieve：Apples，98．8d．to 4s．8d．per buabel；Plumm， 2 s －2s．8d．©0．；Dsmmons，18．to 1s．9d．per half－sieve．

Spitalfields：Oct．1．－Quotations：－Apples，Whane King Pippin， 2 s .6 d ．to 3 s ．per half－bushel ；Lord Suffeld，23， to $3 s_{0}$ do．P Pears，Callabash，3s．to 3so 6d．per hallesiera Dutch Bergamot， $1 \mathrm{~s} .6 \mathrm{~d}_{\mathrm{o}}$ ．to $18.9 \mathrm{~d}_{0}$ do．；Cabbages， 48 ，to 5 per tally；Cauliflowers，5s．to $6 s$. do ；Collards，2s．6d．to 3s． do．Colery，8s，to 103．per dozen；Onions， 18 ．to 18,61 ，pen dozen buoches；Greens，buach，1s．31．to 2 s ．per dozen；Bex 1s．bd．per bushel ；Beans，1s．to 1s． 9 d ．do．
Stratford，Oct．1．－Quitations：－Cabbages，2st to 3s．pee tally；Savoys，2s．to $4 s .6 d$ do．；Cauliflowers， $8 d$ ．to 1s． $3 d$ ．pow dozen ； $2 s$ ．to $5 s$. per tally；Turuips， $18.6 d$ ．to $2 s .3 d$ ．per dozen buaches；2s $s$ ．to 40 s．per ton ；Carrots，household，25s．to 35s． do，cattle－feeding，20s．to 27 s ．$\epsilon d$ ．per ton；Mangel，3is． to 75 s ．；Swedes，20s．to 25 s ．per ton；Onions， 28.34 to $2 s .6 d$ ．per bag ；Dutch do．， $25.6 d$ ．to 2 s ．gd．do Apples，English cookers， $2 s$ ．to $4 s$ ．per bushel；do degsert，2s．3d．to 5s．do．；Plums，2s．to 2s． $6 d$ ．par hall sieve ；Damsons，1s．6d．to 3s．do．；Tamatos，English，2a，© to 3 s ．Bd．per peck；Cucumbers，frame，1s．to 24．6d．pa dozen ；Scarlet Beans， $1 s$ s．to 18 。 $3 d$ ．per bushel；and 2.0 2s．6d．per bag；Beets，ès．to 2s．6d．per dozen buabora Celery，8\％．to 1s．per dozen heads＇；Horse－radigh， 0 d ，to h per bundle ；Parsley，1s．to 18． 6 d ．per dozen buachee
FARRINGDON：Ocf．3．－Quotations：－Cabbage，bes wlly Collards and Cauliflowere， $2 s$ ．per doz．；Celery，1s． $2 d$ ，peroll Beetroot，21．6d．per bushel；Carrots，2s．per bug ；Tumip $2 s .6 d$ ．do．；Marrows，1s．per dozen；Parsley，3d．per bunch； Sage and Thyme，2s．per dozen bunches；Applea，Drehem， 1s． $9 d$ ．per half－bushel；Canadian，Gravenstein，Ils，per barrel ；English Grapes，11d．per 1b．；Lisbon，do．，lis pe case ；Almeira，do．，148．do．；Lisbon black do．，18s，dar： Tomatos，3s． 9 d ．per 12 lb ．；Pears，Marie Louise，Bh pr bushel ；Damsons，2s．per half－buehel ；Plums，2s．do．；Appm， Blenheim Pippin，5s． $6 d$ ．per bushel Ribston Pippin， 2 ar ，pur half－bushel ；Cucumbers，3s．per dozen．

## POTATOS．

BOROUGH：October 1．－Quotations ranged from fin in 903．per ton．
Spitalfielips：October 1．－Quotations：－Maip Crop 40 s ，to 50 s ．；Snowdrops， 51 s ，to 70 s ；Braces， 40 s ，to 0 m ； Sutton＇s Abundance，50s．to 60 s．；Imperators，60ss to 8lim Reading Giants，45s．to 60s．per ton．
Stratrord，Oct．1．－Quotations：－Dark goil Bruces，300．to 408．；light do．， 358 ．to 80 s．：Reading Ciants，45s．to 3it
 Begents，45s．to 50 s．per ton．
Farringdon：Oct．3．－Quotations：White Hebirons，Tor． to 80s．；Red do．，70s．to 80s．；Jeannie Deanes，65s．to 50． 50 ． Sutton＇s Abundance，50s．to
Mignumes，45s．to 50s．per ton．
Londor Averagres：Oc\％．2．－Snowdropy，50s．to 70s； Hebrons，50s，to 80s．；Puritans，60s．to 80s．；Irpperatom，tou． to 80s．；Magrumes，35s．to 40s．per ton．

－Owing to the large increase in our circulation，wert reluctantly under the necessity of going to press some houn earlier．Our contributors，who well know what this imply in tha kindly aid us by sending their communications as not later than Wednesday．
＊Plants，Fruits，evc．，to be Named．－The appi cations to nome fowers，and especially fruit，are so numathel at this season as severely to taz out resonery which ow an expendsture of time．labour．and moneng to obsige own readers have no idea．We are always willing the Gardent correspondents as far as we can，but the editing olse must grow Chronicls is our business，to which courysted to observe the rims． Correspondents are respectfully requested lo with at a tines hat not more than six specimens can be deal on the part of ind fendere to send a＇so a small contribu ion to the
Onter．to sent a＇so a smal case is unavoidable．
orphan und．Nelsy in any case named，or asking qusstion dento sending plants or fruits to be named，of ans not mith to ohtain an answer to their enquiriss in the curremubrid Specimens should be good ones，carefully packed and sus onty，or specimens shoula be good ond be sent at one tim
Florists varieties cannot，as a rule，be named．
Addendum．－Caystal Palace Feut Show：$\frac{1}{}$ W．Taylor，gr．to C．Bayer，Esq，Forest Hill $S$ ， SE wishes us to eapply an omission in our riple，Hil lat week＇ianue of the Gardeners＇Chromis．tario exbibite of twelve bunches of Grapes it ax ras ties haviog been placed on a lide－table，The the notice of jadges and reporter Mrs，pearsolit varieties consinced of Gron Maroc，Mrs，Bean Black Madreafield Court，Mancat of A
Hamburgh，and Biack Alicante．
Apples fol Naming：Dartnall \＆Co，Tour fratih unfortanately，got mislaid，and wo should cleaned to entasyour to obtain their names if 100 would kindly mend again．

Braci and White Grapes: $H$. G. $B_{0}$. The berrien are affected with the socalled "spot," sungus called G'æaporium lwsicolor ; there in no known care for it, although the free use of sulphar, which is a abstance inimical to all forms of fuagus life, might ward off fature attacks. It ahould bo spplied mixed with white-wash as a dressing for the hot-water pipen, and for filling evaporatiog pans placed about the vinery. Remove as zoon as seen all the affected berries, burning them forthwith.
Clmbodendrons: R. M. Keep them moderately dry daring the winter.
Ccelogng cristata: $R$. M. When growing, the temperatare of the cool part of the Cattleya-house saits it well, but during the winter it ahould be kept in a cooler house, removing to a warm house before growth begin. It will flower from I acember to March, and if it be not expesed to damp, or the flowers are aprinkled with water, the latter will individaally last in good condition for a long time. Aa antumn approache the quantity of water afforded at the root ahould be gradually redaced, till in the winter just enough is applied ae will keep the paeudo-balbs plamp. In the summer, a alight shade may be allowed on the house when the aun is hottent, at other times full exponure is best for the plant.
Flowrer pots for Plants of Coleus to be Wintreed IN: $\boldsymbol{R}$. M. Half-a-dozen cuttinge would be a nofficient namber for a large 48, i.e., a 5 inch pot.
Fumiators: K. L. G. We ure unable to inform you which is the beat apparatue.
Graprs: A. L. The berries came to hand in a decayed coadition owing to the great beat and bad packing, and no caterpillars were found in the box. Piease send the caterpillar carefully packed in a tin box, when we will endeavour to give jou ite name.
Insect Destroyne Saxtfrage: E. L. B. Probably a grub of some species of weevil. The beetle (weevils) themelven can be caught when feeding at night, but in the case of the grabs it is a difficult matter. You should take up the Saxifrage plante, searching carefully for the grabs, and then replant into fresh soil in another part of the garden.
Insects: A. Parry. The Pear treen were attacked by aswly larvæ. Carefally hand-pick, and deatroy them; or place a beet, or something similar ander the treep, and strike the lower part of the trunke sharply with a mallet, gathering up the larve that fall. If the trees are tall, aprsy with kerotene emalnion, R.McL.
Names of Fruits: Hartwell. Pear Hesale; Apples, 1. Dachess of Oldenburgh; 2, Cox's Orange. A Reader. 1, Hollandbury; 2, Golden Noble; 4, Hawthornden; 5, Brownlee's Rassett; 6, Early Jalian.-C. R. 1. Enile d'Hégst; 2, Fondante d'Automne ; 3, Belle de Bruxellé; 4, Napoléoné; 5, Bearsé Bosc.-W. J. 2. Duchess of Oldenburgh; 3, Keswick Codlin; 4. Lord Grosvenor: 5, Northern Greening; Pear Heacle.-C. W. F. 1, Roand Winter Noneuch; 2, Dachest of Oldenbargh; 3, Hoary Morning: 4, Royal Raset; 5. Damelow's Seedling. - A.E. F. 1, Manx Codin; 2, Ronnd Winter Nonauch; 4, Fcklinville Seedling; Blenheim Orange; ©, Pear Winter Nelis. --Conway. 1, Fzg or White Paradise; ?, Go!den Noble ; 4. Jane Prince Albert; 6 , Oid Foglish Codlin; 5 , Lord Gronvenor; 8, King of the Pip-pins-A. J. K. 1, Adam's Pearmain; :2, Gloria Mundi; 4, Golden Noble; 6, Besspool. Others ancertain. Taanks for donation for Gardeners' Orphan Fand, which ham been forwarded to the Secretary.-Alpha. 1, Kerry Pıppin; 2. Blenheim Orange; 6, Yorkahire Beauty; others probably cider varietien.-W. G. E. 1, Bearré Diel; 2, Williams' Bon Chrétien; 3, Veralam; 4. Thomyson's 5. Murie Louise.-A. Byerly, Chichester. Apple, Ribston Pippin.-H. C. B. 1, amall Lane Prince Albert; 2, Mére de Méagge; 3. Blenheim Orange ; 4, Gioria Mundi; 5, not known; 6, Lurd Grosvenor,-G. W. R. Apple, Hall Door,-A. L. 1, Maréchal de la Cour: 2 Fondante a'Automne; 3 Chsumontella; 4 Daux Sours; 5, Bergamet d'Esperen; 6, Josphine de Malines.-F. L. 1, Doyenné Bounnech; 2, Benpoot; 3', Vicar of Winkfield; 1. Cox'n Orange Pippin. Peach, too far gone.-T. B., Esher. 1. Gloria Mundi; 2, Cellini ; 3, thot known: 4, Blenheim Orange; 5, Alfriston; 6. Margil. - Sherrington. 1, Pear Marie Loulse;

2, next week; 3. Catillac. - Constant Reader. Inabella, or nome nimilar American Grape.
Nambs of Plants: Correspondents not answered in this isous are requested to convult the next number.W. T. H. Yoa masi aend better specimens.$R$ G.K. 1, Aster Tradescanti ; 2, A. cordifolius; 3, A. acrie var. punctata; 4, A. Jevis.
Bagshot. Magnolia acuminata. $-E, ~ A, ~ T, ~ 1, ~ O n-~$ cidinm varicosum; 2, Oncidiam danytyle.-J. $K$. 1, Polygonam cuapidatam; 2, Oncidium cartha-ginewes.-R. M. 1, Matricaria inodora fore-pleno; 2, Pulyatichum acaleatam; 3, Lastrea apinulosa alen 3, Nephrndium molle.-G. A. Pentas carnea. - J. T. 1, Nephradiam molle; 2, Cystopteris bulbifera.-G. A. Nerine $O^{\prime}$ Brienii carmioata. J. M. 1, Cratwañ coccinea; 2, Sambucas canadensie. - $G$. $\bar{K}$. Amaryllis Belladonna. G. H. Gaaphalinm uliginonum.

Petunia: W. A. G. Not uncommon.
Pyros Maulet: E. W. The fruits make a preserve, ratber acid, but very agreeable to the taste. Pare the fruite thinly, and remove the seeds. Boil the fruit gently until it is quite soft, then pass it through a sieve, weigh it, and add half the weight of the best loaf-sugar (cruahed) to the palp, and boil the mixture until it "jellies" as it cools. Pat it away in glane jars, carefully tied down.
Skmdling Baldwin Apple: J. D. Without reeing the plant we are not enabled to form an opinion concerning the pruning that may be necensary. We should opine, having regard to the warmth of the autumn, that a scoall amount of shoot-thinning only will be all the pruning required. It is not good practice to crop young trees heavily, at it tends to check growth too much.
Stoni Floor that Gets Greren: R.M. Use Weedkiller, which is to be bought of the florists and nurserymen. It is a poison, and you mat therefore be careful in its use, and not allow children, domentic animals, fowle, \&c., to go into the room till the ubatance has done its work. It mas be mopped all over the next day, and the dirty water poured into an underground drain. Scrub the floor with a bast broom and hot soap-suds.
Thanatophore: $\boldsymbol{R}$. T. We believe it to be an efficient merns of killing insects infesting planta grown ander glany, without injury to the latter.
Walnuts: H. G. B. There is no difficalty in removing the outer covering of the nute, if you allow them to remain ungathered till quite mature. Do not store them in heap before removing the hasks, bat do it without delay.
Williame' Bon Chbétibn Prar: W. E. No You have let the fruite remain on the tree too long, with the result that they have become "sleepy." This variety should be taken from the tree as soon as the stall parts readily from the atem, going over the tree each alternate day till the crop is gathered. After gathering any of the fruits, place them ia a cool dry place till they begin to change colour. It is at this atage that they are the bent eating, a perfectly yellow Bon Chzétien being nearly always over-ripe. In the South, except in cold clayey soils, this variety should not be grown on south walla, the fraite generally becoming mealy or else rapidly over-ripe. The flavour of the fruit is more racy from tree growing in the open quarters.


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About 2 miles from Uclfield Station, L, B. \& S. C.
GREAT SALE of ROSE3, FRUCT TREGS, and RHODODEN DRONS, by order of Mesars. Wm. Paul \& Son important to the trade.

MESSRS. PROTHEROE AND MORRIS Will SELL by AUCTION, on the Premises, Arches Farm. Framield, near Uckfield, on TU EMAM NEX at inacing the leading sorts of Hy brid Perpetuals, Gloire de Dijon, Pyramid, and Bush APPLES, in all the most profitable kinds Gy00 Standard PLUMy and DAMSONS, very fine trees; Pgra mid PEARS, 1500 Bybrid and Ponticum RHODODENDBONS 1 to 2 feet, many of them large bushes; 1500 PINUS AUSTriaca, 3 to 9 feet, quartered free, all sell plantad. \&C. May be viewed. Catalogues can be obtained on the Premises or of the Auctioneers and Valuere, 67 and 68, Cheapside,
London, E.C. the Vendors invite an inspection by intending purchasers. the Vondors invite an inspection by intending purchasers. Messrs. William Paul \& Son will carefully lift,
any lots on rail at cost of lavour and materials.

\section*{WEDNESDAY and THUREDAY NEXT}

\section*{The SECOND and MAIN PORTION} COLLECTION OF ORCHIDS SOLD by AUOTION, without the least Roserv

\(\mathrm{M}^{1}\)ESSRS. PROTHEROE and MORRIS have received instructions from C. Dorman, Esq., who is giving up the cultivation of Orchids, to SELL by AUCTION, on the Premisas, The Firs, Lawrie Park, sydenham, on past \(120^{\circ}\) Clock precistly, without the least reserve, the
SECOND and MAIN PORTION of his well-known COLLEC TION, comprising -

Odontog
\(\qquad\) the very beet varie,
ties, white and spotted \begin{tabular}{l} 
lorme \\
loct \\
\hline
\end{tabular}
Pescatorel
beauty and scarcity
occerved F.CC have
rillarium superbum leucoglo sum Cobbianun
rubellum Dormanianum
schroderian num
num
Humentianue
Humeanum
lyroglossum
Marshallianum
Oncidium Mantini (see plate)
Polletcianum (sea plate)
macranthum
angustifoliuma
Coelogyne cristata alba
ycaste Skinneri alba, saveral plants
Anguloa eburnoa, from the original plant
Leelii Perrinii alba (not aivea)
the pare white frm
Cattleya Arthuriana (hybrid),
only two plants in existence

\section*{calumivate magnifica}

\section*{Wagneri}

\section*{Arnoldiana}

Duke of Marlborough
Morganix
Schroderi alba
Rex
Lawrenceana
gigas Dormaniana
Trianmi Eboracensis magnific
Sonrise alba Buatlerí
Empress
Russelliana Backhousoian rabra Ggantea Dormaniaza

\section*{Gaocoensis albs}
\(\qquad\) Empreas Vrederick Delitience saperbimima Virginalia

Mr ber
Cattleya Trianæi speciona ", Mendeli splendidissima Alexandrea Dormanaiana Leelia" anceps alba Dawsoni
Mílonio Moreliana atropur
Cymbidium Philbrickeanum,
with fower-kize
Coelia balla
Dendrobiume nobile albura nobilius Maphhinianux pendulu legans anderianum Leedsianum splendidispimum enowmum leacopteram Cooksonsi ypripedium, many seedlingo Savageanum superbum
Morganix
curyandrom magain Harrigianum superbam Niobe
Bartettii superbum leucorrhodum, large spe crmens

\section*{cardinale rubrup}

\section*{orphanum}
grande, eaormous speci-
Elliottianum, grand apecimen apscimen parpuratum,
sedeni
didulum
mand apecimea
Schroderi oplendeas, enormous epecimea Sallieri Hyeanum, enurmons specimen
Mä́devallia Veitchii grandiflora
racemosa Cross:i inelanoxantha olophaatic Harryana, Bull'a Blood Hincrsiana Pieurothallie Boezlii, fioe speOrchids of \(\vee a l u\).

\section*{}
grown NURYRRY STOUK, being the most in wel Sale held at this Nurzery for masay years, by order of y Charles Noble. incluting a portion of the unique colletion of Specimen REODODENDRONS, and matishless Spscime Golden RETINOSPORAS and HOLLIES.

\(\mathrm{M}^{\mathrm{B}}\)ESSRS. PROTHEROE AND MORRIS will SELL by AUCTION, on the Premises. The Narsarie Sunningdale. close to Sunningdale station, and within uing distance of Bagshot. S. W. R., on MONDAY, Octobar 21, Lu
FIVE FOLLOW ING DAYS, at \(120^{\circ}\) Clock each day, withon the last NURSERY STOCK. the whole in the best possible condition for removal, comprising thou ands of Rhododendrons amongt them a large number of unique Specimens and Standarda, unsurpassed in the trade, and forming one of finest collection ever submitted to public competition. Sereral thonuad of Ghent and other Hardy Azaleas, 10,0 0 oval-leaped Privet, thousands of Berberis aqutrolia, enormous quantities of Thujops:s, suitable for hedges, screeus, and general plauting a grand lot of perfect specimen Variegiteu Hollies, matibless specimen Golden Retinosporas, Dwarf Roses, a largo quantity of standard and Bush A pples, Gooseberries, Curranti, Standard, Opnamental, and Forest Trees, and other Stoct, whioh will be found fully desaribed in Catalogues to b obrained (post free) of the Auctioneers.
It is impossible to adequately cill attention to thim importust Sale within the limitu of an ordinary advertisement, and intending purchasers are respectully invited to inspect the tock, which will well repay a visit ts these Nurseries,
May be viewed. Catalogues had on the premises, and of the
uctioneers and Valuers. 67 and 68, Cheapeide. Londoa. E.O.
Hollamby's Nuraeries, Groombridge, near Tabbride WELLS
GREAT UNRESEBVED SALE of NURSERY STOCK, by Order of the executors of the Mr, Edwin Hollamb ESSRS. PROTHEROE AND MORRIS will SELL by AUCTION, on the Premises, as above. close the Groombridge Rail way Station, on THU RSDA Yand ERIDIY, October 24 and 25 , at 12 u \(^{\prime}\) Clock punctually each day, 45,000 CONIFERS, named and other Bhododendrons, Azalias, Laurels, Larch. Scotch Firs, Ast, Spanish Che,tnuta, strongh transplanted Quick, Hardy Climbers, Dwarfs, Ciimbing, and other Roses, the whole in splendid condition for ren
Seakale, ex ra strong for forcing, and other
May be viewed any day priar to the Sale. Catalogues mas May be riewer any day priar the sulo. Calag Yaluesh 67 and 68, Cheapside, London, E.O.

Two Days' 8ale.-Tottenham. N.
Adjoining the Tottenham Hale Station, Great Rastara

\section*{Main Line。}

Mr . Ware's GREAT ANNUAL SALE of immense quantitite of NURSEGY STOCK.

MESSRS. PROTHEROE aNd MORRIS will SRLC by AUOTION, on the Premise, The Hale Farm Nurseries, Tottenham, N., on TUE dD 4 Y aDd October 29 and 30,1895 , at 11 o clock proc
2510 RO SES IN POTS, EXTRA STRONG, of the bast sorth. 00,000 CARNATIONS and PICOTEE 3 . - Named sorts in potsh
consisting of the very best varieties in cultaiin,
new and old kinds.
TREE CARNATIONS in variety, fiae plants in 48 -pots. OOO DONIBLE and SINGLE and a special feature at this Nurnery. These we triber offored both in mixcture and selected to colour. The will bo are remarkably stron
50,000 CLEMATIS and AMPELOP3I3, and other Climbers 100,0 O SEAKALE and ASPARIGUY. Extra atrong forcing stuff. Both these are grown by Mr. Ware in enormand has suited the growth of both romarkably
Ware states that he never had them so fine. Ware holld 25,000 HOME-GROWN LIIIES. Of these, Mr. Ware balay One of the large.t collections in the traca. and and such cannot fail to give satiofaction.
203,000 Berlin CRUWNS LILY OT THE VALLEI. -Theo are exceptionally fine, bting of the true Borlin or bo forcing variety.
FORCING PLANTS and BuLbs, io ondless variety. 200,000 HERBACROUS PLANTS and MISORLLANBO HOLEXBOCKS, selectod to colour. CABISTMAS ROSRA
 thousands of other PLANT3. TREEN, and SEROPARS great variety, including \& large quantity P PGET, the
suit tble for forming Sureens, broad-leaved PRI buehy atuff, \&c.
The stuck may be viowed any day prior to the gale. Catalogu-n may be had on the Premises : and of thed 68 , tioneers Land and Katate Agonts, and
Cheapaide, London, E O. ; and Lejtonstone.
sales of Azaloms, Camollias, Palms, and Decorativo LANTS. FERNS, \&O.

IESSRS. PROTHEROE 4 ND MORRIS re spectively an ounce that their SALES of the sbon will commence on MONDAY. October 21, and then the sesso EVEAY MOND

\begin{abstract}
Enfield Bighway, N.
Sale of LIVE AND UEAD FAKMING STNCK, by order of Mr. Jobn Joaiah Wilson, jun., who is giviog up his Farm and Market Gardens in cuns-queace of expiration of lease sad retirement from buriness chrough ill-health.

MESSRS. PKUTHEKUE AND MOKRIS will SELL by AIICIION, on the Premises. Ro:e Cottage Farm. Fofield Highway, opponite the Black Horse, one mile from Brimsdown and Churchoury stationn and two aises from
Enfield Town stations, G. E. Ry, on THURSDAJ, ()ctober 17 , Enfield Town otations, G. Elock precisely, 12 valuable CABT HORSES, fit for brewers or coriciactors (all worked by Mr. Wilson), two Ponies, firot-claen Cob, over fourteen hands, five years, by Pireus; brindle Jersey Cow in Calf, four Spring Market Wagkons, three Vans, eleven Market Gardener.' Carts, three light Spring Cartr, and others; everal Sets of Harness, Market Gurfen Implements, consisting of Ploughs, Subsoils. Horse- Hoes, Mould Ploughs, Rollers, five sets of heavy and light Harrows. Rods fit for Basket-making, the produce of over two acree of laud, and two years' crop, one and a half acres of Champagne khubarb Roots, siz acres of Savoys and Collards, and many On view two days prior to and morning of Sale. Catalogues and district; at Mr. Wilson's Stan', Spitalfelds Market; of the Auctione
\end{abstract}

Woking, surrey.-Without Reserve

MESSHS. YROIHERUE AND MORRIS are pelled to effect an immenimite clearance of arge partion ot ground, to SELL by AUCTION, on the Premiser, the Horsell urseries, Woking, about a mile from Woking Railway Station on TUE +DAP. Oc ober 29, and two followiag days, at \(120^{\prime}\) Clock precisely each day, several Acres of well grown remuval, compri ing a la'ga quantity of Border Shrube, in great variety ; 30,0 , \({ }^{\prime \prime}\) ) Frust 'lrees, contisting of Standard. Pyramid, and Dwarf-trained Apples, Pears. Plums, Peaches, Nectarines, and others; 30.000 Forest Trees. Scotch Firs, Pinua, Birca, Quick, de.; 5000 Standards, Hal -standards, and Dwarf Rowes, iu thll the best varieties; 3000 Potting shrubs, ond Hardy Azaleas. and other Stock. May be viewed any day prior to Valuers, 67 and 68, Cheapside, London, F.C. And Leytonstone.

Frlday Next, October 18, 1895 - Without any Reserve. By Order of Mrsses. Sander \& Co. St. Albang.

\section*{2000 CATTLEYAS,}

Ia aimply marvellous condition. The grandest lot ever BANDER'S MONTANA TYPE Of IMPRARALS an AUHKA, These are the frat and only plants from these mountains, an are from quite a differept part of Colombia to those sold us on October 4. Remarkable Plants of-
CITLEYA, probably GIGAS or AUREA section, MONTANA
type. All Seeding Plants. and mostly all unflowere
CATTLEYA GIGAS IMPERIALIS TYPE.
The great crimson and purple gigas. 275 Lot
187 lots of a form of SANDERIANA.
from a native collector, from the far exterior. These are of 2 are long. as in Letia, c'ub-haped, with thick, short, broad leavea, The plants are simply grand. This magnificent type in qu te new forms as our celebrated Montana varieties of Cypripedium insigue. Our collectors are exploring vast districts at grest expense to secure all the forms of these
magnficent Cattionas, which we shall hope to offer to Orchidints wilhout any Reserve. We must sell them, if only t) continue the grtat work of coilecting we have undertaken in these new puthless wilds and hithero impenetrabie mountains. Evervimpartation will be offered as it comes to hand.
This is the best time of year to buy this type of Cattleya This is the best time of year to buy this type of Cattleya this we guarantee, the plants are perfectly dormant, and cr uld
not be in finer or more perfect condition for growing. AlsoA NEW GUINEA DENDROBE,
with large white flowers, as Jarge as D, bigibbum, with bulb in the way of D. atro-volaceum. Collector describes it as a

Together with other fine ORCHID?
20 Bozes of MIXED ORCHIDS.
Also CTPRIPFDIUM INSIGNE, from near the Spicerianun

IIESSRS. PROTHEROE AND MORRIS will SRLL the above by AUCTION, at their Central Sale October 18. at half-past \(120^{\prime}\) Clock. On view morning of Sale, and Cataloguea had

\section*{DUTCH BULBS.}

\section*{GREAT UNRESERVED SALES}

MESSRS. PROTHEROE AND MORRIS will 8RLL by AUCTION at their Central sale Rooms. 67 large consignmento of NAMED BYACANTHS, TUKIPS, OROCUS, NARCISSU8, and other BULBS from Holland, lotted to enit the Trade and Private Buyers.
Aloo RoMAN BYACINTHS, LiLIUM CANDIDUM, SNOW DROPS, \&

On riew morning of Sale, and Catalogues had.

\section*{Thursday Next.}

\section*{MESSRS. LINDEN'S}

\section*{FIRST GREAT ORCHID SALE}

OF TEE SEASON

\section*{Mr. J. C. STEVENS}

Has received instructions from Messrs. Linden, L'Horticulture Internationale, Pare Leopold, Brussels, to SELL by aUCTION, at his Great Rooms, 38, King Street, Covent Garden, on THURSDAY NEXT, October 17, at half-past \(120^{\circ}\) Clock precisely, a magnificent Colleotion of IMPORTED, SEMI - ESTABLISHED, and ESTABLISHED ORCHIDS, comprising-

\section*{A NEW HYBRID CATTLEYA,}
probably a natural Hybrid between Cattleya aurea and gigas or Hardyana,

The Magnificent and Rare

\section*{SOBRALIA LINDENI.}

The most beantiful and absolutely grandest Sobralia ever introduced. Only a few plants having been imported, a plant of the same has just flowered in the Collection of C.J. Lucas, Esq.

Linden's famous strain of
CATTLEYA MENDELI.
aperb Established Plants, all anflowered.
The New and beautiful
Letio- CATTLEYA LINDENI
LELIO-CATTLEYA TREYERANI
LexiO-CATTLEYA sAYANA
LELIO-CATTLEYA MARGARITEE

\section*{A grand lot of}

\section*{CATTLEYA MAXIMA FLORIBUNDA.}

The freest-flowering Cattleya, producing as many as 20 large flowers on one spike, semiestablished, in perfect condition, all unflowered, many in bad.

Also fine plants of
CATTLEYA MAXIMA CICANTEA.
Semi-established, unflowered, many in bud

\section*{The New and Beantifal}

\section*{ZYCOPETALUM JORISIANUM}
having been introduced under enormons diffioul ties from the Sierra de Marawaca, growing at an elevation of 6500 feet, the highest point of the Surima Chain, on the territory of the Mariquitares Indians, the most savage tribe known.

Seleoted Plants of Linden's Choicent
Varieties of

\section*{LaLLIA PURPURATA.}

Together with a fine importation of ONCI DIUM LANCEANUM, in grand condition fine Entablished Plants of PHAJUS HUMBLOTI, CATTLEYA REX, \&c.
On view morning of Sale, and Catalogue had.

\section*{DUTCH BULBS-DUTCH BULBS.}

Gales nearly every day, in Large and Smau Lots, to sust all Buyers.

MR. J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Btreet, Covent Garcen, neary gnments of Choice HyACINTHS, TULIPS. CROCUSR8 NARCISSU'S and other BULBS arriviak daily from well NARCISSUS, and other BULBS arriviak daily from wol

On view morning of Sale, and Catalogues had.

\section*{WEDNESDAY NEXT}

\section*{IMPORTANT SALE.}

A GRAND IMPORTATION of ROSES, from a trustworthy German Grower, including many of the newest and moet popular sorts of Standards. Half-Standard, Dwarfs, and Climbers. (The Roses from the above Nupseryman sold lastapring A collection of CARNATIONS, number of well-grown CANDIDUM, and ofher: FREEIA BEFRACTA ALBA,
ANEMONES, GLADIOLI, and many other Bulby. Also special consignment of

BULBS FROM HOLLAND
Including a Fine Collection of Double and Sinale HYAOINTHS, a great variety of TULIPs, CROCUSEE, SCILLAS, in aplendid Order for Win'er and Spring Flowering, rare NARCISSUS,
SNOWDROPS ARUMS IRIS, 1000 SPIR AC JAPONICA. 1000 DIELYTRA SPRCTABILE EARLY BOMAN HYAONTEA, DIELYTRA SPACTABILE, KARLY BOUANHEACINTEX,

\(\mathbf{M}^{1}\)R. J. C, STEVENS will SELL the bore by AUCTION, at his Great Rooms, 38, King Street, Covent
Garden, on WEDNE 3DAX NEXT, Oct. 16, at Half-pat Twelve
o'Clock precisely.
On view morning of Sale, and Catalogues had.

\section*{Baunder: Lane Nursery. Woking, Surrey.}

About 1 mile from Worplesdon and 3 miles from Woling Stations on the L. \& 8. W. Railway
UNRESERVED CLEARANCE SALR.

IIESSRS. WATERER AND SONS are instructed by Messrs. T. Holdforth \& 800 , who are on MONDAY, October 21, 1895, and TWO EULLOWING DALS, at 11 for l's O'Clock. the whole of the Young and Well-grown
 ralifolium, 1 to 3 ft ; 10,000 Dwarf, Tea, and Hybrid Per10.000 Manetti Stocks; 8000 Standard. Pyramid, and Dwarf trained and other Fruit Trees; 15000 Gooseb rry and Currant Bushes; 10.000 , trong Raspberry Canes; 8000 Lime, Mountain Ash, and Labrunum, from 8 ft . to 15 ft , ; 3000 Pampas Grase, 10,000 Virginia Creepers, 10,000 Ivies of sorts, 10,000 Hypericuin Calyainum, English Yews, from 3 ft. to 5 ft ; and thousands of Conifers. Ornamental, Kvergreen, and Devidnous Flowering and well worthy the attention of Nurserymen and othera.
May be viewel six days prior to the Sale, and Cataloguea had upon the Premises, and of the Auctioneers, at either of their Offices, at Chertsey, Weybridge Station, and Walton oaThames.
THE FREEHOLD NURSERY, comprising about 6 acres, With Two Cottages, forming most Magaificent Site for the
Erection of a Residence, TO BE SOLD.

\section*{ORCHIDS.-ORCHIDS.-ORCHIDS.}

MESSRS. POPE AND SONS have received instructions from J Fellown, Esq. J. P., of Churchfields. West Brom wich (who is removing to a distance, and will hare
no accommodation for Orchids), to SELU by AUC IION at their no accommodation for Orchids), to 8ELL by AUC CION at their
Sale Rooms, 6. Phillip. Street, Birmingham. On THU RSツAY Sale Rooms, 6. Phillip Street, Birmingham. on THURS!AY
NEX Oct 17. Ot Haif-past 1 o'Clock proapt, the whole of his very ChOICE COLLEC IUN of ORCEID3. including very fine Cattleyas. Onontoglossuma, Oncidiuma, Cyp+ipediums, Masdovalliar, Maxillariar, D ndrobriuma, Thuniae, Pleionies, Phalænopsis, Sophronitie, Ly castes, Coelogynes, Cymbidiums, da. amorget which will be foupd many Rare and Choice Varietien. logues post-free on application to the Auctioneers.

\section*{West Drayton, midalesex.}

ELEVENTH ANNUAL SALE Of NURSERY ERUIT STOOK 1 ESSRS. NORMAN AND SON are instructed ANNUAL SALE of NURSERY FRUIT STOCK on the Ground. On TUESDAY and WEDNESDAY, Ootober 29 and 30 , 1886 .
each day at 11 o'Olock punctualiy, in consequence of the each day at 11 o' Olock punctuall
 not bien brought before public notice, oxcopt at thew Sales ; abort and Hiff-ntadard PLUM TREES.

5000 Standard OHERRY TREES, 3000 PEARS. 100,000 CURRANTS and GOOARBERRIES, and about
Full grown, and suitable for Forcing and other purpose includiog Linmeus. Champsgoe, Albert, \& i., of which On view the day prior to the Sale, and Catalognes had of On view the day prior to the sale, and Catalogues had of 449 Covent Gurden Marker, London, W.C.; and of the Auctioneers, Uzbridge, Middlesex, and Beacoasfeld, Bucks.

ANTED to RENT, on Lease, everal acree of ARABLE and PASTURE LAND. With some Glaes preferred. Fulr particulars to C. T., Gardeners' Chronich

\section*{SALES BY AUCTION.}

To Market Gardenery, Fruit Growers, and Estate THE NURSERY, DOWNEAM MARKET.
mpportant two days sale of valuable

IR. CHARLES HAWKINS is favoured with instractions from Messrs. Bird \& Vallance to sELL I AUCTION. on FRIDAY and SATf-past \(100^{\prime}\) o'clock12,000 FRUTT TREES,
apecialy grown for Market Gaydenera and Fruit Growers including the best varieties and most popular sorts; 150 ORNAMENTAL TREES and SHRUBS of various sizes, al growing as apecimens: 100,0C0 FOREST TREES, 1000 CARForthy the atrention of Planters; 1000
The Srock may be viewed at any time before the Sale upon applicat:on to Messrs. BIRD AND VALLANCE. Downhara Mirk it Yellauce, Downham Market; or of the Auctioneer officea: Dow' ham Market and Bank Chambers, King's Lynn.

\(\mathbf{M}^{\mathrm{B}}\)
R. W. DURANT will SELL by AUCTION, 1 . 8: Peter's and Catherine Lane Nurseries, st. Albas. Herto on Uctober 24 and 25,1895 , at \(110^{\circ}\) Clock each Flurit, a mprieing large span-roof Conservatories. Forcingbousen. Frames, large Halifax Boilers, 800 feet 4 -inch H.-W. Piping. Furnace Fittiogs, Cisterns, 8pecimea Plumosa and other Ferns, Bouvardias, Climbing Begonias, Palms Aspidistras, Solanums, Plumbagos, Double Primulas, large Azaleas, Clerodendrons, Genistas, and other pot Plants ; Hardy Perennials, \({ }^{\text {Peara, Plum, Apricots, Cherries, Bush Trees, Roses, Ivies, }}\) Prears, Plums,
On view day previoas and morning of Sale, and Catalogues obtained of W. DORANT, Auctioneer, St. Albans.
WANTED, to RENT, SMALL NURSERY

W ANTED, to RENT, one or two thousand feet ran of MODERN GLASS-HOUSES, with open ground and Dwelling- honse, within 20 miles of London.-G.L.,
41 , Wellington Street, Strand, W.C.
WANTED, to RENT on Lease, not less than ANTED, to Reara, NURSERY, about three acres of land, with four handred foet run of Glass or more, within two mile of a Town; with no Stock or very little.
W. H., 41, Wellington Street, Strand, W.C

HOR S A L E.- Price £400. High-class Gouth Coast Town.-Particulars from H. R., 4, Lordship Terrace, Roth's Road, Dorking.
\(T\) O BE DISPOSED OF, a MARKET districts, consisting of 6050 square feet in five Houses, erected within last three years; nearly 1 acre of rich pasture, and une of the most genuipe things ever off red. Twelve miles

Splendid Opportunity to Gentlemen at command. \(\Gamma O B E\) SOLD, as a Going Concern, Goodwill 1 free, of O.d-Established FLORIST and MARKET NUR situated at well-known watering-place ; well stocked, and ia thorough working-order; great and iucreasing demand for Cat Fiowere, Cucumbers, romatos, and every kiad of Marlet Produce in Ylant Trade. Being a sound and genuine concern, it is well worth attention. Long lease, small ground rent. The Stoct (which is clesn and well-grown, being grown on for Autumn and Spring worl) at low valuation. Price for Land, with all the Glase Erections end Pipings, 21.750. No Agents. Applr. OWNER, Gardeners' Chronic e Office, 41, Wellington street, Strand, W.C.

Splendid Opening for Frutt and Flower Growing.
IENT (SWANLEY), - FOR SALE, a Arable Land, well adapted to Yrait and Flowers, with eight Glase Hooses 150 feet long, one 100 feet long. cottage and abede, stabliag for three horses, together with well-buil
be zold in two Lata.
PRALKo, Land Agente avd Valuera, Dartford.

\section*{Hooton Estate, Cheshiro.}

\(\mathrm{T}^{0}\)TO MURGRRYMEN, FLORISTS, and OTHERS BE LET, the prodactive gardens of cellant stock of Standard Apple and Pear Trees. The glass comprises Greenhouse, three Vineries, Peach, Orchard, Tomato, Cucumber, and Melon Houses; there are the asual Potting Sheds, Fruit Room, Office, Gardeners' Bothy, Stabling, \& \(e_{0}\) ale good Gardeners House.
For further particulars, apply to Mersrs, SMITHS, GORE AND CO., 16, Whitehall Place, London, S.W., and 6, Newgat street, Chester.

\footnotetext{
SMALL COMPACT NURSERY TO LET, b Acre of Land, on Lease. Rent, E45. Stocik optional. CAreniele Onice ajoiniog may bo harl.-G. E., Gardenera
To Nurierymon and Fiorista commencing business AMPTON-UN-THAMES, on Thr MARLiNG lonm, the faverurite neighbourhood loo Growers, FREE deep F oh LaND ior MALE, on ear syutem of paymuewt. Ercellent aites LUGHBM (Burvegor), the Ratele Oficply Hampro YR DiK. \(G\)
}

F

\section*{To Florists and Gardeners with Capital} R SALE, important high-class LOCAL BUSINESS, splenaid position, main road. Nine miles from Covent Garden. Same hands twenty years, Fifteen Greenhouses and Pits, all heated ay Hotwaric includes all Glass, stock, and Plant.

FOR SALE, a small valuable long leasehold NURSERY, 6 miles from Covent Garden. Seven large Greenhouses, well stocked, two Vineries, Cucumbur-house. Planthonses, five-roomed Cottage. Low Ground Rent. Lease eighty-siz years to expire. Eighty-five feet Glass. Facing \begin{tabular}{l} 
main road. All \\
Tooting, \\
\hline
\end{tabular}

\section*{MANCHESTER WHOLESALE FLOWER MARKET.}

CUT FLOWERS FOR FLORISTS. EO. FORBES, the largest Sa'esman of Cat to SEND CONSIGNMENTS on reoeipt of letter, telegram, or telephone. with quickest possible despatch. Write for
PRICE LiST. All Florist's Requisites kept in Stock.

National Telephone, 1059. Established 1878.

\section*{UNEQUALLED ARE THE FOLLOWIKG FOR FORCING}

BUDS INNUMERABLE. RHODODENDRONS, finest named, AZALEA MOLLIS, in great variety GHENT VAR., finest in the Irade PONTICA, unequalled. ANDROMEDA FLORIBUNDA JAPONICA. KĂLMIA LATIFOLIA MYRTIFOLIA, very fine. RHODORA CANADENSIS. Dozens, Hurdreds, or 1 housands. CHARLES NOBLE, BAGSHOT

\section*{CHRYSANTHEMUMS.}

THE RYECROFT SET Of DRESSING INSTRUMENTS.
Three pairs of Forceps, Brush and Case complete, 10s. 6d. Ls-re Forceps, for pulling centrex, 38. \(9 d_{0}\); Smaller ditto, for

The BEST CUPS and TUBES are-
THE BECKETT.-All sizes, both for Japanese and Iocurved, at 9 . per dozen; or, with additional tube for raising the bloom 3 inchea higher than the ordinary
THE SPRINGTHORPE.-For Japanese and Incurved, all sizes, 9s. per dozen. All free for cash with order.

\section*{H. J. JONES,}

RYECROFT NURSERY, HITHER GREEN, LEWISHAM.
15,000 PRIIE CARNATIONS \& PICOTEES
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RINK HALL, BLACKHEATH (opposite S.E.B. Station) WEDNESDAY, October 30, and THURSDAY, Octobm, 1895; when Prizes amounting to upwards of \(\mathfrak{\&} 100\) will be Schedulo of Prize
schedule of Prizes, and all particulars, may be obtaibed application to Mr. FRED. J. GARW OUD, Hon. Sec., 37 , Tume
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The Bulbs of this variety are largely grown by the Chinese in fancy bowla, and its presence in the house is considered an exabem of good luck For invalids and others interested in watching the growih of a plant from day to day, we know of nothing that offords ruch a great amount of pleasure. FINE


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FRIDAY, OCTOBER 18, 1895.
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2000 CATTLEYAS IN SIMPLY MARVELLOUS CONDITION.
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The Grandest Lot ever Imported from SAN HUACA.

\title{
SANDER'S \\ montana TYPE OF IMPERIALIS AND AUREA MIXED \\ (461 LOTS).
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These are the first and only plants from these mountains, and are from quite a different part of Colombia to those sold by ns on October 4.

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REMARKABLE PLANTS \\ CATTLEYA, PROBABLY GIGAS OR AUREA SECTION (MONTANA TYPE). \\ All Seedling Plants, and mostly all unflowered. A much diversified and most remarkable lot of plants.
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CATTLEYA CIGAS, IMPERIALIS TYPE.
THE GREAT CRIMSON AND PURPLE GIGAS 275 LOTE.

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From a Native Collector, from the far interior. These are of a wonderfully distinct-looking and promising oharacter-bulbs are long (as in Lælia), olub-shaped, with thick, short, broad leaves. The plants are simply grand. This magnificent type of Cattleys gigas, together with C.aurea, will be as prolifio in quite new forms as our celebrated Montana varieties of -

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Our Collectors are exploring vast distriots, at great expense, to secure all the forms of these magnificent Cattleyas, which we shall hope to offer to Orohidists without any reserve. We must sell them, if only to continue the great work of collecting we have undertaken in these new pathleas wilds, and hitherto impenetrable monntains. Every importation will be offered as it comes to hand.

This is the best time of year to buy this type of Cattleya; this voe guarantee, the plants are perfectly dormant, and could not be in finer or more perfect condition for growing.

\section*{\({ }^{\text {arso, }}\) \\ A NEW GUINEA DENDROBE, \\ With large white flowers, as large as D . bigibbum, with bulbs in the way of D . atro-violaceam.} Collector describes it as a GRAND NEW DENDROBE.

Together with other fine Orohids, including TWENTY BOXES OF MIXED ORCBIDS.
FOR ALL PARTICULARS OF SALE, SEE CATALOGUE.
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PROTHEROE \& MORRIS,
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THE

\section*{Gardeners Clironide.}

\section*{SATURDAY, OCTOBER 12, 1895.}

\section*{THE "SPOT" DISEASE OF ORCHIDS.}

TTHE disease known as " spot," whioh appears under the form of brown apots or blotohes on the living leaves of Orchids, is unfortanately too familiar to cultivators and admirers of these plants, and although the health of the plant is not materially affected, exoept when the spots are unusually numerous, nevertheless the unsightly blotohes on the leaves detract greatly from a fall appreciation of the beanty of Orchids when in bloom.

The disease first appears under the form of minute pale spots, one to two millimètres in diameter, on the upper surface of the leaf, which vary considerably in number and arrangement, being in some instances numerous and orowded, in others, few in number, and scattered. Every portion of the leaf is equally susoeptible to the disease, and the fact that very young leaves of diseased plants frequently show "spot," has been considered by some as strong evidence in favour of the disease being due to some parasitio organism; this, however, is not the true explanation, the disease proving oonclasively to be of a non-parasitio nature, and with proper precautions to be entirely under the control of the cultivator. My previous note" announcing that "spot" was due to the presenoe of an organism called Planmodiophora orohidis, was based upon the absolute agreement with the microscopio details of two diseases of Vine-leaves desoribed by Viala and Sauvageau, \(\dagger\) and attributed to the presence of two organisms aalled Plasmodiophors vitis and Plasmodiophora oslifornics respeotively. Returning to the Orohid disease: the minute pale spots already alluded to, whioh, it may be remarked, are not at all conspiouous, and are likels to escape observation unless specially looked for, soon assume a pale brown colour, and gradually increase in size, retaining an irregularlycircular outline, until they attain a diametor varying from four to eight millimetres. When the spots are numercus and near together, they frequently run into each other, forming irregular blotohes of variable size and form. As the disease progresses, the spots beoome darker in colour, and owing to the collapse of diseased cells beneath the epidermis, the surface of the apot beoomes depressed below the level of the surface of the leaf. In many instances, the diwease passes oompletely through the leaf, forming a corresponding brown depressed spot on the under surface.

\footnotetext{
* Annals of Bot., vol. ix. p. 170 (1895),

4 La Brunimare et la Meladio de Californie. Joum. de Bot. tom. Vi., pp. 365 and 378, pl. xil. (180) \()\)
}

Microscopic examination shows the following details. The first indication of disorganisation is platmolytia, followed by the complete disappearance of the chloroplats from the palinede-cells of the leaf, hence the pale coloar of the spote daring the firat atage of the diseare. This is immediately followed by the appearance of a highly refringent, hyaline, oleaginout-looking aphere in each cell. Daring the early period of formation, the centre of the aphere present a granalar appearance, and when broken up and treated with a aolation of iodine, the granales prove to be minute atarch graina, which were liberated from the divintegrated chlorophyll grains, and engalphed daring the formation of the aphere. Within three daya from the first appearance of the pherea, the enclosed atarch grains have become completely dissolved, and their substance added to the common mass. If at thic atagea section through a diseased apot be piaced in water and examined nuder the microscope, the apheres will be seen to undergo vacuolation, gradually changing from the previous solid condition into hollow vesicles, the walls of which become irregularly perforated or reticulated, the configaration of the network alowly and constantly changing after the fashion of the movements presented by the vegetative phase of Planmodiophora Brassicæ, but differing in the movements, being of a parely phyaical natare, the perfectly homogeneons membrane becoming thinner in proportion as the vesicle increases in size, and in conatantly retaining a rounded, even contour. Increase of size usually continues until the vesicle fills the cell in which it is contained. Vacaolation takes place exactly at atated above when sections are placed in a 1 per cent, solution of osmic acid inatead of water, which, taken alone, in sufficient proof that the epheres in question are not of an amoeboid natare. In some instances, instead of one, several apheres are formed in a cell, esch undergoing racaolation, bat remaining comparatively amall in size.
The composition of the epheres is proved by the action of reagents to be complex, and although I bave sometimes spoken of them as tannin-venicles, it must be clearly anderatood that I do not intend to convey the idea that they conaite entirely of tannin, although agreeing in many reapect with the atructures called tannin-vesiclen by Klercker,*
That tannin is present is shown by the following reactions: Potassium bichromate produces a brightbrown precipitate, insoluble in water; an aqueous solution of cupric acetate causea a dingy-brown colour, which changen to green when subsequently treated with an aqueous solation of ferrous euphate; a 1 per cent. solation of osmic acid blackens the apheres, but as previoasly stated, does not prevent vacuolation. Finally, the accumalation of methyleneblue by tannin-bearing cells, as pointed out by Pfeffer, + held good, the vesicles becoming stained deep blue after remaining in an exceedingly dilate aqueous solution of methylene-blue for twenty-foar houre ; iodine-green may be abbetitated for methyleneblue with good resalts. All the above reactions are mont decided before vacuolation takes place; in fact, when the venicles are fally distended, bat little coloration is produced by any of the reagents mentioned. Oa the other hand, the presence of proteid in the apheres is saggented by the rapid staining of the mass, on the application of auch reagent as eosin, carmine, iodine, \&c. Carbobydrates are also in all probability present.
The apheres originate in the cell-sap, and their presence depends entirely on plamolysis of the cells, which occurs during the earliest phase of the disease. Contemporaneously with the formation of the tannin-venicles the cytoplanm becomes turbid, the primordial atricle at the ame time becoming tinged brown, and undergoing important changes. In nome cases, the inner surface of the latter becomen aniformly covered with minate, apherical masees, and in this condition rewembles, soparficially, celle tllled with the spores of a Planmodiophora; here, how-
* Studien thber die Gerbitottrikuolen. Thblager Inangur imeert. 1888.

over, the resemblance ende, as the minute apheren are found to form only a single layer lining the primordial utricle, and not completely filling the cell, as in Plasmodiophora; furthermore, reagents show that the spheres consiat of tannin, and not protoplasm. In other cases, the inside of the epiplasm, and sometimes also the cell-wall-which, along with the other parte, undergoes disintegration -is covered with tabes or varionsly branched, very slender rode of a brown colour. Usally, however, the epiplam or primordial ntricle become entirely disorganised, drops of tannin accumalate at various pointainits abstance, accompanied in many indtancea by minate crystal-like bodies. These eventaally disappear, leaving holes in the membraue, which, along with others previously present, prodace an irregular reticulation, the whole being of a brown colour. The nucleur of the cell frequently remains anchanged throughout the entire çcle of disease.

In Viala and Saragasa' account of the Vine disease previously alluded to, vacuolated tanninveacle and the reticulated primordial utricle have been reapectively interpreted at constituting the vegetative phase of their apposed Plasmodiophora vitin.

The investigation of the disease under contideration was at first puraued along lines suggested by the preconceived idea that a fungus was the cause of the mischief, and it was only after numerous and varied experiment. had failed to demonatrate the existence of the hypothetical fangus, that a search was made for bacteria, tat with a like result. Finally, failing to induce the disease in bealthy plants by inocalation with the expressed jaice from diseased pots, even when introduced under the epidermis, thas proving the absence of an enzyme or organic ferment, which would have been due to the presence of fungi or bacteria, this was accepted as corroborative evidence of the sbuence of these organimm.

At this atage, Mr. W. Watson, assistent curator, Royal Gardens, Kew, whom I take this opportunity of thanking for numerous practical hint during this investigation, aggested a wadden chilling of the plante as a probable cause of the divease. Actiog on thin suggention, the following somewhat drastic experiment was undertaken.
A young healthy plant of Habenaria Susannx, R. Br., perfectly free from " wpot," and which, up to the date of the experiment, had been growing in a house having a temperature ranging between \(75^{\circ}\) and \(80^{\circ}\) Fabr, wat elected for experiment. Minute particles of ice were placed at intervals on the unipjared epidermis of the upper aurface of the leaver, the plant-along with the pot in which it grew-was then placed in a sink and covered with a bell-jar, and cold water from a tap allowed to flow over the bell-jar for twelve hours, during which time the temperatare inside the jar ranged between \(41^{\circ}\) and \(45^{\circ}\) Fahr. Twenty-four hours after the ex. periment, the points on the aurface of the lesven originally covered by particlen of ice were pale in colour, and on examination under the microscope, plamolyair of the cells of the palisade-tisaue, and degeneration of the chloroplasts, were found to have taken place. The remaining apote were examined at intervaly, and within four days, every phase of the disease was obwerved, agreeing in every respect with the feature already described.

The foregoing experiment showed that a nudden fall of \(30^{\circ}\) of temperatare could not induce "pot" on the dry arface of the leaf, but only at those point where it had been mointened by the melted ice. That the chill caused by contact with the ice itself was not neceasary for the formation of "spot," was proved by a second experiment with the name apecies of plant, all the conditions being as nearly as ponnible counterparts of those in the first experiment, excepting that minute drops of water at a temperature of \(45^{\circ}\) Fabro, were placed on the leavea instead of particles of ice. A diseased opot appeared at each point previously occupied by a drop of water, and showed all the microncopic characteristics of true "spot." Namerous additional experiment. with the object of determining the minimum depres.
sion of temperature necsasary to produce the direate, howed that the formation of "spot" could not be indaced by a fall of lean than \(9^{\circ}\) Fahr., from the average temperature in which the plant had been previously growing. One other point in regard to temperature was clearly demonatrated by the ex. perimenta, viz., that plants which had previouly grown in a high temperature, became diseased at : much smaller reduction of temperature than plasta previously accastomed to a comparatively low temperatare.

In condazting the experiments deacribed abova, irregularity in the appearance of the apots in different pocimen of the same specie, even when conducted under precisely nimilu conditions as to temperature, howed that mas other undetermined factor exercised an influmen, After repeated experiments this proved to bothe relative amount of moisture present in tha phath After a pseudo-bulb with it accompanying leal had been removed from a plant and allowed to remia for three days in a dry piace, it was foand imponible to produce spot by the method mentioned abone, whereas with a similar pecimen removed from the aame plant, and having the preado-balb placed in water at once, fully developed " pot" could be produced in four daya. Similar realta were obtained when experimente were made with entire plant; those copiously applied with water at the root, and grown in a high temperature, "ppotting" readily; whereas plants in a resting condition, scantily supplied with water and kept in a low temperature, usually renist all attempte to produce "apot" artificially.

It may be mentioned that, other condition being equal, "ppot" can be produced with the greatet certainty, and in the shortest amount of time, when the experiment is conducted in an atmosphero saturated with moisture. This agrees with the experience of gardeners, who state that "apot" in most prevalent in foggy weather.

Experimente show that "branissure," or browning of Vine-leaven, when the plants are grown in the open air, can be caused by the following combination of meteoric conditions. A copions deponition of dew and rapid fall of temperature, following heaty rain. Similar condition produce the disease in tho leaves of Tomatos, which has been deacribed by Abbey* as due to an organism named by him Plasmodiophora Tomati.

\section*{Summary,}

The Orchid diaease known an "apot" is of note parasitic origin; the initial cause being the presenco of minute drop of water on the surface of the leave at a time when the temperature is exceptionally low and the roots copioualy supplied with water.

The effect of the chill prodaced by the dropt of water under the above-mentioned conditions, is to cause plamolynis of the cells of the leaf underlying the drops : this is followed by the precipitation of tannin and other sabstances, and eventailly the complete disintegration of the celle.
"Spot" in the broadeat sense of the term, whicis would include the effect of exceptional moteoric conditions on the living parth of plants, more eapecially the leaves, when growing in a state of nature, it, in the case of cultivated Orchid, manily, il not entirely, caused by the three following conditiont 1, too high a temperature; 2, too much water, and not anfficient air in contact with the roots; 3 , watering or spraying with a falling instead of a rivich temperature. George Massee, \(F_{0} L_{0} ._{\text {., }}\) a princip Asistant, Royal Herbarium, Kew, in "Amnaid by Botany," October. [The original is accompanied by a coloured plate showing the microncopical changel referred to.-ED ]

LELIO - CATTLEYA \(\times\) CLONIA
 NERI \(\begin{gathered}\text {, C. WARSCEWICZII (GIGAS) }) \text { ). } \\ \text {. }\end{gathered}\)
OUR illuatration (fig. 74, p. 421) representi Jualio Cattleya \(\times\) Clonia superba, one of the finest hybrida of the eason, and which was exbibited by the

The "drooping" disease in Tomatos. Jow ha, Hort, gee, on Hol Ixx. P. 350 (A pril 95, 1895).
raisers, Mesars. Jus. Veitch \& Sod, Royal Extotic Narsery, King's Risd, Chelses, at the meeting of the Orchid Committee of the Royel Horticultaral Society held at Chiswick on September 5, when it was awarded a First-clan Certificate. The eepals and petals are of a noft rosy-lilac, with an indecribably beartifal tracery of bright purple lines. The labellum is of a glowing magenta-purple bue, the outside of the side lober lilac, with purple veining.
years naturalised in Maritius, where it was introduced from South America in 1790, and where it took possession of wate laads to sach an extent an to lay the foundation of a considerable fibre industry, which was atarted in Maritius about twenty yeare ago, and hat grown considerably aince. It is also cultivated in India and Ceylon. An intereating acconnt of this industry in Marritios wan published in the Kow Bulletin for 1890. p. 98.
apines. The apecien (this identical plant, no doabt) firt flowered at \(\mathrm{K}_{0}\) ( in the \(\mathrm{S}_{\mathrm{a}}\) ccalent-house in 1860 and as the plant does nob flower till it ham attained considerable size, the specimen under notice is probably half a centary old.

Cereus triangularis.
There were no fewer than thirty-dix magnificent flowers expanded one morning this week upon a plant of this night flowering Cactus in the Saccaleat-


Fig. 74.-lelio-cattleta clonia suprrba: rosy lilac. lip pubrle.

\section*{KEW NOTES.}

Furcega atcantra.-This plant may now ba neen in flower in the Sacculent-house at \(\mathrm{K}_{\theta \text { w }}\), or rather outside it, the apike having pushed up through the roof to a height of 25 feet. The plant, which has ucarcely any atem, conaiat of a large rosette of about aixty leaven, which are about 5 feet long and 6 inches broad, spinelens, bright green, and is a atriking object even when out of flower. The spike beare numerons branches of whitish star-shaped flowers, 2 inches acrose, and drooping. The plant will, of course, periah as the result of flowering. The lat time this apecies flowered at Kew was in 1874. This is one of the most important of fibre-sielding plants. It it klona commercially as the Maritio Hemp-plant or Green Aloce (Alcös vert), having been many

Ptrcatrnia terrcuinea.
There is a large example of this, the largeat of all the Pitcairniae, in the Temperate-house at Kew, where the comparatively cool temperature appears to suit it, the head of leaves being fally eight foet through, and perfectis healthy. This year the number of flower-ncapes it has produced is larger than usual-they are 6 feet long, branched, clothed all over with s dense ruat-like down; the flowers, which are 4 inchen long, are at firat of a pale steelblue colour, afterwards changing to white. According to Mr. Baker, this apecies attains to a height of 12 feet, with antem as thick as man's arm. The Kow plant has a atem 6 inchen in diametor, and about a dozen brancher or rosettes of leaves; these are about a yard long and 2 inchen wide, shining green above, whitish beneath, the margine armed with stout
house at Kew. The bright weather we have experienced this year has given us more flowers than unual in the Cactus-house, and if we could be certain of auch weather evary year Cacti would soon find general favour. C. triangularis is one of the oldeat of cultirated Cacti, a plant of it being recorded in the Hampton Court garden in 1690. The utems are stouter than those of mont of the night-flowering scandent apecies, diatinctly trigonous, and the flowers are a foot acrow, the narrow reflexed sepale coloured greenish-jellow, and the lanceolate petal milkwhite with a large cluster of bright yellow atamens flling the whole cup. The Kew plant is trained along the rafters of an unthaded house of intermediate temperature, but it would be happier if trained againat a wall to which its aerial roota might cling.

Cattleya elongata (C. Alexandere),
This is again in flower at Kew , and again falls short of what we were led to expect when it was first introdused. It has an erect scape 1 foot loag, bearing three dowern, each haring a pedicel 2 inchea long, and measuring 2 inches across the regments. The colour of the sepals and petals is a coppery brown, with a lash of rose about the tips, the lip being deep rose, above which the white top of the column shows conspicaonaly. In a broad sense, I ohould say this is a form of C. gattata, although for garden parposes it requires to be distiogniahed on account of the length of the pedicels, the waviness of the petale, and the peculiar colour of the sepals and petals. It grows well when treated as at tropical Orchid. The name preferred here was given to this plant io 1877 by M. Rodrigues [Orchid., Nov. 1, 72 , Ex Indice Kewensi], fifteen yeara before it was named C. Alexandm, by its introdacer, M. Linden.

\section*{Stanhorea Haselomiana.}

We have had this plant in calcivation three years, thanke to an importation of it by M. Linden, although is wat described by Reichenbach forty years ago. It is one of the handsemeat and largestflowered of the many upecies now known, and it is as easily managed as auy of them. The Kemplant is now in flower, filling the warm Orchid hoase with a delicious fragrance, and delighting visitors with its extraordinary 10 m and delicate colours. Before the segments curled beck each flower was fally 6 inches acroas, and colcured pale creamy.yellow, with a suapicion of apricot in it, the whole being dotted over with irregular ring-like blotches of lilacpurple. In stracture the flower is not anlike S . Wardi, from which, however, it differs in baving the menochil, or middle portion of the lip, being anazaally long, as well a in being mach larger, and different in colour. To those who caltivate this beautiful genus I would recommend S. Hatelowians as a plant worth procaring. A figure of it bas been prepared for the Botanical Magazine. Mr. Rolfe thinks S. Moliana, figured in Lindenia, wil., vo 333, is probably the same apecien. W.W., Kevo.

\section*{Florists Flowers.}

FINISHing the bloons of chrisanTHEMUUS,
If blooms of the finest exibition quality are to result, the finishing processes must be closely attendd d to, or the ten montha' labour and anxiety will be thrown away. If anitable accommodation existe this last phase of calture is quite simple, but not so if the hoases are unfitted lor the proper development of the fowers in the month or six weeks previous to their opening. The worst kind of house is one that is lofty and lacking in light. Sach houses are asually much too moist, caneing injury to the petals and lengthening of the flower-stalk, with consequent weakness long before the blooms are fally developed. In this kind of house the condition are sach that the bads do not awell astisfactorily. Sometmes a seaton's labour is thrown away by a single act of carelesiners on the part of the gardener or his arsistants, or by want of knowledge as to the requirements of the plants at that time.
Alter the Chryeanthemuma are housed and the colour of the florets is visible, developing bigins. It whould be remembered that buta which have became deformed ever so little cannot becump perfect flowers, and it is better to remove thrm and thos relieve the plant. The blooms that remain will be all the better if the energies of the plant are spent apon two bloom rather than three, which is the usual nauber allowed to each plant.
It is seldom that a house can be devoted entirely to Chryeanthemume, although it is beat if it cas be managed. A span-roofed greenhouse afford good aceoromodation for the plante in the final atage of growth; and in such a howe the tints of the blooms ought to be of greas excellence, owing to the aboundant light and air enjoyed-and it is apon these two points that so much depends in the finishing of the
blooms. Generally, Peach-house blooms. Generally, Pesch-housee or vinerien, after
the frait is gathered, are utilised for Chy yanathemama
and here also the plante obtain enfficient light aud air; moreover, the foliage in the case of the Vines useful as ebade for the 目owers. The Vine leaves mant not be left too thickly on the rods, or epinding will occur. Air must be afforded day aud night till the bloom are generally expasding, when some reduction in the amonnt of air admitted may take place; an at that atage I objecs to a direct carrent passing over the plants in such a manner as to cause a draught, the more eapecially when-as is sometimes the case-the house faces north or east. If the weather is cold, wet, or foggr, use slight artificial beat so as to ensure buoyancy. The air should be admitted freely at the frort, and ame at the trp of the house. Sbade of gome kind is alpags cecasary while the blonms are expanuinis to and the shade should be of a temporary character becanse of the importance of light in dall weather. The plants eheald not lack maurial asaistance, although aome provers moud have is buidre that directly the colour of the forety focures wiztho manuring chou!d c+ase. This is a fallacious practice, the plant requiring feeding as moch then as at any time. My practice is to feed the plant until the
bloomsarethres-patsexpanded, and then torffod no bloomsare thres-partsexpanded, and thentorffind
more. The kind of manare should be varied, and affording atrong doses of any one kind is bad for them-weak and offen is a much moro prudent practice; besider, the same kind of stimulant always afforded, cerses to have sug goud effect. A return to pare water only for two or three watering is conducive to succesp, especiaily where animal manure have been employed, the char water acting at a parifier. It is allowed to be more difficult to fanish an incurved tban a Japanese bloom. If the latter are large in diameter and depth, the petall proportionate in breadth, and the colour rich and clear, and the florets evenly diaposed so as to form a perfectly symmetrical flower, everything necenary in a Japanese bloom is attained. Bat in the incurveds we must not only obtain size, bat also depth, and what is perhap more important, molidity of petal; and bloums which lact any one of these requirementa are not perfect. If ina dinimatar of a bloom of any of the "Queen of Fongland" sertion is 5 inches, and the depth 2 isches, the bloom is not properly developed.

I have, perhape, entered rather tco fullo into the ree quirements of the blonm, and enpecially those belonging to the incurved aection; but havingeen so many mistake made by exhibitora in igooring esential points, I am impresed with the idea that beginner cannos have the matter placed bofore them too plainly. There is too much haviering niter sibo in incusved flowers, add beginners sometimes have the idea that early crown bade give the largest bloomeand so they will in diameter, perhaps; but if they are "taken" before the middle of Auguat, the blooms are sare to be rongh as well a "thin," and quite uselesm in competition against flowers that were not taken until nomewhere near the 25 th of the same month, or the following wetk. Earlier-formed bude develop florets that are more inclined to reflex tban incorve, when this tendency is common. In thesecarem the cprning blooms ahould be turned upaide down by removing the branches from the npristht stake, and making the branches equally aafe by nome othar meanm. In the case of vineries or Peach-honses being pmployed, I qually tio the branchea to the wires, ard h) fot the blons downotris. In this maroay the thate incurve much bettar than they will du when growing upright. Jaily attelition ia rocnequy in removiog mis-bhapen peia!s, for all the berming in the world will not make all the petale grow towarde the centre. If thege deforman putas ane Thioutd, these of parfect abapa will that their flaces, and grow evenly, making a perfect blorin. By following the detaile here given, the work of Areang the hiomg is much facilitate di when they are cut and ready for the exhibition atand.

Japanese bloome can be much improved whilet opening by the ame meare. Sometimes, the planta having received a check at the roots in aome way or other, development in the flower is retarced isstead
of unfolding evenly and straight, the tips of the florets curl inwards, which is a deformity. A litus attention paid to relieving such by the aid of tho twetars, is time we!! wiont The development of the blosing way he wech retarded if insect peato of not well looked after. Kinnes. are very tronble. some, being partial to the succulent petale, sod they will climb aimost any height to get at them, Trap made of Eimboocine or Bean-atalke 1 foot long thrust in amongat the leaves, atill conatitute the mon tficacious manrar of checking their progren and depredasionm. E. Molyneux.

ORCHIDS IN THEIR HOME. We diserobark, say at Savanilla U.S. of Colombin, at the mou!h of the mighty Rio Magdalens, Tae rirer is navigable for a diatance of 600 miln, and under favourable coaditions, the rogage ill take frone utus totern days, whereas under mend circuaztances is might take fifteen to twajn The lown parts in ROD witior mach of interest the
 swaps. Indeed. ing atertcims are iundatd, bot
 appear. Wiost of the heabitsistons are built of Bumboo
 liamboo poles speured in the ground, with a her lages at (Cous batyracea tied on for roof and mallh 'Iite prircipal fuoda are corn, rice, Banana, ad luccas. 'Ine iatter are the tabers of Manihy utilissinas (known in commerce as Tapioca).
The vegetation on the Lower Magdalena is somewhat monotonous, bat, gradaally ascending, the number of anpcias increapes. The acenery in mas places is magnifcent; imagine the river bantu covered with trees or shrabs of all descriptiont, festooned with Vines and ciimbers down to the waterl edge, forming a dense mass, here sud there brightend by the presence of lovely flowera and bearaifull. colonred birds. Bahind this extends a beartitiol landscape dotted with Palme, and in the bactground the blue chains of the Cordilleras, towering one above the other. The collector will feel not a litite ? inappociatmi hy the almost total abrence of Orchid difuge the riyner, if it be his first trip.
After the terminus of the Lower Magdalens in bached a ahort ralroad takes the traveller to Honds. Hara the river forme sume mighty rapid, Which rivide the Magdatens into sectione, the Upper and the Lower. From Honda the only mean of tranaportation left the traveller is on male ot horseback. Arter three or four daya' hard riding os a stauborn mule over bot plaing, wading riverh, climbing and descending hills, Ibagas is reacheph The latter used to be, and still is, to a certail extent, the centre for Cattleya Trianæi. Howera, at present the plants are becoming very rearco there. Ebasue in situated at the foot of the Tolims, a nowy peak, forming part of the central monntail chain of Colombia, and at an elevation of 4000 fet above sea-level.

\section*{Where they Grow.}

One of the munt important items to the collector is the fiading of a cood district, not ouly mberf plants are abundant, bat also where a good arnin of varieties may be obtained. This involvea a greal many hardships and inconveniences, bat it certainly payn, though a gond deal of money and time han to to npent before obtaining reau! platita are mentiful and infpeasily procured, the col

 menciog to gather the plante, a good ceatral plad must, bu wolected a head quarters-a place nituak inte if posible, in the district itsell, or in the immediat catseirts, or, is short, in some place from wati there is an exis pormitting the collector to tranport the plant on mishback. By head-quarters 1 ion io a fex trivciug or ten's pitched for the cecsion maten Which to storen an! diy the plants and mase cam \&:.Wheutagis o. rinctwa are resty, men aro and out in differens dipecicing in parties of that holl three, after prefinaily b-ing ohom what nad to collect. They carry provisionn to lat them in the times for two weeks. They bury themelver in why monntaing, ready to deatroy angthing in thair
baraing en Orchid. Whenever a plant is detected, the tree it cat down and the plant torn off from the trunk or the branches. The plants are packed in attring bage, and carried down to the ranch. The vegetation io most exaberant in the Cordillera monatains, with their apara and hills ; rivers and atreamo, forming valleys and gullies, hollows and precipices imposible to dectribe or imitate ; and in thees secluyed localities it is where the Orchids luxariate, and where they dieplay their magnificent Howera to the best adrantage, inviting the collector to come and pick them, yet oftentimea defying every sttempt to capture them. If the collector is a lover of plants, he will here ree Nature in all its marvellons benaty. For a moment or two he is likely to forget himeelf, forget all hardshipt and worries, while a feeling of enthatiasm ateals over him, leaving an impretion which be will not moon forget. J. E: Lager, in " American Gardening。"
(To be continued.

\section*{pea Trials in Lincolnshire.}

Whrn at Boston about the middle of Jaly, I had an opportanity of seeing a large and very racceasful trial of Peas in the seed-trial grounds of Mearra. W. W. Johnson \& Soas, reed merchants of that town. Mr, Alfred Johnson had epared no pains in getting together all the new varieties he could obtain; the seeds of which were sown in good groand. Every trial sample was ataked, and all that good cultivation could do was done to ensare a complete test. To add to the success of the trial, the weather had proved highly favourable. For while the sonthern midlande, London, and districts stretcoing to the sea had felt the drought everely, mott refreshing rain-nhowers had visited the B aston dintrict; and while the patcare in the South was brown, in this portion of Liacolnshire it was living green. Peas had, therefore, done well, they had made a healthy clean growth, and developed fine well-filled pods.
Taking the earlieat varieties, William Harat and Eaglish Wonder (Barbary) led the way. The earlineas, dwarfness, cropping qualitien, and good character of William Harat are well known; not so in the case of English Wonder, a dwarf early wrinkled variety, with dark green pode which fll well, the pods being a little pointed. I have heard this Pea so well spoken of in differeat parts of the country, that I am gratified to have my own high opinion of it confirmed ; it is an excellent Pea for small gardenn. Satton's A1, an early indented variety, will be found very serviceable to those who prefer an early crop of the Ringleader type. Bat a coming early Peawill be found in Satton' Szedling, a dwarf, firat early, wrinkled variety, growing atrongly in the fertile Lincolnubire loam, and not exceeding a foot in height, the pods pale green in colour, a little pointed, and well filled with fine Pers. As it was sent out only in the present year, it may not be widely known, bat visitors to the Temple Show had an opportanity of seeing bearing plants of this Pea in pots. Satton's Favourite Marrowfat, new in the present year, was doing well also, \& wrinkled marrow, prodacing palecoloured, broad quarestipped pode, well filled, the plants bearing freely, height 20 inches or so. Chelrea Gom was here also, closely resembling William Harat, from which it is a sapposed selection, but with pods more cimitar-shaped. Dainy, growing here to the height of 2 feet, is an excellent garden Pea to prodace an early crop, it beara large fall-pointed pode, and it in an excellent cropper, and valuable for mall garden. Witham Wonder, appeared to be a curved-podded variety of the Eoglish Wonder. Stanley (Horsford) is a promiaing Pea, a little taller in growth than Satton's Seedling, producing large full-curved whitioh pods, and an excellent cropper; like the preceding, a very aneful variety for amall gardens. Plentiful has all the character of a green form of Day's Sunrise, growing to a height of \(2 \frac{1}{2}\) feet, coming in after William lat, a rare cropper, prodacing atraight well-filled pods, to all appearance a very prolific and bardy Pea for market gardens. Gradua, aonounced an a large-podded firat early wrinkled variety, prodaces fine-pointed pods of the character
of those of Dake of Albany, bat the work of selecticu is by no meane complete, jadging from what was seen at Boton. Bat with rigid selecting, a very gnod ispa of early Pea is likely to be produced ; in beight it is about 2 feet. May Queen, ent out by Menne. Sutton \& Sons as firat early wrinkled variety, as early as American Wonder, is one of the earlieat in flowering and podding, and produce a fairly good crop of medium-sizad pale pods. Here it was about 18 inches in height; it in an early variety well worthy a trial. A green form of Earliest of All doe well in the sandy soil of Lincolnshire, and is considered valuable for markat purposes. Saston's Bountiful is a fine Pea, bearing pode somewbat curved as the pointe; it is in the way of Gladiator, but moch earlier. Satton's A 1 Marrowfat, which followa their May Queen in bearing, is a first-class Pea, having wellfilled poda of good size; it should be noted as a valuable garden variety, at Boston it was from 2at to is feet in height. Sutton' Esn press of India is like the forpgoing, \& valaable garden Pea, it has large wellfilled pods of the Dake of Albany type, somewhat pointed, a variety which sppears to be becoming very popular in the country, height \(3 \frac{1}{2}\) feet; it comes into bearing directly after Whiam 1 et. Oracle (Laxton), vent out as a main crop variety, producen very fine green poll and foliage; the dry reed a blue ruund, somewhat wrinkled; a econd early of a fine robut growth-the pods containing on an average ten Peal. This a variety that appears to suit Lincolquire well, and it growa to a height of \(2 \frac{1}{2}\) feet. Gludiator may be dencribed an in the way of Telegraph, but earlier, pods large and curved, \(2 \frac{1}{2}\) feet. The foregoing mas be aid to form the nection of first and second early varieties.
Among the main crop Peas, Laxton's Alderman mut find a place; it grow to the height of 5 feet, and produces handaome large green pode, "ike those of Dake of Albany; and whether employed for garden or exhibition parposes, will be greatly esteemed.

Eckford's Critic, growe to about the ame height, and produces very fine blunt tipped pods, and as seen here well deserved the three merks given to it in the Cbiswick trials. Satton's Royal Jabilee is a very fine late Pea, probably one of the lateat, bearing large acimitar-hhaped pods, 3 feet in height, very robut in growth. It may be deacribed as a late Windsor Caste-its appeara to be a Pea witha great future before it. Dase of Yurk has appearance of being a selection from Dake of Albany, but earlier, and likely to be very usefal. Censor (Eakford), is a Pea growing to the beight of \(2 \frac{1}{2} \mathrm{f}\) et, having fine fall dark green pode, slightly incarved, certainly a very fine garden variety. Yorkshire Hero was also here represented by a very fine atock, and still hold its own despite rivalry. Sharpe's Q deen is a very robast grower, about 3 feet in height, pode large, green, slightly curved, a great cropper of a fine quality; apparently of somewhas delicate constitation, as it is subject to mildez. Su:ton's Perfection Marrowfat appears to resemble the foregoing in many respects, but to all appearaica a more robust grower. President Garfild is a Pea said to be difficult to keep trae; is is of the same style and quality as Priace of Wales, but the saed is larger and more wrinkled. Prince of Wales in an old Pea of good quality, bus needs improving by mean of rigid selection; it is in considerable demand in some parts of the country. Conaummate (Eckford), is very like Sharps'e Queen in height and general appearance. Satiefaction, in height \(2 \frac{1}{2}\) to 3 feet, bars very fine and well filled pointed podr, and is said to be of excellent quality. Dr. Maclead, a fine old variety in considerable demand in the West of Eogland, was also here in excellent character; and Veitch's Perfection, atill a fine old garden Pea, was represented by a very fine true atock which crops 'wonderfully well, and which jet remaine one the most nsefal garden Peat. Invincible (Jobnson), is a blue wrinkled variety, 3 各 feet in height, bearing freely, very fioe, alightly curved pode, the quality high. Autocrat is a mont valuable late Pea, with medium-sized dark well-flled pods; a dwarf No Pla Ultra, height 3 feet-it is ex-
cellent for elasing at late exbibitione. Satton'a 11 arar Mammoth Marrowfer is a very fine garden lea, producing immenee alightly-cusped pode, extra fize \(f: r\) tyitition, hight is feet. Sutton' Conquer.r burs large white moin which curve back a litime uth painte, and the puls are aptu to be a litte indented; a very fiae variety, in height 3 feeta new I'ea of the preseut year. Suiton' Late \(Q\) zeen in also new of the present year, pod the shape of that of Ne Pus Uitra, a little paler in colour, a robust grower ard free cropper, and \(a\) fine garden variety, 3 feet. A Pea of unaaual excelleace in foand in Jubnon's Uaivalled, a daarf and prolific wrinkled Marrow, nomewhat of the character of Telephone, with large bright green pods, averaging ten Pean in a pod; height 4 feet-a fine and robust garden variety. A variety named George Celland in a robust grower, with dark foliage, lorg deep green pointed pods of the Queen type, very promiaing; the planta were from of late sown ample introcanced from Araerica. Satton' Windsor Castle appears lita a relection made from their Royal Jabilee on accornt of it lateness ; of robust growth, free croppiog, large pointed, well-filled pods, very prolific, an excellent garden variety, height \(3 \frac{1}{2}\) feet.
Of the taller section, Hzkford's Wpicard is an illutration, growing to the heisth of 6 feet, large, alightly curved Telephone pods, and a great cropper. Boston Hero, also 6 feet, is said to be the result of a croun between Dake of Albany and John Ball, and in Lincolnshire it requires to be grown in a rather dry, hallow soil; in a generous one, it gee very much to haulm-it is a very free bearer. Wem (Eickford) is a very tall grower in Lincolnuhire, producing very large whitioh pod of excellent quality in the weds; it is a free cropper. Memorial (Eck. ford) is a deep green wrinkled Marrow, growing quite tall, with very long, llightly-pointed pode, promining to be very fine for extibition.

Ia the next group appeared Telegraph, represented by a very fine stock, a variety in great demand in Yorkebire; a Leeds seedeman informed me that he sold more of this than of any other variety. Goiiath appears to be a round-needed form of Telephone, and jet diztinct from Telegrapb. Harrison's Giory and Bedmen's Imperial represent two varieties largely grown for cooking purposes in winter; both were fully podded. Day's Commander appears to be King of the Marrows; Ambasador, a pointedpodded Ne Plus Ultra; Goldander, a very fine atceck of Ne Plus Ultra, as it is exactly like it. Dake of Albany, ene of the Peas most generally grown, was very fine here.
I had opportanities of seeing nome of thena Peas growing in large breadus in open fields, where, they were, of course, not staked. Here Satton's Bountifal was very fine, apparently ready to gather four or five day after Earlient of All: a fiae market variety. Eoglish Wonder wan reaily aperb in the open, atearly as any variety, green in foliage and pod-literally a mase of well filled pods. So prolific is it, that I was informed a short time ago by Mr. J. Perkins, of Northampton, that he had harvested \(5 \frac{1}{3}\) buabela of seed from 1 gallon of seed - a return of over 44 fold. Saiton's Early Marrowfat is alsu a very fine market Pea, bearing heavily. Sutton's Dwarf Mammoth Marrowfat may be regarded an an improvement of Stratagem ; on an expenaive plantation the individuala were found to be bearing large, well-flled pods in pairs. Windsor Castie is mieo a fine field Pea; the ame may be said of Invincible. Market gardesers whould keep an eye on both of thene. Satton'a Exhibition Marrowfat ander field culture prodace large curved pods, and is a great cropper-a fine variety for late exhibitions ; height, 3 f feet. Dake of York (Cooper, Taber \& Co) aeemed better under field calture than when taked; it wa producing a wonderfal crop of fine pods. Saperabundent (Fcckford) wat very fine under field culture; it is a flat-podded variety, and very prolific. Satton's Magnam Bonum Marrowfat, which grows to a height of 3 feet, is a prand cropper, producing tery fine pale-green pode, alightly curved. (iradus (Harrison \& Sont) was in the geld as early en lislitat of All; it bearepointed
pods, is a great cropper, and excellent for field caltare. Satton's Royal Jubilee in a vigorons grower and heavy cropper under field culture. Critic and Centor were also very good.

That it may be fairly aaid we have too many Peas, there can be no doubt. Menme. Harst \& Sons' catalogue for the present year contains 122 names, and of these a few may be accepted as synonyms ; perbaps the growth in numbers is not very remarkable after all, for their catalogue issued in 1852 contained forty-nine varietien. It is perhaps well to have an ample choice to meet individual tastea, and adapted to certain localities ; still there is an amount of bewilderment in the contemplation of momany, and the differences between nome are only very alight. Perhaps the old adage, that it is possible to have too much of a good thing, may be accepted in the cane of Peas; and it does appear an if the list is likely to be extended rather than reduced. Certain it is, that no one who valuen Pear an a cooked vegetable can fail to have his taste gratified among no many claimanta to his farour. R.D.

\section*{BERLIN.}

Cypripeditum Charlesworthii in one of the beat Cypripediums of ita class, as was shown here at the latt meeting of the Horticaltural Society, by Mr. Lackner, of Steglitz, near Berlin. Young planta imported in 1894 were beset thickly with flowers; a good many of them bore two flowers upon one atalk. There were two forms, one with the upper repal folded backwarda, thas resembling C. Spicerinnum ; the other one with this petal quite flat. In the large collection exbibited there were differently coloured forms: the mont interesting one, an imported plant of this year, had a dark red petal. Vanda Kimballisa is also a fine plant when in flower. Mr. Lackner exhibited more than 100 plante, all flowering at once-indeed, a fairy-like picture. The cat flowers of this, as well as of the Cypripedium, keep fresh in water for over three weeks, whilet they last upon the plant for from two to three month.
A very fine new Dahlia of the Jaarezi group, the colour of "La Reine Rose," won a First-class Certificate from the Horticultaral Society. The grower was Mr. Schwiglewiki, of Carow, near Berlin.
Helianthus rigidu [?] is agiant amongat Sunflowers. A flower-stalk of 4 mètres 35 centimètres (about 14 feet), was exhibited at the last meeting.
A large International Horticaltaral Exhibition will be held at Berlin in the epring of 1897, when the Horticultaral Society will celebrate its seventy-fifth birthday. The Society hat granted 50,000 marks for medala, \&c. A new feature at this exhibition will be a section for amateura. It is proposed that only auch amateure ae grow their plants without any help from a gardener thall be allowed to exhibit in this wection. Another clause ran thas, that only such plants thall obtain a prize as have been cultivated by the exhibitor for at least one year. Of late yeara it has been observed more and more here, that the highent prizem are taken not by much gardeners an coltivate the beat plante, bat by those who have the most money, and can therefore buy up the most and beat plants. The amateur nection of the Horticultaral Society think that this is wrong, and therefore has framed the above clanse, which will bring the prizes within the reach of the best growern.

\section*{Palats in Livine-Rooms.}

Some good Palma for living-rooms are the follow. ing, jadging by those in my collection, Elais gaineentic, the Went African oil Palm; it grows thus very well, almont better than in a nurwery. Pinanga javanica: this highly interenting Palm is somewhat difficalt to root. I potted my plant in a large pot, containing samodnut, wo that the earth maintained an more equable temperature ; since then
the pleat has grown rapidly the plant has grown rapidly. The lesvere sare reddish
when young, and aterwarder when young, and afterwards become bright green.
Chamesodores corallina neede time before it can
accommodate itelf to the dry air of a living-room, as the older leaves are apt to turn black; but once acclimatised, it growa rapidly. A very fine Palm, which is quite hardy, is Martinezia caryotifolia; it grow very well. One of the most rapid growern is Wallichia caryotoidea, of which I have young planta about a year old and a foot high; they have from five to nix leaves. My Phoeniz humilis is a mont delicate plant; it is like Cocon plamona in habit, but of as gracefal form as Cocon Wedelliana. This latter gave me mach trouble at firat, until I learned that the plant disliked mach water. It became yellow when I watered it too much; it is now turning darkgreen, since it has received aa little water an possible. The Cocos Datil, on the contrary, cannot get water enough; indeed, it is a plant which grows best in a swamp. Here it in a short time attains immense dimennions; my specimen, one and a half year old, in sbout 1 métre ( 3 feet) high. A somewhat more difficult plant to grow is Areca rabra. I had two large apecimens, one more than 6 feet high. Both died without \(m y\) being able to tell why. Now I am experimenting with a young plant about a foot high; this is doing very well. A very hardy and fine Palm in Hyophorbe Verschaffeltii. Very variable plants are the Chamærops humilis. I have three large specimens, but all three are so different one from the other, that they might well belong to three distinct apecies. My collection of Palms, containing some thirty species, and aboat sixty or seventy speciment, gives me much pleasure, as I grow the plants from weed. The plants are accustomed from the first to the dry air of a room, and many a specien, cultivated in the hot house in nurteries, grown well in my room: without any other attention than a protecting pot containing raw-dust-for, as I have found, the roote are the weakent organs of the Palms.

Ageratum mexicanam flore roseo: this longdenired variety, with pure rone-coloured flowert, was exhibited by F. C. Schmidt at Erfurt; the new variety will certainly become popalar in gardens. Paeraria Thanbergiana is a leguminous climber from Japan; its habit resembles a giant Bean, and in foliage also. The flowers, crimson-red, are set on long, straight spikes, which appsar on the outmost apex of the plant. The plant, is perennial, quite hardy here at Berlin. Its greateat meritiry, that it grow rapidly; a two-year-old plant in the nursery of Mr. Späth, at Rixdorf, near Berlin, who imported the seeds from Japan, measares now about 12 mètres (about 36 feet). Amaryllia Belladona does not thrive when grown in pote. A very fine plant, with over a dozen flowers, was exhibited by the gardener of the famous Wörlitz Park, near Dessan, at the last meeting of the Horticultural Society at Brrlin. It is hardy at Würlitz, where it grows best in warm, sunny borders near walls; here at Berlin it is necessary to protect the plant during the winter. Paulownia imperialis, which here muat be protected during the winter each year, and which, notwithatanding, often dies, is best grown as an undershrab. If the plant is cat down yearly in the autumn to a foot high, and then protected, it sends up in the apring a great many hoots, the tallest of which reach a height of more than 4 mèbres ( 13 feet). Treated than, the plants form bushes of unrivalled beauty. U. \(D_{\text {. }}\)

\section*{Orghid Notes and Gleaning8.}

\section*{Epidendrum Godserfianum.}

This is perhape the most handsome of ita section, and well away from the merely botanical clase of Epidendrum, its tall branched apiles of large yellowground coloured flowert, veined with parplith-brown, and with ample white lip veined with bright parple, making it a really handsome arecies. As it flowers endure for a very long period of time, it is a very deairable plant. It was imported by Meurra. F. Sander \& Co., of St. Albans, with the true Cattleya labiata, and named in honour of the manager of the Sto Albana Orehid nurwery.
A very fine form of it in flowering with C. J.

Lacas, Esq, Warnham Court, Horhham (gry
Dancan). Cymbidiom ciaanteum,
Although one of the earlient-known speciee, wh one which has been represented in collection thy over aixty years, this fine apecies has becomon int although it has much graca and beants. Amp fine variety, having long aprays of fowers, is oflo yellowish, closely atriped with parple, and mit bright yellow lip spotted at the bate with port and at the apez with brownish-red, is in fomen Sunningdale Park gardenn. The plant in ond a small collection brought by Mr. Joiceg, jum, ham the Himalayas.

Sobralia Lindeni.
Under thir name a few fresh impoted and Sobralia were sold by Messra. Linden, al Bram
 on Saptember 12, 1893. A flower frua memine then parchased is kindly forwarded byc.a. Linem Esq, Warnham Court, Horsham, and, u Mi, Lam saya, it certainly a most charming apeia, The flower is large, the repals and petalis of s diate blum-white, and the lip is also bluab-white on we bassl half, but the front portion is of a rimem crimson-purple, shading off into a nearly blum tif toward the margin. This finely-coloured muin traverned by well-defined branching white bim which make it a very diatinct feature. Ahs tance the flower revembles a light form of Culm Laddemanniana.

\section*{THE PUBLIC PARK AT DAB. LINGTON.}

Most large towns are now in possention of pobis parke and flower-gardens, but few possen one thit has so many charming features as Darlington in it situation and arroundings. It is distant bat lifl from the centre of this fine old town, which, anm other things, is celebrated for its connection nith George Ssephenson, of railway fame, and consiaini the railway atation the redoubtable No. 1 engine tender by which the firct railway journey wa med Darlington was honoured thin year by a vinit of th Royal Agricultaral Ssciety of Eagland, and th many visitors to the town which this visit occariow were drawn to the pablic park, whose axcalls keeping and numerous fiae features came in for \(m\) deserved ealogy. The approach to the chief eataw to the park on the town side in broad, wellb by road, bounded on the right by the river Stenn the public gymaaniam; on the left, by a rond villas, having well-kept front gardens. The put together with the lake, has an area of 46 ampu entrance is made to the park through ornawid gates of iron, having lodges at the siden, and show road with an avenue of promising Lime.freas were planted fifteen years ago when the part wh onclosed by the corporation of the town. Sinu tw time, much work in laying-out, tree-plantiad otherwise improving the park, has been carried by Mr. James Morrison, the superintendent.

The natural nadulation of the ground 10 itself well to the methods of planting and badit out which are adopted, there being 10 diabli geometrical desiga of flower beds, but nuat 1 fresh and novel takes the eje at every tans, pavilion and aperintendent's house are bape blot situated on the terrace; on the gran avilion, the terrace and in front of the pariand bid five designe in carpet bedding; the cours of the five being a large circle, carefully 30 to represent the arms of naked of Darliagton, surmounted by \(N\), 1 andeth holding a pickaxe; below this the No. and with two tracks, and the bales of wool, and head of a ball; on the quarter earroariantioni arm: the words "Invignis Bargi de "Fiores" is and below in the motto on a acroll, "Somentin dustria." The groundwork connista of are tomentona; the engine and bull's head tho out with the dark-leaved Ajaga reptans, the and woolpack with golden-leaved Prom that a bordering of a dark blue Lobelia arimul
bed which are on either aide of the borough arms, represent eight rayed atars, outlined with Echeveria glancs, the centre of one of them containing a representation of the royal crown, in Pyrethrum, on a groundwork of Herniaria glabra, the jewel being represented by crimson and blue fowers; the other bed is planted so as to represent the creat of the Prince of Wales, the feathers being worked out with Mesembryanthemam cordifolium variegatum and Pyrethram, and the motto, "Ich Dien," is ahown on a groundwork of dark green. The bed. at each end are circular, and are aurmounted by a crown ; in the centre of the circle are the lettert R. A. S. E., the monogram of the Royal Agriculcaltural Society of Fiagland. This is enclosed by a Garter, bearing the motto of the Society, "Practice with Science;" and below each bed, on a acroll, are the word. "Welcome to the Royal." TThe Darling-
edging of Cerastiam, and dotted with Dactylis glomerata. A bed of golden Pelargoniume, Harry Hieover, with a broad band of Viola Mulberry Qaeen, dotted over with Liliam auratum; a bed of mixed single-flowering tuberout Begonias, dotted with Hydrangea paniculata, was good. In another, silver and green-leaved Pelargoniame were planted together ; in another Love Lies Bleeding was intermixed with blue-flowered Lobelia and Dracæna indiviss.

As will be imagined by the reader, the talent of the superintendent in devising pleasing mistares of flower-beds is of no mean order, and I could very considerably lengthen \(m y\) list of combinations, did it appear desirable to do 10. The Pentstemon finda sbundant ase in the park, mixed with Violas and Mask, \&cc, Liliam longiforum var. Harrisii, Dahlias, Gladiolus, Ealalia gracillima, and Ficus elatica are


Fig. 75.-carrot, scarlet model.
ton people will not be long before they recogaise the incongruouness of ach decorations. Ed.].

On the terrace were some good examples of bedding, in which the blaze of scarlets, pink ard other colours was toned down by dot plants of a graceful character. Pelargoniams, at the tims of my visit, were in good bloom, better than I had seen them at places further south. Some fine bed connisted of blue and white Lobelias, with Harrimon's Mak as groundwork, the latter just bowing through the Lobelia, the bed being thinly dotted with small plants of Grevillea robusta. One good bed was planted with Weat Brighton Gem Pelargoniam and dark Heliotrope Garibaldi; another had Pelargoniam John Gibbons, dotted with Abutilon Thompsoni variegata. Other beds consisted of Henri Jacoby Pelargonium, with thin lines of the variegated Grass, Dactylis glomerata, planted diagonally across the beds. Some raiwed bede were edged with Echeveria secuinda glauca, aud planted with blue and white Lobelia and Love Lies Bleeding. Another bed had a flling of Weat Brighton Gem, and an
much employed, and the unaal clan of aubtropical plants lend grace and beauty of leat to the more sheltered parts of the ground. Roses are in excellent condition here, and although the plant were cat down to the anow-line by frot last winter, very few were lost, and they have since made vigorous growth and flowered well. Many of the best varietiea are to be found here, and the soil appears to be very waitable for the Rose, as well as for Gladiolus Brenchleyensir, the latter being planted early in the spring between the Rosen, so that a bright mase of colour is obtained in the beds when the Rower are past. Many of the apikes bad three and four branches. The herbaceons border occupies a good position between a large tennir-court and a bowling-green, and is 30 feet wide, and 200 feet long. The plants with which it is planted aeem very well chomen, and convisted chiefly of Preonies, Poppies, Delphininms, Phloxes and Helianthu:; Cactus and other varieties of Dahlias being planted amongat the perennials for affording an antumn display. In a emall arboretum near the band stand, are nice specimens of Conifers,
vizo, Abien concolor, Thojopsis dolabrata, Tuga canadensi, Capressus Lawsoniana variegata, \&e A large lake for akating and boating is supplied by water from the river Stearn.

The lske in furnished with several islets, grottos, and waterfall. The shrabi and trees with which the isles are planted consist of golden-leaved Elder and Willow, the latter having leavea of light green tint, and the whole contrasta well with the carrounding trees. Some old Willow trees of large size growing near the lake contribate greatly to the general good effect seen in this part of the park. For the amusement of the pablic, boats are placed in the lake, and bowling, croquet, and lawn-tennis ground have been laid out. Some usefal span-roofed houses stand in the garden, together with cold framer, and pite for the propagation of the great number of planta that are required for the bed and bordert. Spergula arvennis aurea, a mall yellow-foliage plant natable for carpet bedding, has been largely increased for use another aeanon, and a large mock of Viole Countean of Hopetoun is in course of preparation, B. W.

\section*{VEITCH'S SCARLET MODEL CARROT.}

This new variety of Early Horn Carrot, ahown in our illutration (6g. 75), belongs to the stump-rooted clase, of which Nantea and Carentan are good typea of late varieties. In this clase the root has an almont equal diameter at top as at bottom, and there is, therefore, less of the contral watery portion. The variety is well adapted for botbed and early out-ofdoors mowinge, coming quickly into use. When fallgrown it make an excellent exhibition apecimenroot, as was well observed at the vegetable show at Chiswick on September 5 last, in roots grown by Mesars. R. Veitch \& S on of Exeter.

\section*{Plant Notes.}

\section*{LYGODIUMS AS ROOF AND PILGIR PLANTS.}

Thnes plante are eapecially adapted for covering roofs and pillars in glasthouses. They are evergreen tove or warm-hoase plants, and in most cases the atems are better left antil they turn brown, but in the case of L. japonicum, it will be found best to train up freeh foliage each year, entirely removiog the old atems. The compost whould bs a rich one, as they are vigorons-rooting plenta, and when the aoil becomen filled with roots, they will be benefited by liberal applications of liquid-manare. The species best known, and most usefal in our gardens are L. japonicum, a native of the tropice of the Old World, and a very elegant light-growing plant, the lower fronds upon ite stems being barren and lens divided in the segment than are the upper and fertile ones. For covering the roof or a back wall, this is perhaps the best.
L. dichotomum is of a mach more robust habit, producing a profution of dark green foliage, the stems of which are much stronger, and last in good coadition for two or three yeary; this is a native of Tropical Asia. L. venustum, introduced about 1850 from the West Iadies, \&z., is a most deairable plant. The hardiest apecies is L. palmatam, native of the United States of Ameriea, a rather mall but usefal pot plant, with amall four to six-lobed palmate pinaules; the fertile pinnule are mach divided, and give the plant a diftinct appearance. Other species less often observed in gardens are L. pinnatifidum, L. articulatum, a New Zealand plant forming a good atage plant, and L. reticulatam from the Polynesian Isles. In some casen these plants will not take kindly to the division of their rhizomea for propagation, but remain atationary after the performance, but alticastely atart into growth. Where apores can be obtained (and they are freely produced apon ame apecies), they thould be utilised for their increse. \(R\). L. Harrow.

\section*{dunedin, streatham hill.}

The residence of N. Sherwood, Ezq., head of the well-known fim of Hurst \& Son, seed merchants of Houndsaitch, London, is a model of a pleasant retreat within easy diatance of the City, and around it the gardens are in keeping with the comfortable dwelling. Within their moderate limits something of every branch of horticalture is done in a creditable manner, the whole forming a done in a creditabering example of what may bo accomplished in the apsce usually allotted to the arbarban garden. Arjoining the houze is an ornamental octagonal structure, whose interior is converted into a beauticul sockery planted with Ferne, and over which a mine math. A pleating
runs into an ornamental batin beneath. feature in the rockery is that no crads imitation of nature is attempteà, such as one often sees in rockeries under glase, and which seems altogether out of place under a roof; but, rather is the rock of the atalactite cave imitated, and that, too, with happy offect. From the terrace outside the Fernery the eye takes in the smooth well-kept lawn, bounded on each hand by borders, still gay with flowers, and especially with the late-flowering annoals, which also make such a fine show among the Gladiolus in the garden at the end of the lawn; and through which rans an arched patb, clad with Roses and climbera, having fragrant flowern. Striking objacts on each side of the lawn are clump of Rododendrons, large Arancaria imbricata, Cedar of Lebanon, and other trees, all of which have been planted with a view to effect. The show of flowers in the open garden may now be quickly terminated at any time, and then the beauties of the stately treen and ornamental shrabs will become more visible.
O. chids of the nhowier apecies have for a conniderable time been grown at Danedin with suecens, to far an the cool-house speciel, which are most liked by Mr. Sherwood, are concerned, and the saccess is in a grest meavare due to the saitable house provided for them. The ground beneath the plant-stages not teken up by the rain-water tanks is planted with Ferns, foliage Bogoniaz, \&cu, the foliage reaching up to the ataping which runs on each side, and over the edge of which depend Isolepis gracilip, mingled with Maidenhair Ferns. Sach an arrangement is not only beneficial to the plants, bat makes a pretty feature in the house. The bulk of the plant consist of Odontoglossum crispum, which, jadging by their atout, plamp pseado-bulbs and the many robast flower spikef, show the correctnens of the treatment afforded by Mr. Jones, the gardener. Here, too, the Maedevallias, Oncidium macranthum, Odontoglonum Edwardi, and others of that clans thrive, and are at the present time sending ap flowerapikes; and a row of Sophronitis grandiflora represents that pretty cool-house plant at its beat.
At one end of the house are several atrong plants of Coelogyne corragata, which thrive here, and bloom profasely grown with the Odontoglonsams. In many places where it is grown in warmer housee, the plant does not flower, and in some canea soon perishen. Among othera, Manderallia bella and Odontogloseum grande are in blonm, and many other well adranced in bud. Near the cool house is a mall, rock-lined, unheated nook filled with very fresh-looking specimens of Todea superbs, Todea peilucida, \&c.
At tiae eid of the Cattleya-house is a grecup of Dendrobiam formoum qiganteurn, D. Pha'ænopais Schroderianum, Cettlega maxima, Oacidium Jonegisaum, and other showy species; and in the small warra houss bejond, Dandrobium Johosonix and other hothoue Dindrobiums are thriving. The Cattleyas are the least, natisfactory, probably owing to a dilifeulty in applying bottom ventilation on one aide of the bouse, bat to obviate which an attempt in being madr. In this honse variegated Panicum effeet.
In another little houes, a basoh of Mutonia vexillaria, Coelogyne crivtata, end the Cypripedium kre
doing well. Then follow a houre of Cyclament, Primalam, and Boavardiay, and a very pretty rockhouse planted with Ferns, foliage Begonias, and other ornamental plants, and with the trailing Fican atipularie clinging to the rock; and at the end a Fern-honse is reached, in which the different varieties of Gymnogramma are truly magnificent, the large specimens of gold and ailver varieties being specially beautiful. The Adiantums, too, are good, as also fine plants of A. Farleyense and other Ferne, which are arranged with the Gymnogrammas.

\section*{FRUIT REGISTER.}

\section*{THE STRAWBERRY-RASPBERRY.}

This magnificent fruit is one not generally known ; it in a native of Japan, and is known botanically as Rabus sorbifolias [ \(=\) rotæfolias?]. In manner of growth, it is somewhat similar to our common Raspberries. The young plants commence bearing when only about 2 iaches high, and full-grown buybes vield heavy crops of fruit. The leaves of this plant are somawhat like a Rose bush. The fruit is of large size, a brilliant red colour, and very deliciously flavoured; it resembles a huge Strawberry very much, and hence the name, Strawberry-Raapberry.
Being such a fine fruit, and so different from all other kinds, it will be widely caltivated when better known. It can no doubt be used for every purpose that our Strawberries and Raspberries are pat to. In regard to hardiness, I believe it will succeed over a wide range of conntry. S. L. Watkins, Grizzly Flats, California, in "Canadian Horticulturist."

\section*{The Weak's Work.}

\section*{THE FLOW}

By bailex Wadps, Gardener, Birdall Gardens, York,
climbina plante. - Thome that are planted geainst walls, pillare, or on rastic-work of any kind, and which have grown atrongly, should have the atrong shoots thinued out, and then be nailed or otherwise secured. Most persons prefer a free mode of securing climbing plants, so that their natural habit is not overmuch constrained, and any severe cutting-back at this season should be avoided, especially of those which are evergreen.

IVY. - This, if of rampant habit, should have all the shoots that are not clinging fast to Whatever they are growing against, removed, but on no account should the foliage generally be cut off at this time of the year. The planting of Ivy wherever it is required may now be done, and beyond the necessary securing of the plants quite close to the wall, \&c., atter the soil has sunk, not much farther training is called for, it being better for the joung plants to get strong at the base, and form a good foundation of young ahoots that will cling to the wall of themseives. Edgings of Ivy will, after a few years, begome weedy, and imposible to clean. In auch case, it is the best practice to take up the plants of which the edginga conait, dig the groand, adding new aoil and leaf-mould, and planting it with young plants.

AMPELOPBI8 QUINQUEFOLIA, nnd other species that have grown out away from the wall, should have the ahoote thinned where growing too thickly and heavily. The shoots themselves have a graceful appearance when the foliage has fallen, bat care should be taken to make them ecure againat the wind.

JASMINES. - The evergreen specien should be thinned, and treated in the ame manner as Ampelopsis for the present. Jasminum nuduflorum is now generally coming into bloom, and the shoots should be left in the way they have grown till flowering is pant.

CLEMATIB Flamula (Virgin's Bower), and C. vitalba (Traveller'a Joy), bhould be left for the present in their wild beauty, also the hybrid garden varieties, although these last will require to be made secure againat the wind. Moat of them are secure ennagh if there be anything to which the shonte and tendrila can cling to or twine around. This year the Clematisen. \&co, have grown and bloomed laxariantly. Cbimonanthua fragrana. Choisya ternata, Cotoneanter mictophylla, C. Simonai, Cratagas
prracantha, Cydonia japonica, C. Maulei, E'my reflexus, Eucallonia macrantha, Garrya ellipties, ,ut the varions apecies of Loniceras may now be platere
care being taken to have the drainare made Fibry half-rotted loamy leaf-mould and goold manare make a compost for thene planta, rivied afford them a good start.

RHODODENDRONs.-The present in a gioat the to make new beds of peat or light fibry-losay nim for these plants. The soil, if it maut be excarnta should not be less than 2 feet in depth, and thens soil if not natarally drained muat be artificity denuded of its moisture. If lime be prenentinthy staple, every means must be adopted to ken water from it getting into the paat. In nomed tricts a mixture of peat, leaf-mould, lom, al barnt refuse will grow thene plants nitu torily, as also Pontica, Ghent, and mollis A'res Kalmias, Andromedas, Ericae, Gaultherim \(1 / 4\) zieaias, \&c., although a peaty acil in Provided these plants are well furnithel int wor masees, the planticg may proceed io mili mote till the end of November. The preenth mum will be favoarable for obtaining planta mith mil. matured wood and plenteous flower-bade,

\section*{THE ORCHID HOUsEs.}

\section*{By W. H. Werte, Orchid Grower, Burford, Dwhiv.}
cattleyas aigas and dowiana aumaOwing to the large consignments of Cattleys gigh C. Dowiana aurea and its variety chryotora, ima reach ua at this season, the excellent condition in which they arrive, and from the fact that ther my be parchased for low prices, many new growen my attempt their cultivation, and to ach a for bind on their management may be useful. Immedidet they are bought, carefully sponge them with will rain-water, and thoroughly examine every balb fux the Cattleya-fly. The pent may be found in the deformed paeudo-balbs, or if a small roond hole \({ }^{4}\) observed in any part of the bulb, ite exivanan is proved. Sometimes these innects appoar in in new growthe when they are only a few inder high; the growth then commence to swell at th base and to gradually taper off thinly at the top, wid make but little further progress. When the platht are ao affected the young growths should be catt of and barnt immediately. If once the fies in allowed nafficient time to establith themselven in the house, it is impossible to eradicate them bifen much damage haa been done, and perhapt mury valuable plant irretrievably ruined. Alter imported planta have been well cleaned tivy should be placed singly in the smallest pots por sible-just large enough to allow for one new growth. The pots should be nearly filled with routy drainage material, then hold the plant a trife abon the rim of the pot and fill up to the rhizome maller crock s , and ateady the plants if necessury tying the prendo-bulbs to neat stakes, bat ment mose or peat. The crocke in which the plantan placed shoald for a time be very aparingly mitand Thia being the season in which the plante makemis. roots, these will soon commence to pash ont wh the last-made preado-bulbs, when the piand then bo aupplied with peat and aphagnamoman equal parts. This should be packed firmly anuly the roots, intermixing with the compost s fer deenim pieces of crock to keep it open and to prevent position. Theze newly imported apecies should be subjected to the Cattleya-house temperatior otherwise the dormant eyes which are showing fj base of the foremost puendo-bulb will probably away into growth before proper root action mences, and although the planta may make mine good peendo-balb, they will not, owing to the of sunshine daring winter, become matured, and when their natural seanon ariven growth, those plants that break agsin will be and unvatiafactory. It is not possible to preven imported plant from making new growth nom, those which do atart should be given encoarage The pimill by heat and moistare, to grow quickly. The ppor object should be to induce root-activity, and growth as far as is practicable. While the g are dormant, keep them in the coolest part intermediate-honse, where water will quired occanionally. Some growero baokets in prefarence to the ordinary flower.po ee uo udvantage in doing this, ar batkemenime liable to decay. Baoketa are light and converian auspending the plants clone to the Yoontan wheril where low-roofed houses exiatt, the plana and at pots are juat as easily brought to the light, an more ander the grover's eye.

TEE HARDY FROIT GABDRN
By W. Pope, Gardenor, Highelers Castlo, Newoury.
DIFFERENT ABPECTB FOR WALL TREES - Some amocunt of care and forthbiaght are need - d in aelecting the muat aitable agpectar fofferent gorta and varitties of fraits. In mot diatricts, south walls are beat auted for A ric ite, Praches, and \(X\) elarines; but here, and coubtless in many other places a west aopect. suits them better, Aorient beina hoalthipr, and Prache more free from l-af hliater in zuch nn aspect. I Cherry-trea or two. if the fruit is wanted early, howaver, ohnuld be givan a place on a couth wall, good varieties for this parpose being Mayduke and Black Tartarian. Three neeful Plams well deserving the asme appect are Rivera' Esly Farourite, Jaly Green Gage, and Early Prolific. A fow earls liare, which should be cordons, as the fruiss are not offen legnired in large quantition,


 the trees till fully ripe, but, gathered se sion at they show indications of riparing, or they will b. mealy and insipid. Figs in the outhern countie Rencraliy do well on au! h walls, Brown Tarkey and White Marseille being good varieties. If epace can be found for a few cordon of red and white Currants, they will be found of great service in enmewhat lengthening the pason. Of Apricots, Hemokirk, Kaisha, Naw Large Early Pagcb, and Muorpark are smong the best. Good Peaches are Alezander, \(\mathrm{H}_{\mathrm{i}} \mathrm{le}\) 's Early, Early York, Dr. Hoge, Grome Mignonne, Belle de Duá, Drannd, Noblesse, V.olette It ive, Barrington, Walhurton Anmirable, Stirling Castle, Soa Figlo, and Salwav. O: Nectarinep, Eurly Riverf, Balgowan Violette Uû ive, S anwick Elrage, and Hamboldat are pows. Walla with an east aspuct are best for the pain cron of Charries and P:umn. Gand variatip of the former are Werder's Earlo Black, Ruine Hortenue, Fiarly and Lata Dake's, Bigarreau Nipoleon, 13 ack Tartarian. Farly Juboulhy, and E.ton. dessert Plamp, Green Gage, I)amienn's Saperb Haliok's Suoerb, Jeffereon. Kirke's, Tannament Gage, Coe's Gulden Drup, Reine Claude de Bavay \(\mathrm{D}_{3}\) Montfort, Monarch, Grand Dake, Angelina Burdett, Blue Imperatrice, Ickworth Imperatrice and of culinary varieties, Early Prolific, Orleans, Brince Eaglebert, Poad's Seedling Victoria, Mapoum Boo num, Dismond, Belle do Septembre, and Gie borne's. Wett welle are good for Pears. B-arré Saprsfio, Disenté da Comice, Darondean, Marécha

 Cingee, Matana Trpyva. Winter Nolis, and Josephine de Malises being rome of the bat for the different seanons; while for sewing thare is nothing better than Cisillac and Bellitime d'Hiver. North wails are eapacially usefal for MI rello Caerries, o which it is hardy possible to have too many. \(R\) ad Currants should also be planted in quansity on thi aspect, and a tree or two of the Victoria Plum, if foom can be spared.

\section*{PLANTR UNDER GLAB8.}

By W. H. Smerxa, Gardener, West Dean Park, Chichaster.
FREESIAB. - If thene bulbous plantsare required in loom at the end of the month of Decesaber, a batch of them should be placed in a houss baving a temperatare of about \(60^{\circ}\) at night and \(65^{\circ}\) by day, and afforded plenty of water; and when the pote are filled with roots, some suitable fertiliser may be used. The blooms of Freesias are very useful for catting, and a saccession of them rasy be obtained throughout the winter by placing batches of the bulbs in heat at intervale of three weeks. Place atick to the plants when 3 or 4 inches high, and syringe them frequently in bright weather.

DOUBLE-FLOWERED PRIMULAB.-These planta should be removed to a house having a temperatare of \(5.5^{\circ}\) by niphs and \(60^{\circ}\) by day. Such a house, if admitting plenty of light, will sait them admirably if they be placed close to the glase on shelves. Here they may remain till flowers appear, when if dearahle. they may be placed in the conservatory. These Primalas require mach light and plenty of apace in which develop their leaves, or the latter soon aprib

POINBETTIA PULCMERRIMA, - There plent should now be afforded a temperatare of \(60^{\circ} \mathrm{by}\) night and abont \(70^{\circ}\) by day, and a liberal trentment if large bract are looked for. Alway keep the
plante near the glase, to prevent drawing of the atem: and leaf atalks.

WINTER-FLOWERING BEQONIA8.-If these plent. have be-n pruprriv treated, a good show of blonm will be obtained towards the end of the jear. To ahow off Begonias in the beat manner, they should be placed thinly in a well-lughed glans house, raining them somewhat over a carpet of Mailen hair Fern. Tae temperatare of the house ahnuld no , bu lower than \(56^{\circ}\) by night, nor higher than \(65^{\circ}\)
to \(70^{\circ}\) by day. Guire de Scearax is admitted to be one of the finest varieties, and groaps of it look well if bordered with \(B\) Gioire de Lorraise. These winter-blooming \(B\) gonias require water in abuadance, when the pots are filled with rootr, and growth is active. A top-dressing of some kind of mild ferti liser will benufis them. Neatly stake and tie pach plant: usa tho syringe in bright weather, and keap the eir of the holiza moint. If aphis appear on thoma plants, fumigate the house with tobscco, or better atill, vaporise it with X L All, a very asfe and effectual imbly

FUCH8IA8.- If Fachaias have been uned in beddiog.ont, moote fit for msking catting will be plentiful on the plante, and a good number should be made. T'aey strike readily under hand-lighte at this mason, and when rooted they should be potted into (in's, and placed on the greenhouse shelf. If potteid on in the early spring, theae will make fine planta for summer decoration. [In cooler parts of the country than that in which our correspondent resides, bottom-heat will be peeded in the atriking of Fuchaias at this late part of the reasod. Ed.]

\section*{THE KITCERN GARDEN}

By Jorm Lambert, Gardener. Powis Cauch. Welshpool.
GENERAL WORK - Eadive and Lettuce will now require constant ateation in regerd to blanching. Lift the Endive, and tranoplant into framea for protection. If a mild autumn occur, Eidive may be kept good outaide up to Cariatmas by the protection afforded by mate, and the plants mary be lifted and tranalantel into boxes, and put into the Mushroomhouse, where they will soon blanch, and be ready for ase. Lettuce should be carefally looked over on warm, moist morninge, for sluga, and a davting of not or lime given in their haunts. Where a few Peas and \(B+a n g\) are still sown in the satumn, the ground ahould be gos ready, chooving a warm itartion, usually a south border, and groand that is well drained, lies high, and is fairly dry. See that dwarf Beans in frames receive plenty of air, and on all favourable nccasions the light may \(b\); taken off entirely. Water them when dry, and do not let them get overcrowded. Damp the soil occaionally daring suitable westher with sot-water, as s preventative againt red-spider. Make sowings of B tans at regular intervala from now onwards, if they are grown in pote, afford a not higher night temperature than 60 . The buik of the late Calery will require another earthing-up, for it will not be afe much longer, bat do not cover it up too mach at once. That it may keep well through the winter, the lant earthing-up should be left as late as possible, bat the leaves should not be exposed to sharp frost before this is done. A few mate thrown lightly over the plants will prevant this, in the eveat of a sharp frost occarring before the work is done. Toe same remark will apply to Leeks, except that frost is not 0 harmfal to them. If the Leek are fall-grown, they should be earthedup forthwith. Carrote will now bs ripening, enpecially in early districte, and may be lifted, choosing a nice dry day for the purpose. D, not cat the top closer than 1 inch from the crown. In a good root-house, ball nearly, or entirely, underground, and one not subject to inflax of water, root do not require so much eand or ashen for covering them; all risk from frost is avoided, and the roots are always ready for use. If sand or when be uted in sueh a houte at all, very little indeed will be required ia this way than in a clump, where often they are allowed to grow. Beetroot ahould be removed before sharp frosta occar. Lift with care, and twist the tope nicely off instend of cutting them. No roots, \(\operatorname{so}\) - Beet in particalar, should bo braised or broken. Orergrowa Beet should be rejuctran, a baingnnt worth toring. Hedges of Holly,
 Where they have been planted for ahelter, if given a final trimming \(n 0 w\), will not grow again, and frot will not diefgare them, as in the case of thone which make youge growith late in autumn. Abundarce of
work will be found in clearing away exhauted cropm of Peas, Beank, \&ce. Now Pea-sticks should b saved for ase next year. If it is denired to asvo any particular variety of Peas or Banat take advaritage of dry daye to pick the fully-marured pide without delay; and proose them in a vinery or ahed to harden before abelling or thisehing them.

FRUITS U氏O世 GG489.
By bicraro Paberb Gz-dene Gonhwood. Chichertep.
FRUIT TREES GROWN IN POTs.-The repotting or top-dressing in accordance with the raquiremente of the trees, should now be fiaished off, and the treea placed in their winter quartert bortly afterwarde. These fruit trees will be benefited by having the fullest exposure, provided the pote are protected from froste, which would cause the latter to barat. The pots should be planged above their rims in coal-ather, but failing this, protection may be afforded by wing tree-leaves, bracken, or long stable-litere ; and a quite open position in best for them, away from the drip of treav, and where water does not collect.. The trees should at this eason lie examined for the "brown acale," American blight, or other peat, and the proper remedies applied. For the firatnamed, nothing is afer or more effective than repeated syringing the trees with water at a temperature of \(130^{\circ}\); and for American blight, the infented branches should be well cleaned with astiff brash, the tip of which should be moistened with petroleum. The main atems and branches may also be painted over with whitewash made from freshly-alaked lime. Trees which have occupied the same pote for several years may be planted out-of-doors with advantage. younger ones being potted-on to take their places. . presear a preference bould be given to amall healthy trees. On receiving these from the narsery, the strongest roots should be shortaned somewhat, aid the plant placra ia rataer mall pors for the trst ane maiden losm as the basis of the ail used in the potting; to this ahould be added a relatively ara! quantity of wood-ashes and cruahed bones. The 2 inches in diameter at the butt end. The pots concaining these young treen may be plunged with the rest of the orchard-honse trees for the winter. Trees potted at about this date soon pay roxts into the new oill, and make early growith the following sesson.

8TRAWBERRIE8.-Bsfore the end of the present month, potced plata should be placed in ruch a position that the pots are not likely to be aplit by the action of frost. The general atock and late sac cessions may be planged anywhere in the open, as evere wather does not ha'm them, providing tha pots can be protected, and plants which get covered with now often go through evere frost with lent injary than other placed in orchard-hnases or other cool glass etractures. Those plants which are required for forcing early may be p'aced in pits and frames, where they can receive thorough protection from frost, and where the plants can be taken out of the planging material at any time during the winter.

POT VINES - The cane have ripened well mince they were atood oataide, and the foliaze should be allowed to remain on them, and allowed to fall naturally. At the approsch of frost the pots abould be tood close together and protected by bracken or long litter. Those intended for early work will be nove the worse for exposare to frost, as it ensares thorough reat in the plants. Tae canes may be shortened back to the required length amatims before they are brought into the forcing-pit, and those intended for "cat-backs" may be cut-back at any time while growth remsins dormant. Ia pruning these Vinea (cut-backe), three bude must be left at the bane of the vine-rod, the atrongest thoot which resulte from these buds being selectied, the two other being then removed.

Digtribution of Plantb at the London Park8.-Arrangements have been made for the diltribution to the pablic on the days named of any surplas bedding plante there may be at the following places:-At Clisaold Part, on tha 8 in inet.; Dalbury Park, Myate' Fields, Victoria Fombunkent Gardens, and Southwark Park, 16 :h: Baterepa Mark, 18:h; K wal Victoria Gartan, Nurb Whatwich, 2lot; Waterlow Parx, 22ad; Kenangtun Park, 23rd; at Brockwell Park there are no curplaa flante thin year.

\section*{EDITORIAL NOTICES.}

Advertisamente ahould be sent to the PUBLISERR
Newapapers-C'orrespondents sending newspapers should be carchal to mark the paragraphs they wish the Editor to ses. Ilustrations.-The Editor will thankfully rective and select photographs or drowings, suitable for reproduction in these pages, of gardens, or of remarikable planks, Nowers, trees, dc.; but he cannot bo responsible for lose or injury.

APPOINTMENTS FOR THE ENSUING WEEK.
MEETINGS


SALES.
Dutch Bulbs, at Protheroe \& Morris' \(\left\{\begin{array}{l}\text { Rooms. } \\ \text { Sale of }\end{array}\right.\) Sale of Nursery Stock, at the Arboretum Nurseries, Wood Lane, Isleworth, by Order of Messrs. C. Lee \& Son, by Protheroe \& Morris.
Dutch Bulbs, at Protheroe \& Morris Rooms.
TUESD 1 Y, OCT. \(15\left\{\begin{array}{c}\text { Sale of Roses, Frait Trees, and Pbo- } \\ \text { doderdrons, at Arches Farm }\end{array}\right.\) doderdrons, at Arches Farm,
Framfield, near Uclfield, by Order of Mersra. Wm. Paul \& Son, by Potheroe \& Morris.
Dutch Bulbs, at Protheroe \& Morris' Roomas.
Clearance Sale of Nursery Stock. at the Nurseries, Putney, by Order of Messrs. Mahood \& Son, by Protheroe \& Morris.
Bale of the Collection of Orchids of the Firs, Lawrie Park, Sydenham, by Order of C. Dorman, Esq, on Morris (two days).
Dutch Bulbs, at Protherod \& Morris' Roomes.
Important Clearance Sale of Nursery Nuck and Fruit Treee, at the colv, by Order of Messre. Pennel] \& 8ons, by Protheroe \& Morris (two days).
Sale of Live
Sale of Live and Dead Farming Stock, at Rose Cottage Farm, Enfield Highway, by Order of Mr. J. J. Wilson, Junr., by Protheroe \& Morris.
Linden's First Great Orchid Sale, at Stevens' Boome, Covent Garden Dutch Bulbe, at Protheroe \& Morris* Rooms.
Clearance Sale of Nursery Stock, at
FRIDAT. OCT. 18 \(\left\{\begin{array}{l}\text { the Loughborough Park Nur } \\ \text { feriee Brixton, by }\end{array}\right.\) ceries, Briston, by Order of Messrg. Ponsford \& Son, by Protheroe \& Morris. Chids, from Mestrs. F. Sander \& Co, at Protheroe \& Morris' Rooms.
EATURDAY, Oct. \(19\left\{\begin{array}{c}\text { Dutch Bulbe, at Protheroe \& Morris } \\ \text { Rooms. }\end{array}\right.\)

CORREOTED AVEBAGE TEMPGRATURE FOB THE ENSU. ING WEER, DEDUOED FROM THE OBSERPATIONS OF TORTY-TBRERE FEANS, AT OHTSWIOK- \(50^{\circ} .7\).

Sozuality of
A Papre on "Physiological ReFlowera. searohes on the Sezaality of the Flowers of Pinus densifiora, Siebold et Zuccarini," by Kenstro Fusil, Rigakushi, Post-gradaate Student in Botany, Imp. Univ., Tokyo, Japan, has been sent to us, and shows that the interesting subjeot of the origin of the sexes in plants is being stadied in the far east, as it has been in Europe and America; hat at present the problem is not solved, and the question arises, is it ever likely to be? We think not, beoanse we oannot fathom the phenomena of life, nor the immediate oanses of its varions physioal manifestations. We know that plants oan be bisexual or unisexual, monæcious or diœecions; we know that in the latter cases the plant may retarn to bisexuality, and that, as far as all angiosperms are concerned, it is pretty evident that biseruality preceded unisexality. But how does the latter arise? We see that trees and plants oan change their sexes in differsnt years and in different climates. We eren see bisexual plants become
unisexual late in the season, all the flowers, e.g., of some Umbelliferæ being male. But what is the cause? One general reply to this question is, that it depends apon varying degrees of nutrition. Mr. Mereinan and others have observed that, speaking broadly, the more vigorous trees or branohes of a normally bisexual character tend to produce female flowers; the less vigorous, males. Thus, Castanea, Hop, \&c., have been exampled, so that any cause which can bring about an increase or decrease of nutriment may have the effect of producing female or male flowers, respectively. Again, it has been observed, as by Knight, that a high temperatare tends to the development of male flowers, as in Melons; a relatively lower temperature, the production of frait. Again, fresh Melon seeds produced plenty of male flowers, but old seed an abundance of female. Hoffman and others have found that if the seeds of a bisexual plant, as Spinach, Mercurialis, \&c., be sown thinly or thickly, the proportion of male plants is greater in the latter case.
Hence a great number of coincidences of the above kinds have be:n noted from time to time; bat still this does not bring us one whit nearer to the solution of the question-what determines the sex? or why does the sexless embryo grow up into a male or female plant? We may know something of the external conditions requisite, but we can only see that the protoplasm or living substance of the plant responds to them and gives such or suoh result.
The late Mr. Croll wrote a pamphlet entitled, "What Determines Molecular Motion?-The Fundamental Problem of Life." He observes that there is always an " object" in all the results of life action; and that not one of the known properties of physioal foroes oan throw the slightest light upon the immediate oause of this "object." In the question before as this object is either a stamen or a oarpel. Why does the sexless papilla on the floral receptaole grow into one rather than the other of these two organs? No microscopioal examination throws the smallest light upon it whatever. The fact is, we neither know the nature, nor understand the powers of life. At this point the biologist is brought up sharply to a dead halt!

If we mast be contented with knowing only the external influences, then it is here that the practical or experimental part of the subject comes in. Taking a local incresse of nourishment as a primary canse of the production of a female flower, the author of the paper mentionad above finds that this can easily be effected in spring-time if the young shoots of Pinus densiflora are out, as is usually done in Japan, by an annual pollarding. A second method is by keeping only one or two shoots, and breaking off all the other adjacent young shoots at the top of the last year's shoot; thirdly, by oombining these two processes.

The anthor supplies a table showing that "out of forty-five branohes experimented on, nine produced female or hermaphrodite flowers in the position proper to male flowers; that out of twenty-one branches with marks of previous injaries, the shoots of five branches produced female or hermaphrodite flowers in the positions proper to male flowers. And that out of 2283 branohes which were neither pollarded nor had any marks of previous injuries, the shoots of only seven branches produced female or hermaphrodite flowers in the positions proper to male flowers. The ratio \(\frac{\lambda_{2}}{}\) is very small when compared with \(\frac{9}{45}\) or \(\frac{5}{31}\) "

He observes in a summary that "the sex of the flowers of Pinas densiflora is not determined by their morphological poritions on the shoot. The
sex is undetermined until a oertain stage of their development. A flower which will otherwise develop into a male has a tendency to beoome s female when local inorease of nourishment tates place at a certain stage, or during cortain stagem of its development."
These experiments corroborate those of \(\mathrm{MaO}_{1}\) who found that male plants repeatedly proned gave rise to female flowers. Others have met with similar results. Thus, Mr. A. Hrnay soooeeded in inducing the formation of fomale plants only by removing two out of the three stigmas of Begonias, and in fertilising by tho third stigma alone. Hoffyan experimented on diœecious plants by fertilising them early and late in the season and with fresh and del pollen; though his results were in some dym contradictory, one, however, was interemide. Experimenting with Lychnis vespertina, mich he regards as the same species with L . dioies (white), when the period of impregnation wh more or less delayed, it seemed to have an influence upon the colouring of the flowers. The "precocious" impregnation favoured the production of the rose tint, for the proportion of red flowers to 100 white was 146 male and 14 female plants. Of those impregnated late, the proportion was about seventy male and fiftr-vix female. This result tallied with that of CusRİREf, who found that by crossing Amaryllis vittata with A. pulverulenta and A. brasiliensis (plants with red flowers, being varieties, nok species), he obtained a very great quantity of red flowers like those of the male plants, some few only were nearly white. This reall followed from the impregnation by fresblycolleoted pollen.
How far florists experiment in this way mith fresh or old pollen we do not know; bel since different and important results followed on the above occasions in the oolouring of flowers, there would seem to be some opening for experiments in this direotion. With regard to the subjeot of the paper, however, on the origin of sex, further investigations are wanted to disoover, if ever it be possible, the immediato oause of sex.

Group of Cattleyas at Burford (mem Supplementary Illuatration),-Cattleyas are amoogth the most gorgeous of Orchidaceons plants, and highly appreciated accordingly. The centre plant of the group in our Sapplementary Illastration is the magnificent pecimen of Cattleya Lamrenceana, which was exhibited before the Orchid Committeo of the Royal Horticultural Society on April 9 of the present year, which was juutly awarded a Silver Flora Medal as a mark of good culture. Thin superb plant measared over 3 feet across, and boro thirteen apikes of bloom, the number of flowern oll the largent apike being eleven. It may be of wome interest to those who had the opportanity of observ. ing the plant when shown, to learn that at the pre sent time it is sending ap eighteen strong groithe with fifteen flower- hheaths, which promise well for s good show of bloom next spring. The caltaril treatment required by C. Lawrenceana is of the simpleat kind. Uacally the plant is late in atarimg into growth, and the bulbe are only half formed When the dull days of autamn are upon wid it therefore require to be placed in the warmeat and lightest part of the house, so as to complete ith growth quickly. This point is an essential one. Al regarde affording water at the roots, restiog, sen tho course to follow is the same as is found anitable to its congeners. To the right-hand of the illastrations is the delicately-tinted C. Schroderne, its amedro acented and perfect-shaped bloom of great attance tiveness. The left-hand apecimen is a nobbe lli, bat and grand variety of the popalar C. Mendeli, unfortunately the brilliant colouring of the lip cand be reproduced by photography.


Royal Horticultural Society.-The nezt meeting of the Fruit and Floral Committeer will be held on Taesday. Ostober 15, in the Drill Hall, James Street, Victoria Street, Westminster, at \(120^{\circ}\) Clock; and at 3 Pm a lecture on "Nat Cultare in England" will be given by Mr. J. Omer Cooper,

Gardenerb' Royal Benevolent Inbtitu. TION. -The secretary of this excellent gardening inatitation inform us that Mr. F. Miller, gardener to J. T. Friend. Eiq., of Northdown House, Margate, bas paid over to it funds the sum of 10 gaineas being the proceeda of an exhibition of two large American Alces or Agaves, flowering specimens, en mentioned in our columns.

Chrysanthemums in Southwark Park.We are requented by Mr. Curle, the Saperintendent of this new park, to state that the dieplay of Chrysanthemams in the conservatory will be opened on Satarday, October 12.

\section*{"Botanical Magazine."-}

Anthurium Gustavi, Régel, figared at t. 7437, is a New Gianadan epecies, with long-atalked cordate orate green leaves, 3 feet acroas, slender purplish colinaric spathes only elightly ahorter than the apadix.

Mormodes Rolfeanum, t. 7438 (see Gardeners' Chronicle, 1892, i., p. 203, f. 30),

Polugala Galpini, Hook. fil., t. 7439.-A very divtinct sarabby specien from Natal and Swaziland, with shortly stalked lanceolate hirtulous leaves and terminal racemes of pale rosy-lilac flowers. It flowered in the Temperate-house at K9w in 1874.

Tulipa violacea, Boissier.-A Persian specie with relatively mall red or violet flowern with filament hairy at the base. Kew.

Sternhergia Fischeriana, Romer, t. 7441.-Like a fiae form of S. Intea, but flowering in apring instead of in autumn. Kew.
"Introduction."-The name of Introduction has been given to a new journal avowedly devoted to "instruction, entertainment, and general nocial topics," and which is to be published every Saturday at 30, Newcastle Street, Strand. The contente are indeed light and miscellaneous, to judge from the firat issue of the paper, and among them must be momething to anit the tante of everyone. This variety is the more comprehensible and praiseworthy when we hear that the journal il intended for colonial and American as well as for European circu'ation.

Death of Mr. Andrew Jamieson. - The Kew Bulletin for September announcen the death at the General Hospital, Madraw, on August 17, of Mr. Andrew Jamieson, Curator of the gardens and parks at Ootacamund, Nilgiria. Mr. Jamieson was fifty-three years of age, and had been connected with the Ootacamund Gardens for nearly twentyseven jear. He was formerly a member of the gardening ataff at \(\mathrm{K} \theta\), and was appointed to Ootacamund in September, 1868, being in mole charge of the gardens on the Nilgiris for many years, until they were placed under the control of the present Director, Mr. M. A. Lawson, who apoke most highly of Mr. Jamieson's skill and perseverance in all his dutien.

Viola Conference.-The proceedinga of the recond conference, held at Birmingham, on May 29 of thi year, were daly noted in our columns at the time. We have only to mention that the complete repurt in nuw pablished, and may be had from Mr. R. Dran, Kanelagh Road, Ealing. The papers read and pablished in fall are the following:"The Genas Viola," by Prof. Hilliouse; "Oider Varietie of Violas," by Mr. Richard Dran; "Violae that do well in Sarrey," by Mr. E. Brarell; "Newer Varietie of the Violetta Type," by Dr. Stuart; and "Winter Treatment of Violae," by Mr. A. J. Rowberry.

Stock-taking: September.-The optimiat who, during the past year or two, exprensed continued confidence in the pluck and energy of his fellow countrymen, and in the return to common-sense vilewe of thinge commercial on the part of many of our
best cuntomers, has had, and is having, his reward in the increased revenue of the country, and the extension of trade. Thus, the increase in the Exchequer receipt for the first six months in the current financial year is placed at £3,916,837 over those for the ame period last year; the gain in the imports for September is represented by the figure \(£ 378,393\), the decrease for the nine month having been reduced to some \(£ 662.301\). Of the exportm, which make a fine show, more anon. Here may be given our usual excerpt from the cummary table of importa:-
\begin{tabular}{|c|c|c|c|}
\hline Imeorts. & 1894. & 1885. & Difference. \\
\hline Total value of imports & \[
\stackrel{\underset{e}{e}}{30,24,461}
\] & \[
\underset{30,618,854}{\mathbb{E}}
\] & \[
\begin{gathered}
e \\
+378,393
\end{gathered}
\] \\
\hline (A.) Articles of food & & & \\
\hline \[
\begin{aligned}
& \text { and drink - duty } \\
& \text { free ... ... .. }
\end{aligned}
\] & 10,684,373 & 10,792,959 & +108.537 \\
\hline (B.) Articles of food and drink-dutiable & 2,282,725 & 2,099,457 & -183.368 \\
\hline Raw materials for textile manufactures ... ... ... & 2,247,272 & 2,023,436 & -283.836 \\
\hline Raw materials for sundry industries and manufactures ... & 4,263,855 & 4, \(3^{\circ} 9,688\) & +53,813 \\
\hline \begin{tabular}{l}
(A.) Miscellaneous \\
srticles
\end{tabular} & 1,086,074 & 1,140,909 & +114.835 \\
\hline (B.) Parcel Post ... & 81,66 ? & 69,129 & +7,483 \\
\hline
\end{tabular}

Taking note of the word "Hops," in the general figuren, we are forcibly reminded of come changes going on in France, on the matter of viticulture. Within the past few weekn an English official travelling throagh Bargundy, was amazed to see long extending lines of Hop-poles; and on inquiring found that the wretched little vermin, the Phylloxera, had effected the tranoformation; the Vinen had been grabbed up, the planting of American stocks being too expensive, and the beautiful Hop plant substituted. A fine light ale, we are told, was manufactured for market; but one of the upper-class merchant of the diatrict insisted that our rejected Local Veto Bill would have to be introduced into the Chamber of Deputier, and passed into law! It is an easy atep from Vine cultare to our fruit, root, and vegetable imforty, concerning which we give the following figures for the month just ended :-
\begin{tabular}{|c|c|c|c|}
\hline Imports. & 1894. & 1895. & Difference. \\
\hline Fruits, raw : & & & \\
\hline Apples ... ...bush. & 587,117 & 203,331 & \(-334.756\) \\
\hline Cherries ... ... & ... & ... & ... \\
\hline Plums & 148,407 & 125,502 & -22,905 \\
\hline Pears & 391,400 & 89,191 & -305,209 \\
\hline Grapes ... & 191,702 & 170,013 & -21,659 \\
\hline Unenumerated & 131,128 & 138,254 & +4,128 \\
\hline Onions & 693,208 & 621439 & \(-71,767\) \\
\hline Potatos ... ... cwt. & 29,470 & 68,1/4 & +36,634 \\
\hline Vegetables, raw, unenumerated ... ... value & \[
\stackrel{\boldsymbol{e}}{106,53)}
\] & \[
\stackrel{\&}{113,308}
\] & \[
\underset{+6,778}{\substack{8}}
\] \\
\hline
\end{tabular}

This is the most encouraging array of facte in this direction we have printed for yeara past, and they resd their own lesson. As to prices obtainable for the home product, an evening journal very recently reported, on the authority of a corrempondent, that a Somersetshire fruit-grower having sent on a ton of good Apples to a aleaman in London, received in return etamp for lens then a milling! Something wrong here, surely.

\section*{Exports}
descrve brief notice at our handa. The figures for the past month show an increase over those for Sep\(t \in\) mber lat year amounting to \(£ 1862,620\), the increase for the nine month pant being represented by the figures, \(£ 5,157,866\). This increase is spread over all, excepting three, of the classes usually pecifiad, and thene three are (1) raw materials; (2) metal and article manufactured therefrom; and (3) chemicals, \&c. It han been saggeated that we shall find a strong competitor for our Eastern trade in little Japan. The Japanere are taking ateps to greatly increase the outpab of coals, and to start a big thing in shipbuilding
and repairing. Surely, however, there is room enough and to apare among the Celeatials and adjacent countries. Formose will require a lot of looking after and expenditure, and as we learn that Cbios is negotiatiog a treaty of commerce with Japan, a plendid opening for everybody's export may shortly be found where twelvemonthesince no such thing was expected. We do not observe, however, that our export to the Esat are at present very much affected by our supposed competitor.

Canadian Fruit. - We are informed that arrangemente have been completed by which a firm of London hip-owners will convey Apples and all other fruits grown for commercial parpose in Nova Scotia, from that favoured colony, via the Shipcanal to Mancheater. By thil meane travelling expense may be lowered, and the price per barrel reduced to the consumer.
H. Witte.-Forty jears ago, on October 1, 1855, the well-known curator of the celebrated Leyden Botanic Garden, Mr. H. Wirtr entered into the position, which he atill occapies in perfect healtb, with the exception of deafness. Under Mr. Witta's management the Botanic Garden at Leyden has attained a very high atandard of perfection, and Mr. Witte is the friend of all the horticulturists, botanisis, and gardeners of Holland, and of a large number abroad, who appreciate him as a man, as the best Datch author on horticultaral abjects, and as a promoter of horticultare in all branches. On the 1st inst. a splendid banquet and concert was offered to the hero of the day, who had been complimented in the morning by the employes of the Butanic Garden, a reception held in the afternoon enabled the curator's numerous friend to congratulate him. The mayor of the City of Leyden handed the cross and ribbon of a knight of the royal order of Orange Nassau, a distinction which has never before been bestowed upon a horticulturist; the jabilee committee offered a valuable gift with a nice albem containing autographe of the subscribers; the old pupils applied a highly interenting album containing autographe, photom, and other ouvenirs of former pupile, who are now in all partn of the world: Profemor Subingar, the Director of the Botanic Garden, made a most cordial speech; the Luyden aection of the Royal Netherland Horticultaral and Botanic Society appointed Mr. Witte a honorary member; the Councils of this and other ocieties read letters of congratulation; and the new Tydechrift voor Tuinbouw pabliahed a special "Witte" namber, with an excellent portrait and extracta from the carator's oldest press work. In fact, it was a splendid featival, and a day which Mr. Witte and tho who were present will never forget.

Enalish Amber. - Professor Conwentz had nome interesting fact to state at the meeting of the British Association concerniag the formation of amber in different parts of the world. It seems that Baltic amber-succinite-is the most esteemed variety; whilet Eaglish amber, which is also ccinite, is found mostly on the coavis of Norfolk, Saffolk, and Esuex, and contains insectr, wood, Howers, \&c., which indicate the oldest Tertiary formations. From the fact that some apecimen of amber contain fragments of Mignolis and Cinaamon, it eeem: probable that the flora of the amber period was entirely different to that of modern Earope, Pharmacentioal Journal.

What our Friends Thinik of Us.-A diapatch from Loncon to the Sum, of this city, whates that this year there has been such an enormous crop of Plum in Great Britain that the price of the fruit has fallen to \(2 d\). a pound, which is mo little that it does not pay the cont of gathering and freight. One would natarally have sapposed that the grower would have made haste to dry the fruit, since Eng. land pays annually two million dollars for dried Plams imported from France. Eaglish farmors are extremely conservative, however, and they eat still and allowed the frait to fall on the ground and rot. It may be, that these Plum-growern can give some reasonable excuie for their failure to meet auch an
emergency. Farmera and frait-growers are often accused of a lack of enterprise, when in reality it is practically imponible to solve offtoand the problem which anddenly confront them. Garden and Forest.
"Everareen."-This is the name of a book inued in parts, and pablished simaltaneously in Edinbargh, London, and America. The eecond issue, now ready, is anb-titled "The Bjok of Aatamo," and, according to the prospectas, "will be divided into foar correlated parta: - I., Autumn in Nature; II. Autama in Life ; III., Autamn in the World; IV, Autumn in the North." Tae pablication is to contain biology, soziology, fiction, poetry, and other very diverse kinds of contribations, all from practised penf, and many of them illustrated. Farther information may be obtained from Patricie Geddes and colleaguer, Lawnmarket, Edinburgb.

Vegetable Products in porto Rico.Benides Sagar and CJffoe, both of which are intimately associated with Purto Rico, Tubaceo also holds an important position, bat though already cultivated to a very large extent, it is stated that ite growth might be extended almort indefinitely if it were not for the old question of excesaive taxation. The soil is of the very best for Tobacco growing, and quite equal to the best of the Caban plantations, bat as a rule, there is mome carelessness in the process of curing. Good Tobacco requires no great labour in its cultivation, bat considerable care and attention, especially an regards insect pests, and when the leaf is atripped, selected and dried. In all thene matters the native of Porto Rico is exceedingly careless, and this it is that preventa so good a final product being obtained as in Havana. Still, a considerable quantity of Porto Rico cigars find their way to the States, Spain, France, and Eogland; bus the Tobaceo trade is one which ought to be largely extended, if only proper facilities were given by the Government. Large quantitien of Tobacco-lenf are exported to Caba, to be made ap there into the world-famed Havana cigars. On the subject of fraits, it is aid that, though the Plantain, Banana, \&c., are grown everywhere, and are much used so fruit in the country, the export trade is not large, nor yet of the Pine-apple, which grows to perfection when any care is taken of it. It is remarkable that the Pine-apple is not exported in larger quantitiea than is actually the care, seeing that it is a fruit that could easily be bhipped and carried the short distance to the United States, where it can command good prices. The Cocoa-nut grows in immense quantities all around the coasta of the island, and to a considerable diatance inland, bat little or no use is made of it, and exports are few and far between. The content of the green nut are mach used as a beverage, but the great bulk of the crop, which has a centinuous growth, is allowed to go to waste. The Mango, covered with its green and golden frait, is common everywhere, and lines the roadsides in many parts for miles and miles. The Seville, or Bitter Orange, grows wild in the woods, but none of the frait is exported, and by far the greater part goes to abolate wate.
"dictionhaire Paatique de l'horticul. tune."-This has now reached the lettera Ner. As an illuatration of the care taken to bring this valuable work up to date, we may instance the article Musa, which embodies the information recently pablushed in the monographs of BaERE and of Morris.
"Hanobook to the Flora of Ceylon."Df. Trimen's mort aseful handbook makes ateady progress. The plates by which it is illuatrated now namber seventy-five. Barleria Arnottiana, with large tabalar blue flowers would be a desirable introduction to our stoves. The text of the third volume has now resched the Balanophoracea. The terse descriptive paragraphe admitting ready comparison are in marked contrast to the diffane diasertation admitting of oomparioon with diffeclelty if at ail which arre emplojed by the laboratory if athool of
botaniste.

Cedar of Goa.-Among the various conjecture as to the origin of this Caprennus, in one that it may be of Chinese extraction, and that it was taken from Macao to Goa. To obtain information on this point, we applied to Mr. Tutcaer, of the Hong-Kong Botanic Garden, who kindly informs us that from frequent, and, indeed, quite recent visits to Macao, he is able to nay there are no spacies of Capressus caltirated there now, and none wild in the immediate neighbourhood.

The Temperate-house at Kew. - The erection of the south wing of the Temperate-house was sanctioned by the Treasury last year. The care required in the preparation of the detailed working drawings, and the secaring the necesmary contracts as coon as the supplementary estimate had been passed by the Houss of Commons, prevented the work being immediately taken in hand. The contractor, however (according to the Septembar Kew Bulletin) commenced work on the fite on August 19, and bailding is being pashed on with all possible speed. It is hoped that the new wing will be completed by the middie of next year.

Wire fence at Kew.-The permission of the Queen has been obtained for the removal of the fences, exclading the public from the Palace Meadow, and since then, according to the September Kew Builetin, the First Commintioner of Her Majesty' Works and Public Buildings has anthorised the removal of the wire fence which since 1844 has separated the Botanic Garden from the Arboretum. As for many yeara there hay been no difference in the administration of the two areas, which are equally devoted to botanical parposes, the fence had become devoid of any practical object; and the four gates by which alone it could bs passed had become wholly inadequate to the convenient movement of the large crowd which now frequent the Royal Gardens in fine weather.

Pay of Kew Employes.-The Kew Bulletin for September says, that on the recommendation of the Firt Commianioner of her Majenty' Works and Pablic Buildings, the Treasary has agreed to the minimum wage at Kew being raised to 218 . In addition to this, both labourers and gardeners receive gratuitous medical attendance daring sicknean, sickpay according to length of ervice, and extra pay when employed on Sanday. On the other hand, retirement at 60 is compulsory, and pensions in the shape of "compasnionate allowances" are abolished by the Saperannuation Act, 1887, which only allows a gratuity of one week pay for each year of service. It will be interesting to trace the gradual rise of wage at Kow nince 1841, when it became a national establishment:-
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{4}{|c|}{Year.} & Labourers. & Gardeners. \\
\hline & & & & \(\%\) & 8. \\
\hline 1841 & ... & ... & ... & 13 & 12 \\
\hline 1847 & ... & ... & \(\cdots\) & 14 & ... \\
\hline 1885 & ... & ... & ... & 15 & 14 \\
\hline 1873 & ... & \(\ldots\) & ... & 17 & 16 \\
\hline 1888 & ... & ... & -0, & \% & 18 \\
\hline 1889 & . 0 & -* & ... & 18-20 & ... \\
\hline 1894 & ... & ... & -.. & 19-20 & \\
\hline 1895 & ... & ... & ... & 21 & 21 \\
\hline
\end{tabular}

Isish Agricultural Statistics.-A Report has been publiwhed containing abstract from Irish Agricultural Statiatics, thowing the acreage under cropn, and the number and deacription of live atock in each coanty and province (in 1894-5) ; also report from the mperintendents of enumeration upon the atate of their crops in their eeveral districte at the time of the collection of information for the retinme. There statiatice, published by authority of the Government, should prove of great uee to agriculturista, both present and future.

APPLE.-A correspondent rends ue a ripe Apple with a mall flower growing out from ita ide. \(O\) : courge, there is nothing, very extraordinary in the
presence of a flower in that situation, at thas may be accounted for on morphological and anatomieal reasons; the difficulty is to account for the lese production of the flower from a fruit already ripe.
"The Pig."-The first book of a series to be published under the above name has appeared, and is devoted to "Rational Pige keeping to enaure Prolth" The author is Mr. W. J. Maldens, and his prection and well-arranged treatise deserve every atteation from those interested in this subject. The pablimp is Mr. William A. May, Farm, Field, and Muily Uffice, 1, Easex Street, Strand, W.C.

New Books:--Index Kewensis,-We hen announce the publication of the fourth and last puta? thim monamental work. The gratitude and ajmputb? of all workers in botany should be extended to lif, B. D. Jackson, Sir J. Hoorbe, and othem, connected with this usefal pablication. Kenal' Botany.-This work is now completad under the editorship of Professor F. Oliver. We have alluded to it in its course through the press, and ith completion will give us another opportanity of referring to it. Two other books lie of our table, and will demand early notice, vim Rev. G. Henslow's Origln of Plant-strudwe, a fascianting and angestive book; and Mr. G. Murray's Introduction to the Study of Sen weeds, a book for which there wat a great need, w great has been the progrers since similar wotkham been pablished. Mr. Burberry has also publiaheds second edition of his Amateur Orchid cultinaton' Guide-book.

New Publications.-Ten New England Blom soms and their Insect Visitors, by Clabence M. Wro. (Pablished at B ston and Now York, by Hovariver, Mifflin \& Co, The Riveraide Press, Cambridge)Analytical Key to the Natural Orters of Flowaring Plants, by Hranz Thonner. (London: Smay Sonnenschein \& Co. New York: Macmillan\&Ca. -Insects and Insecticides, a practical manual concerning noxions insect and the methods of pre venting their injaries, by Clarence M. Werd, D.Se (New York: Grange Judd Co. London: Kway, Paul, Trenci, Trübner \& Co., Paternoster Houm Charing Cross Iind.) - Les Engrais Les Fo. ments de la Terre, by M. P. P. Dehérain. (Parii: Robere er Cie, Editeurn, 106, Boulerard Suint Germain.) - Handbook of West Amorican Come.barmin, J. G. Limmon, Oakland, Cal.s third (pecke) edition.

\section*{Book NOTICE,}

Das Trochnen und Farben Natualchir Blumen Gräser, Etc. By. Heinitle Hein; published by B. F. Voigt, Woiel (2nd edition).
We have, in this manual of 163 pager, full direco tion in the German language for bleaching, dyeive, and drying nute, fruit-carpels, eara of corn, pull leaves, Fern-fronds, flowers, grasues, reedi, rulteh \&c., and the preparation of natural materials or in making of bouquets. We are accustomed to at a few hop in London and other large cowie of Chriatmas-tide and other measons, quasy, Fart coloured or bleached grasses, Palm leavel, 8 , fronds, tree leaves of varions apecies, yashes, din but few permons are acquainted with the metioure pre which these charming decorative objects are pared, and to mont gardeners and floriats kno remain the clonent secret. And the littio put on ledge which some have acquired is seldom parad. any useful commercial purpose either here ory be tue This absence of enterprise or initiative mis tho to the extreme reticence on the part orstete and have mastered these method of manuracurest of the carefally-guarded manner in which the en appesp the trade are kept by them. Previons to the cisted, es ance of the firat edition of this manual, there carc carpe we learn from the preface, no book whics ghan rofs tent instrictions, and the booksellerl krien
that coald eupply the information that was lacking; but the businees begen to grow, and in certain directions wholesale manufacture wes being carried on-a few succeaful stabiishments existed in the suburbs of various towns which are the centre of horticultare in Germany, which tad laid the foundation of their present celebrity. To-day the basiness of preparing materials for, and the manufacture of dried bouquete and other objects is an important one in Germany, and seeme likely to extend.

The firat part of the book consint of an enumeration and concies deacription of the methods of cultivation, time at which to gather the bloome, and other encential information of those fowering plants found uitable for drying or bleaching, and dyeing, beginning with Composifs, Acrociniam roasuas being the first plant taken; theu Ammobian, Antennaria, Helichrysum, Helipterum, Leontopodium, Rhodanthe, and Keranthemum. Then come flowers which are not immortelles, inclading Delphininm, Pansy, Dianthan, Hollyhock, Sweet Pea, Koses, Atrantia, Eryngium, annual Anters, Daisies, Meadow Sweet, \&nnual Cbrysanthemum, Zinnias, and many more. The same plan is followed with grases and rushen, and this part eems to us a very uneful one, these plants affording graceful materisla for forming winter bouquets, mixing with flowers, either dry or freshly gathered, and other devices. The drying and colouring of mosses and moss-like plants also meet with satisfactory treatment. The aecond part of the book is taken up by the technique of the preparation of materinls; a description of the required apparatua and appliances, and the way to use them. In this rection the anbleaching method is fully described, and the various plants alluded to which can be subjected to it. All the various coloar and the various modes of prepariog them are concisely described in the last section. The manual is farnished with \(16 \%\) wood. cuty, and an excellent index, which meet all reasonable requirements. To those pernons, male and female, eapecially the latter, who are deairous of engeging in businese of a remunerative character, not involving hard manual labour, thim modest manual applies much valuable information, which they can pat to practical purposes at a mall coat. Hitberto most of the dried bouquet material sold in this country has come from abroad, but as nearly the whole of the plants mentioned are capable of being cultivated in this country, and some are indigenous, that should not be tolerated much longer. An English translation of Herr Hein's book hould meet with a ready ale in this country.

\section*{SUCCULENT SEEDS}

Every now and then we receive specimen of ripe Grapes the skin of which barate open to liberate a second eupplementary Grape formed in the interior. Having previouly only seen auch Grapes in the ripe condition, we had ccasidered them to be the realt of the formation of flowers within the original ovary, auch as occasionally happens in Crucifers. This aeason, however, we were privileged to receive specimens in the unripe stage, and the inspection of the berries in course of formation soon showed us that our previous codjectare was quite erroneous, and that the applementary berrien are in reality seeds whose coats had become fleaby (see figs. 76, 77).

This auculent condition of the seed-coat occurs in the nearly-allied Leontice, in Crinum, and nome other planta, as long since recorded by Robert Brown. An analogous change take place in the carpele of Rona eymnocarpa, but here it in the cont of the ovary that becomes succulent. The point now to be ascertained in the cause of thi production. Does some idjary occur to the berry, cauning it to crack? and doen the seed become fleahy in consequence of exposure? or does the seed-coat swall up firat, and by its force of growth cause the resisting coat of the berry to crack open?
As the subject if of much botanical intereat, we append the eccount of Robert Brown:-- In Leonfice the "drops etipttatia' of Michexx in 'in reality a
naked seed that in a very early atege had burat its pericarpiam." "In Pelionanthes Teta, soon after impregnation has taken place, from one to three of these ovula rapidly increase in aize, by their preandre prevent the development of the others, and rapture the ovariam, which remain but little enlarged at the base of the fruit, consiting of from one to three naked berry like aceds." Robert Brown, "Oa some remarkable Deviation from the asual Stracture of Seed, and Fraita," Trams, Linn, Soc. London, vol. sii. pp. 143, 151 (read March 5, 1816); The Miscellaneous Botanical Works of Robert Brown, vol. 1. (1866), p. 361. M. T. M.


A, unripe berries with sueculent seed protrudiog-real size B, C. vertical and horizontal sections, showing the origin of the supernumerary berries-magnified twict

 FROM BTPE MEAPIG

\section*{Home Oobrespondenoe.}

A ROADEIDE HOUBE GARDEN,-A charming floral effect might listely be seen at the "Joha Bull" inn, opposite Gannerubary Station. A balcony rans along the length of the house, and thi has been utilised to produce a very pleasing effect indeed. A dark-leaved crimson-flowered form of Tropmolum Lobbianum, growing in pots or boxes, falls down over the front of the balcony in numeroas graceful festoons, and has also grown apwards, and reached some dietance above the balcony railing, finding adequate sapport there; while varioui planty in pots, anch an Felargoninm of different typas, Petro
nias, Fuchaia, \&e., varied the arrangemeat, and furnish attractive patches of colour. It in pleasant to notice, as can frecquently be done, that wayaide pablic-housen are met with in the noburbe of London decorated in this way, and there is no reason whatever why Boniface ahould not be a gardener as well an a licensed victualler. It may be saicely asamed that pasaera-by would atop to acmire and probably drink a glass of something in compliment to the flower-loving pablican, \(R\). \(D\).
the naming of sweet peas and robe 8 BY THEIR PERFUME8. - I wan much interested by Mr. Hartland's note on this subject in a recent isue of Gardeners' Chronicle, and glad to hear that Enily Henderson, one of the beat white Peam, bad the least acent. The majority of our Sweet Peas, unlike gur Roses, are overladen with odourr, thelat!er can be tasted an well as smele, and much yood honey is ruined annarlly throuph the fulsomenes of Sweet leas. For this and other reason, such an the avoid. arce of headaches, it may be hoped that Mr. Hartland and others will tarn their attention not only to the naming of Sweet Peas by their acent, but to the reduction of the amount of the odour, or a change of their perfames. As to Koses, it is many gears ago when I first undertook to name some of theae from their odoura-notably, if I remember rightly, Devoniensis, the old Cabbage, Maiden's Blush, Boale de Neige, Maréchal Niel, La France, Chas. Lefebvre, \&c. In my addren to the Horticultural Clab at the Hotel Windsor last year on the odours of Roses, reference was made to those early attempta at classification and recognition of the perfumes of Romes. The time is never likely to come when we chall say of these, many have long been saying of the acent of Sweet Peas, "Hold, we have already more than enoogh." D.T. Fish.

OUT.OF-DOOR GRAPE VINES IN TOWNBPatsing along one of the main atreets in a provincial town the other day, I found a jobbing gardener trimming a Grape-vine. The Vine was apecially healthy and fruitful, and was furniahed with a all crop of good-ized, well-furnithed bunches. As a mere wall-clother and a welcome relief to a long ran of bricks and mortar, it was equally or more ornamental than the Ivier, Ampelopais Veitchii, or Virginian Creeper that were almont the only climbers brought into competition with the Vine. The leading shoot of the Vine had been carefolly tied-in, the laterals atopped several weeke since had broken again into ab-laterala, and not a few of the latter had broken into sub-laterale and tendrils, the whole having a rich and gracelul effect. The gardener was thinning the latter without wholly removing them, and the fffect of the bunches, foliage, and tendrils was mont promising and refreshing. The autumnal tints of Vines, to say little of the beauty of the fruit in bunch and berry, are also very charming, and many varietien of Grape-vines are worth growng an an ong the very richeat and choicent of fine-foliage plante. Even Lady Downes, West's St. Peter's, Alicante, and many others, that could hardly be expected to ripen their fraite in the open air, can ripen and colone their leave to the greateat perfection on southern and western and other aspecte; while among our very old-fahioned and hardient Grapes, that ripen their fruit in the open, as well as form ons of the richest contrast with their leaven, we have the Dasty Miller and the Claret, the latter finiahing in a glow of crimaon bardly matched by Virginian Creeper, however brilliant. Bat I have often advocated the use of fruiting and American apecies of Vines for the colouring of gardens, buildings, landscapes. The object of this note is chiefly to recommend the thinning of auch fine banches as I waw in the atreat the other day. Many of theme everaged the length and size of average Hambarghe; and were they but moderately thinned, they would donbtless reach to average size in the two possible growing month set before them. Already the bunches are so crashed an to move in masney. ounches are other berries are intruding each other in the fierce truggle for room. People tell us that for wine-making-the final goal of mont out-of-door Grapes-it matters little; but it doen, and thinning would pay even for thin, as, weight for weight, far more wine is preased from good-aized berries than a huge crush largely composed of dry skion and hard atoner, with a minimum of ithoh and juice. Besides, in favourable seasons, under favourable culture, and especially through liberal and timerly thinning, many Grapes may be ripened nufficiently in our climate to prove relreshing and tnjovable. Thouande of pounds are eaten, though jammed and crowded into molid mane through the energy of
growth, with only the mere exterior of the berrien ipe. With the entire bunch ripened to a similar extent through the thinning of out-of-door Grapes, the value of the crop would be doubled for winemaking or conversion into temperance drinks, and maltiplied many times for eating. \(D, T, F\).
defective arrangement in the arape Clabses at the Royal Horticultural Society's Fruit Show at the Cryatal Palace. I hould like to know why tables were not provided sufficient in size to hold the three exhibits in class 3 without making ane of a side-table for one of them; and why the udgea' attention was not called to this exhibit by he officials before the judges made their awards, ad why it was left to the exhibitor himself to call the officers attention to the overaight? Again, why did one of the cfficials make a suggestion that the xhibit thould have a 3rd prize without the jadges being called back? I may ary that the judges did judge this exhibit, and after a cursory glance at it awarded a 3rd prize. The ame kind of mistake occurred in class 4, but on the exhibitor calling the official's attention to it, the judges were brought back and they reconsidered their original awards, and gave it a 2 ad prize in this class. Is it usaal for judges to look at the address card when makiog their awards? John Cariill, 83, St. John's Road, S.E

CRABS.-Crabs are generally conidered to bo pither a wild or a cultivated kind of sour Apple, and in Kent, not so long ago, after making the cider, the droas, or crushed Apples, was thrown away some distance from the bouse, an it was conadered an lacky to have it anywhere near. From this not unfrequently hundreds of eepdings arose, and these were always called "Crabs" and uaed for stocks. when posnibly there was not a true wild kind, or sbarp acid Apple among them, and no it was that nccaionally, if the stock and core grew as well as the iciov, two kind of finit were on the ame tree I have zeen, jeara ago, a "Ruste" on the part Erowing frcm the stock, while the scion was the old Nunsuct. But it in not of this mode of raising atock I parpore writing, but of the value of the "Crab" as an orumental tree, both in flower or fsuiting. Generally small, light, and not ongraceful in growth, Crabe present at all times a plasing apect, but in epring or September, some ar besutiful in the extreme, and are well worthy of a phace in every garden of any eize or pretentions for feorative purporef, and as such I have used several f the varieties pith much eatisfaction to myself and to the delight of my friend. Few perple are awar for this parpose how very usefal it is. Of the kind to use. For flowers only, Malas floribundais charming in March or April, then there is a larger-fruited varicty of this worth growing. On this follows closely, Chicago, deep yellow with red cheeks Marengo, large fruit, red or yellow: Zeller, a fine colour and good bearer; as is the Yellow Siberian The Scarlet or Cherry I do not like so well as some. Oblong is one of Mr. Rivers' bright and showy Then of the maller kind, is efulis, an abundan bearer, but uneatable. From Mesart. Cheal get Ringo, a fine sellow, bat amall; and a lovely bright tranaparent acarlet of the Cherry size with a sharp acid flavour, and fine for jolly, this is Cheal's New Scarlet, and is an acquinition. A trille larger is the old red Siberian; then the larger and oblong bright coloured John Downie; larger and brighter atill is the beautiful Transcendent Crab, a tree of this, carrying a large crop, is a marvel of beanty, the fruit has much the flavour of the mall wild Apples one nometimes find in the out-of-theway hedgerowe, and want more sharpness for good jelly-making. Then the deep rich blackith-purple the Black Crab, very handsome both in shape and colour ; and last, not least, the glorious Dartmonth Crab, and when the crop is good and the season suitable, this possibly is unsurpassed, presenting as it does gorgeous appearance, and that of a momewhat deceptive character, being often taken at firt glance for a Plam tree hang about with rich coloured Plamm. Bat all having some peculiar merits of their own, it is difficult to decide which to choose, but take any, or take all, and acatter them about the shrubbery, and the renult, if judiciouely done, will add both beauty, and be also of ume for table and other decoration, and for culinary purpowes. There may be more than thowe named above, but I think I have given sufficient chace some of which I grow, others by Mr Pi choice, for weveral I am indebted to Mr. Rivere, and Crawley, who have kindly aent me to dre. Cheal of of the frict from tres noty in me to dencribe som Woip, Setemoak.

WORM-EATING 8LUG8.-The prewent month is one of those during which the carions worm-eatiog slag-Testacella-leaves the subterranean tunnel of its victims and coming above ground may often be found under loge and stones, in the neighbourhood of rich soil. The animal is easily recognised by it exceptionally leathery akin, and by the presence of a ting external shell on the hinder end of the body recalling somewhat the nail on the end of a human finger. The writer would be greatly indebted to any reader of the Gardeners' Chronicle who could send him specimens of these slugs (from any locality, and preferably alive, or preserved in alcohol), as the in formation al to the distribation of the animal in till canty. Wilfred Mark Webh, Editor of the Journal of Malacology," "Holmesdale," Brentwood

\section*{Essex.}

\section*{SOCIETIES}

\section*{ROFAL HORTICULTURAL.}

Great Exhibition of British Grown Fauit at the Crybtal Palace.

THIRD DAX'S CONFERENCE.
Mr. Philip Crowley, the Treasurer of the Royal Horticultural Nociety, presided at the third day's ouference, when Mr. Weathers, the Assistant ecretary of the Royal Horticultural Society, read

\author{
The Commeretal Aspect of Hardy Freft
}

The writer said, that in consequence of the agrinltural depression and the difficulty of making the had beeu at a loss to know what things they should row in the future with a reasonable prospect of a fairly remunerative return on their investments. Eoreigu competition was undoubtedly a serious matter, and must be deliberately looked in the face by present and future fruit growers. We must all make up our minds that unless we improved on our present system of culture generally, also in our methods (or want of method) in packing and marketing fruit, foreign competition would become even more keen. It seemed strauge that a practical and energetic nation like the British should have per mitted foreigners to step in, and in a measure monopolise their own markets with produce that could be grown better in every respect-except perhaps as regards colour-at home. At the same time it should be fully understood that cultivation must be thorough, not simply sticking a tree in the soil and expecting it to grow aud produce full crops every year without any further attention.
The fruit grower of the future must be a mau ho has had a proper education in the work; a man of untiring energy, with good business habits, and sufficient capital both to purchase his stock, and also to wait until they arrived at a bearing state. Or failing such men, capitalists could step in, buying the land and the stock, and employing a competent man to manage the business at a fixed annual salary, plus such a commission on sales or profits as migh be mutually arranged. It was of the utmost importance that only a manager should be employed who could bring positive proof of his training and abilities at a fruit grower, otherwive what might be a most remunerative investment would in all probability prove the reverse.

The question was frequently asked why skilled professional gardeners did not take up fruit growing as it paid so well, instead of being content to remain as gardeners. The answer was, that comparatively few gardeners had the needful capital to enable them to do so. Some more fortunate ones did do so, and usually made a very good living.

After dealing exhaustively with the question of land suitable for fruit growing, the writer went on to speak of the fruits. Tbe APPLe, he said, might be termed the King of British fruits, and looking at the enormous importations, there was no fruit holding a better prospect of profitable return. The soil of the United Kingdom was so admirably suited for Apple growing that if the cultural requirements were brit given proper attention, we could more than hold our own against the world. But to make the cultivation of Apples the commersial success it deserved to be, we must radically alter our present system, or rather want of system, by growing the trees better, and exercising more
honesty and care in sorting and packing the fruit The most profitable system was to grow a limited number of varieties as dwarf trees on a soil which had been proved capable of growing full crops of arge Apples. The first and most importaut advantage of dwarf trees was the quick return given by such trees as compared with standards. Some years ago the writer planted a number of Lane's Prince Albert costing 3s. a tree or 101 . per 100. They were planted at the end of October or early in November in well prepared situations. The following season a few Apples were produced, but the year after, i.e., the second year from the time of planting-a crop was borne and sold at 228 . pe cwt. and averaged \(3 s .6 d \%\) per tree. Of course, thet was an exceptional case, but it proved what could be done by planting dwarf trees carefully in suitable soil, with proper mauagement afterwards. The trees had continued to bear heavy crops of frnit in almost every subsequent year. Another advantage possessed by dwarf trees was the ease with which all operations connected therewith could be performed from the ground level as compared with standards which required ladders, etc. They were mach less injured by gales than were high trees from which Apples were blown down and spoilt for market purposes. Another advantage was that all malformed fruit could be plucked from the tree while small, so that when the fruit was gathered it could be put straight from the trees into the hampers with rery little sorting, and fastened down to be sent to market at once. The less fruit was haudled before reaching the purchaser the better its appearauce and the higher its value. By thus gathering the fruit and putting it into the bampers as picked there was no attempt at deception, as throughout the package. Buyers quickly noticed this honesty, and the sender acquired a reputation that made his consignments eagerly sought after The practice of topping the package with the finest ruit, with a mass of iuferior stulf beneath, could not be too strongly coudemmed.
Having decided on the form of tree to be grown, it was important that early orders should be given to a nurseryman of the highest repute, who would not permit a bad tree or one not true to name to the stock ursery. Another important matter was standaris the crabs aud stocks raised from Apple ips were the best, while nutbing would equal the Anglish or broad-leaved Paradise for dwarf trees.
Among the most protitable varieties to be grown were the Ecklinville, which headed the list, fetchug from \(£ 12\) to \(£ 22\) per ton; Lane's Prince Alberth itto: Golden Spire, realising about £15 a ton Worcester Pearmain, from \(\dot{1} 14\) to \(£ 26\) per ton; Varner's King, £16 per ton; Cox's Pomona, Cors Orauge Pippin, King of the Pippins, Lord Suffiela, Pott's Seedling, Yorkshire Beauty, Stirling Castle Tower of (rlamis, aud Dumelow's Seedling.
Pucss come next to Apples in giviug profitable cturns when they are growu upon bush trees. had ate years one heard much of growers whey not ound the price of Plums so for the picking, the fruit being in consequence eft to rot on the ground. This clearly showed to
 the fruit nuust have been small, the varieties in ferior, the soil and situation unfavourable, or the system of marketing stood in great need of im. provement. As a proof of this, one season, whices the wail was particularly loud as to the lo pfil6 prevailing for Plums, he had a gross return of buth rom one acre of Victoria Plum way. The lowet trees, planted at 8 feet apart each way. price he had made in the past ten years for Vic.
per cwt. and the highest 24 s. per cwt. The trees torias. Frost might occasionally cause take one year with another, Plums were well entitled to ranl next to Apples for profit. Among the profitaides varietics were Victoria, Rivers' Early, sometim 27 s. fetching 2Js. per cwt., and Czar, as high araring Earnest attention should be paid to the market of Plums; and in preparing them for the out and they should be properl packed in separate lots.
The Pear-a delicate fruit-was always in the least fair demand, and many imagined, Ho leading high prices ticketed upon them inent profit muat be made by the growers. His experience only in pro no hardy fruit was more uncerta Pear cultore ticularly favoured districts could pear. In ancu onsidered a comeroial success at all.
localities there was no question that Pear-growing would be a source of profit. Among the profitable varieties were Louise Bonne, which had fetched 14 s. per cwt. ; Beurré Clairgeau, 15s. per cwt. ; Clapp's Doyenué du Comice ; Marie Louise d'Uccle, Josephine de Malines: Catillac, Uvedale's St Cermain, Verulam, and Vicar of Winkfield.
The foreign Cherries were so poor in quality compared with homegrown ones, that there was every prospect of this popular fruit maiutaining its value and paying well in the future. The impurtance of growing only a few varieties of any kind of fruit held good with Cherries more than with any other kind because of the tronble with birds. For this reason, only one variety, or varieties which all ripened at the same time, should be planted in an orchard, this enabling a man with a gun to guard the fruit for the comparatively shor time it was necessary to protect it. Fixed object to scare the birds were of little use. Early River: held a high position among the early varieties then came Elton, (fovernor Wood, Florence, and Emperor Francis. There was a possibility of
making a fair profit by planting Morello Cherries.
For a man with but limited capital, bush fruit and Strawberries offered the greatest prospect of commercial success, as the first cost in purchasing them was comparatively small, and under fairly good treatment quick returns were secured. N fruit would pay so quickly as Black Currants, where they would grow, prices never being lower than \(\mathfrak{f 2 2}\) a ton

Red Cerrants were not in great demand.
White Currants must be very fine indeed to fetch good prices, and it would be rather a risk to plant any quantity

Raspberkies were a profitable crop, but pickers could not be engaged in the district, cou siderable loss might occur, as the fruit rapidly spoiled if not picked when ripe.

Gooseberries were a reliable and profitable fruit and ought to be planted on every fruit plantation o any size, as they come into bearing early from the time of planting, and proved of great assistance meeting expenses.

Strawberrikn. The price went up, and there was no reason why Strawberry culture should not give \({ }^{\text {as }}\) good a profit in the future as in the part.
The writer dealt with the question of the care and discrimination requisite in packing, and said finest fruit should wever, under any circumstances, be permitted. Perfect honesty in marketing was the best policy

As to insect foen, more attention to this matter was imperative to make fruit culture profitable. These pests should be dealt with early, as it was much easier to destroy them in their infancy.
Mr. Jonn Wright, who was one of the adjudicators on the prize essays, said that the paper they had listened to was at higbly valuable one. He and Mr. Barron (the Superintendent of the Ryal Horticultural Society at Chiswick), and the Rev. Mr. Wilks (the Socretary of the Society), had a heary responsilility placed on them. As they had heard, the writer indicated that the subject of fruit culture was a far
too serious matter for anyone who had but a little mones to too serious matter for anyone who had but a little money to take up, without tochnical knowledge to carry it through: practical man could be put in charge, the work would give a good return for the labour and capital invested. If they read this paper and the other prize essay which would be published in the Society's Journal, they would have in a small compass the most valuable production, the most sound instruction, and the safest guide on the subject which had ever appeared in the English language. He himself knew something about essay writing and the worries it entailed, and he had the pride and privilege of wearing the golu
medal given by Dr. Hogg sometime since. Although Dr. Hogg had been precluded from attending that meeting, that gentleman had anthorized him to say that he would give the large silver medal of the Journal of Horticulture to Mr. S. T Wright and to Mr. Lewis Castle, the writers of the Essays Mr. Lee Caypbell said he was very proud to tell them that by careful work on the part of his gardener and himself, he haul risen to the top of his profession. He started fruit growing as an experiment, but after a very long residence on the Continent, he was sure that wo were far ahead of the foreigner. He was, however, sorry to say that the foreigner had got more than the thius end of the wedge in, and he was afraid it would take a great deal to drive it ont. Whether wo could ever succeed thoroughly in that direction was doubtful. He had proof that our English fruit was not inferior in any respect to fruit produced abroad. A short time since he wrote to his salesman, Mr. John Mills, of Manchenter, askiog him to give him a faithful and candid opinion of how his frait compared with that of the foreigner. Mr. Mill wrote that his virieties of Apples realised 30 per cent. more on the averace than any other English Farietien, Now so
per cont. Was a profit in itself, at least growars thought although, perbups, shopkoepers were not coutent with it.
Recently they had gone almost entirely in for barrels for Recently they had gone almost entirely in for barrels for
convering frult. They thought this wis
 to the old style, as there wana certhin mavement in the thate. damaged it. They 1 nat bet ween ... :thi 60 lb . in is barrel. Mr. Mills also told him that hix J'asomid - Nomach
The question of foreigne minnetition, he heh, was a nathomal matter, and the subject of railway rates and the preferential rates given to the foreigner by our Euglish companies, woul. have to, be seriously gone into. As an instance, be mentione. that in Imerica five guineats a ton was charged for transit for a distance of 3,500 miles; be paid the Great Western Hailway Cos. same basis as Oranges were carried in America, the freight ought to bo about 4s. Owing to the milway companies' high charges thoumands of tons of fruit had to rot, as it would not pay to phace it upon the train. The Fronch Apples had an ad wantage over the English Apples between Southamptus from and to tae same places, showed a preference in favour "if people against indiscriminate planting. which would only the makiug a rod for their own hacks, and, like indiseriminate makiug a rof for in African mines, would make the victims wish dabling in Arrican mines, womd make
they had never taken the matter inn hand.
Mr. Gronok: Gondos said we should be a great deal mor Mr. Gronoz: Gondos said we should be a great deal more it might not be pleassant to Englishraen to confess it, the French cultivators were far and away in mance of us. The English method really spoilt the fruit, which presented any thing but an attrantive appearance when it was finally shovelled into the customer's basket. Then again, if we were to take full advantage of our opportunities, we should bs able to utilise our fruit in seasons of plenty by drying and preserving. There was no necessity to rely on the sun for preserving. there was no necessity to rely on
drying-that could be done in an ordinary oven.
The Chairmas mentioned that he had dried his own fruit The Chairman mentioned that he had dried his own fruit
in the wen, which answered satisfactorily. There were, however, two kuod Irying-machines - tho Mayfirth and the Wass one of which was at Chiswick Ciardens, where it might lre inspocteri

\section*{NATIONAL CHRYSANTHEMUM}

Ocroiser 8, 9, 10 -Mure than usual auccens attended the early sutumn show of the National Chrgannthemam Society, held on the above dates
in che Royal Aquarium, Wentminater, The quality of many of the bloome exhibited was very bigh, and almont equal to those gene-
rally ataged at the November meeting. There were ome new varieties presented before the Fioral Committee, and several Certificates were awarded. Competition in the open classes was generally good, but in the limited clanse rather weaker. The show gained much of it effectivenes as a diplay from the very \(x\) umerons honorary collections of flowers and fruits from the trade.
There were two exhibitors only of a group of Chrysanthe mum plants in flower, arravged with foliage planta for effect Mr. H. J. Jones, Ryecroft Nurseries, Lewisham, was ist. H Ftaged a good lot of plants and placed them thinly, with a few Yerns in iront and intermized, and a background of Bambusa Varieties most interesting were the new Mrs. Chas. E. Shea one of the first rate Japanese blooms of last year; Mra. \(\mathbf{R}\) Jonee, Litiere, A. H. Fewkes, \&c. The colour of several of these was rather deficient. The 2 nd prize was taken by Mr Howe, gr. to Hexry Tate. Esq., Park Hill, Streatham Common, who had a group consisting of Chrysanthemume with Dracsenas, Crotons, and other things.

For twenty-four Japanese blooms in eighteen varieties, Mr W. Wells, nurseryman, Redhill, Surrey, won lst honours, and his collection was capital, indeed, for this early show Among the varietias, the most noteworthy was Boule d'Or, an incurved variety of the present year, sent out by Calrat. A shown, the bloom is large and fairly full, petals broad, and the colour a pleasing shade of buff. A First-class Certificate was awarded. Wm. Tricker, Frank Wells, Eda Prass, Loaise (very good), Madame Ed. Rey, were all of good quality. 2nd, Mr. Chne. Cox, ET. to Jwo, Thotter, Eeq., Brickendon Grange, Hertiord whose collection had slso very exceptional blooms. W might mention Avalanche, Mrs. Anna Hartshorn, Preoide The beat twelve blooms (Japanese), distinct, was a doren from Mr. R. Jonez, gr. to C. A. Smita-Ryland, Heq., Barford Hill, Warwick, who had blooms of excellent quality. Mons. Chas. Molin, which was awarded First-clase Certificate as shown by Mr. W.J. Godfrey, was represented in this stand by a first-class bloom; Madame Ed. Rey, Mra, E. G. Hill, Wm. Seward, Fose Wynne, M. Panckoucke, were other that com Beward, Bose W
In the 2nd prize collection, from Mr. Jas. Brookes, gr. to W. J. NEWMax, Enq, Whetstone House, Totteridge Lane, N., were nice blooms of good colour, representing the newe varietien; Mr. W. ColliNs, gr. to J. W. Cardice, Keq. Pombourne Parl, Hertford; wat 3rd; and there were seven o eight other exhibitorn.
Ex blooms of incurved distinct oniy found two exhibitor
and Mons. Bahuant; Mr. R. Filkins, gr. to Mi:n Aletander, Oakbank, Chislehurst, was 2nd.
and the best were from Made of twans. Brown. br. of Pompone, and the best were from Mp. Chas, Brown. gr. to R. Henty Esq., Langley House, Abbots Lapgley, Herta, who had a mand
composed of very neat blooms of nice yuality. Miss Deber composed of very neat blooms of nico
Six bunches, however, were best from Miss Debrewam, wh showed very well in this class, and was followed by Mr. T. L. Turly, gr, to T. Boney, Esq., Southwoo1 House, Highgate, N. and Mr. Clias. Brown.
Mr. T. Tullett, gro to G. Alexanuer, Eeq.. Warley Lodk Brentwood, Essex, had Iat prize for two vases of Chrysan the und booms, twelve large-flowered blooms in each, with good, and only a little Asparagus was is ised in addition to the natural foliage. There were several other competitora in this natural
Amatıup Ciasses,-Mr. H. Love, 1, Melville Terrace, Sandown, Isle of Wight, was lat for twelve bloome of Japanese in not fewer than six varieties, and showed a capital collec
tion, blooms very fine, but lacking colour a little: Sch wabe wagnoticeable. 2nd, Mr, W. Amies, South Ashford

The clans for bix blooms was won by Mr. F. Durrant, 4 New Road, Ware; his collection lacked colour, as the only
flower with any colour was one of W. Tricker. ind, Mr. Ed. Jones, 25, Malvera Road, Hornsey, with bright bui smaller blooms; 3rd, Mr. AMIES.
Single-handed Gardeners. - The best twelpe blooms of Japanese, diatinct, came from Mr. J. Knapp, gr. to F. W. \(\triangle\) MSDEX, Esq.o. 2 \(\lambda_{\text {, Chichester Rood, Croydon ; his best blooms }}\) were W. G. Newett, Eda Prass, and Mrs. E. Jameson. 2 nl , were W. G. New
Mr. J. KMap
Mr. J. Krapp was again successful fur six blooms, including a good one of Annie Clibran; 2nd. Mr. A. W. Southard, gr. to H. B. Kenyon, Esyo, Winning worth, Sutton.

Floral arranjements. - The first class in this section was fur a table of mikcellaneous arrangements, illu-trating the decora tive value of Chrysanthemums. Mr. J. R. Criarm, Nitche Newiagton, won lst for this, and showed an effetive collection of bouquets, wreaths, button holes, spraat, \(\& \ldots\) thl
the whole was rather overdone with terries, and appipare to te designed 10 illustrate the value of terries in decorative exhibits. The best three epergnes of Chryeanthemuma were also shown by Me. J. R. Cuarn, and they exhibited conviderat te
taste. Mr. D. B. Crank. was 2nd ; and Mr. W. Gkres, Jr florist, Harold Wood, entries in this class. The class cluded), was won by

\section*{Miscellankous Exaibats}

We have alreačy described these as very pumeroup. Messrs. JAS. Vertch \& Eons, Royal Kxotic Narsery, Chelsea, had a groap of Chrysanthemums, very noteworthy, the blooms being good, and the group contained plenty of colour. The plante, in our opinion, would have looked better had they been less thickly placed together. Louise, as useal in early shows, figured Largely is the group. Madame Lecro'i, Lady Randolph, President Armand, Commandant Blussett, and M. Auguste ce Lacvivier, were noti. e3ble.

A nother group cf Chrysanthemums was staged by Mr. THos. Fiom Mr, W. J. Gurseries, Desr Tutterham,
From Mr. W. J. Gonfrer, Exmouth Nurserie \({ }^{2}, D_{0}\) vou, came a large display of Chrysanthemum hoome, most of which are Mr. Godirey's own seedlings. Monst. C. Mulin was recommended a Firrt-clans Certificate. Blooms the excellent Carnations, Miss Mary Godirey (white), Regi nald Godifey (pink), and others, were also shown.
Mr. Robt. OWen, Maidenhead, had blozms of rellow Gems, a fimbriated Pompon, flowers very small, with high centre ncurved, erth accellent broad petals (Certifiest) ; apace Bernard, a red flower, with very pale buff revere ( Ce , and col
Mr. W. Wells, who won in the class for twents-four blooms Japanese, exhibited another stand containing about four dozen fine blooms in considerable variety; and Mr. Shofsuif it Claremont Nursery, Woking, had a stand of twelve bloom, including Louise, M. Chaso Molin, Rose Wynne, and Phu'bu9, a good yellow reflesed variety (First-Class Certificate)
From Mr. H. J. Jowrs, Ryecroft Nursery, Hither (ireeu, Lewisham, was a very pretty collection of Chrysanthemum blooms. At the back was \(\overline{\mathrm{g}}\) good lot of Ferns and some conspicuous blooms in stands among these. In front there were seven or eight dozen Chryssnthemum blooms in boxes, Some Meesre. H. CANNELIE \& Soms, I wanley, had a large atand of Dahlia blooms, also of Cannas, and a few Chrytanthemumas. The large permanent fountains, one of which stands at either end of the Aquarium, were on the present occasion used orrangement. Mr. THos.S. WARE, Tottenham, lecorated one of these, and madea very commendable display of all sec. tions of Dahlia. blooms, well furnishing the entire structure. The other one wus capitally done by Messre. CHEAL \& Sow Orawley, who, in addition to Dahlia blooms, displayed a Crawley, who, in additios
Mr. R. F. Sucte, nurseryman, Maidenhead, exhibited various floral arrangements of Chrysanthemums; and Messr? other hardy flowers. Mr. G. Gondson, Belle Vue Nursery, Acton, exhibited a few plants of a new yellow Chrysanthe mum, with moderate-sized, very full flowers, apparently useful for decorative work. Mr, W. HigGs, Fetcham Part Gardens, Leatherhead, showed a number of excellent plante
a blown of Suintpautia ionatha, raised from seed sowa in ramuayy. Mr. E. G. Rern, nurseryman, Kent, had a few Dibtia blooma Cames, \&e
Fruit was exhibited well by several firms. Messrs. JNo, Fruit whs eztibited well He London. S.E., had a first-rate ATNG \& Sons, Forest Fin, London Mer., S. Sponner \& Hounslow, Middleser, and Mr. M. Brawick, sidmonth, Levon, also exhibited wortby collections.
Ocions and Leeks were shown by Mesars. Dobirie \& Co, Rothesay, N.B., and Onions by Mr. H. Deverilu, Banbury.

\section*{MAIDSTONE HARDY FRUIT EXHIBI TION.}

October 8, 9.-This was far the beat exbibition it kind this Society has ever held. The classes were better filled, and the frait generally was of the hiphest order. The entries last year were 98 , as comrared with 255 on the present occasion.

For the best collection, not to exceed twenty-four dishes, grown in the county, open to landowners, tenant-farmers, of marlet-gardeners, there were ten exhibitors. Roger Lirigh; Esq. (gr. Mr. Woodward), tooz the lead, showiog superb Peasgood's, Warhington, Mere de Ménage, Bismarck, Alex ancer Cos's Pomona, and Mother Appleg. four fine dishes of ncer, Con's Pomons, and Mother Apples ; four fine dishes of Peachea, and good Fears. The 2nd prize fell to M. H. Dalli soin, Es, (gr, Mr. LegR) : 3rd and ith, to A. J. TE
Rodmersham, ar, Mrs. Fremus, Teston, respectively.
Rodmersham, ar. 1 Mes. Fremlin, Teston, respectively.
The hest eighteet dishes of Aiples and six dishes of Pears open to all. were from Mr. WOODWARD; 2nd, Mr. S. H. Monimin, Mereworth; closely followed by Mr. Chambers, ionally good Applez.
For nine dishes of Apples and three of Pears, each dish to consist of twelve fruits, and farm gromn, six competed. The 1-t prize went to Mr Tyoves, who staged handsome fruit o The Wieen, Beauty of Kent, Gloria Mundi Bramley's Seedliog The (xiteen, Beauty of Kent, Gloria Mnndi, Bramley's Seedjing Apples. and rery fine Pitmaston Duchess Pears. Mr. Smith, Loddington, closely followed with a remarkably clean lot His best dishes were Cox's Orange Pippin, Ribston Pippin, Queen Curoline, Adam's Pearmain, Tower of Glamis, Bismarck, and Gascoigne Seedling Apples; 3rd, Mrs. Fremlin.

The class for six dishes, four of Apples and two of Peare, twelve fruits to a dish, was won by Mr. A. T. Killick; 2nd Mr. Blest, Broomeroft, Wateringbury; 3rd, Mr. Goodwin.

For one siere of Apples, Cor's Orange Pippin, there were ourteen lots. Mr. T. W. Startup, West Farleigh, was deservedly 1st, with large, handsome, and beautifully-coloure truits: Mr. Thomas and Mr. Goodwiv followed.
For any other dessert kind, Mr. Goodwrs took the lead, thowing grand Kiog of the Pippins; 2nd, Mr. Matwiwarive whowing gramd King
For orse fieve of Cuoking A ppleg eighteen competed, all of hich were exceptionally geod. Mr. Krlick took the lead howing good Peargood Nonsuch ; 2nd, Mr. F. Lockrer, with ery large and well-coloured Blenheim Orange
Mr. SMItit took 1st for four quarter-sievey of Dessert Apples showing very good Matbot's Pearmain, Cux's Orange Pippin Ross* Nompareil and Ribstons; this class was atrong, and eeveral other classes were well filied, the competition being keen throughout.

Miscellaneous
F. S. W. Cornwallis, Esq. (gr., Mr. McKenzie), staged some fifty dishes of Apples and Pears, all of superb quality.
H. I. C. Brassey, Eeri., Preston Hall (gr., Mr. Jarman) contributed some forty dishes of excellent fruit; and Mr. Startup ahewed a similar quantity.
Mr. S. Frost, of the Borough and Ling Nurseries, sent a large and raried collection of Dahlias.

\section*{SoOTLAND.}

LEEK AND ONION SHOW AT ROTHESAY.
While mont persons are reads to admit that the floral production from Rothenay take the lead at northern show, we are not prepared to eay that Rothesay ia able to cope with the groware of the more suany South in the matter of Onions. In the seed stores of Messra. Dobbio \& Co., an exhibition of Leek and Oaions was held, which in its way is as mach an international one as some of the great interuational " hors. Some of the grand Onions shown from disorict wide apart in England and Scotland would grace any show in the country, where ize and quality combined are recognized merits. Leek generally were auch as one is accus. tomed to wee in the North, mostly of fine form, well blanched, firm, and of large girth. It in to be hoped thim interenting exhibition, promoted by Mesers Dobbie \& Co. will be the forerunner of Leek and Oniou thows of greater magnitude. If vegetable roote were added to auch a show, they would increase the interent very materially-we think the promoter occane in iow, and \(t\) liberality on this occanon hat done wonders by bringing together
without any fuw, nearly eighty exhibitors for four apecimen Onion, and over aisty for Leek ; and, remarking the excellence of the exhibits all round, they increased the number of prizes, which were as follows:-Leek-1st, Mr. L. Collins, 108, Weat Wylam, near Prudhoe; 2ad, Mr. D. Logan, Castlelaw, near Coldstream, Keleo ; 3rd, Mr. J. Edwards, stationmaster, Stanley, Perth; 4th, Mr. Jame Hall, Kelso; 5th, Mr. William Laverock, 113, Grinlaws, Leslie. Other fine acknowledgments were made. Onions-1st, J. Bowerman, The Gardens, Hackwood Pars, Baningatoke; 2ad, T. Wilkina, Inwood Garden!, Henstridge, Blandford; 3rd, Noah Knellar, Malahanger Gardens, Basingstoke; 4tb, Adam Danlope, Flowerbank Cottage, Galston; 5th, R. Fishwick, Singleton, Poulton-le-Fglde; 6ih, G. H. Cop, Gardens, Honest Park, Sherbourne; 7th, R. Paton, 40, Orchard Street, Galaton; 8sh, J. Hall, Singleton, Poulton-le-Fylde; 9th, H. Taylor, Gardener, Gredington, Whitechurch; 10 sh, W. Rankine, Loch Ryan, Stranraer. While there was nothing inferior in wny of the exhibits, most of them were firstrate, and admitted on all handa to be the finest bulbs ever seen in Scotland at any exhibition. M. Temple.

\section*{Notes from Coltoquhey, Perthshire.}

For some years past I have been desirous to see the gardens at Caltoqubey, near Crieff, the sest of J. M. Grabam, E q., where that popalar proprietor's gardener, Mr. Fender, has raised the excellent vegetable he has exhibited for some years at the great bows held at Edinburgh and Glaggow. The atrong points in the Caltoquatey collection generally are cleanneas and firt-rate quality, rather than grossneas and large mize.

At thil lovely seat there are other attraction than vegetables, such as the fine specimens of Conifera which adorn the extensive grounds. Though in common with Ochtertyre, and other places in the locality, some losaes were suatained by the severe gales in November of 1893, there are atill aufficient fine specimens to render Cultoquher attractive to lovers of Coniferæ. Among Oaks, Ashes, and other large trees of the deciduous class, are to be found the following, which have recently been measured, in order to find the actual progrea they are making in height and girth of tranks 5 feet from the ground. The trees are in good health, and handsome in form. Taga Mertensiana, 68 feet high, and 4 feet 9 inches in girth; Abies grandis, 68 feet high, and 5 feet 9 inches in girth; A. Nordmanniana, is feet 6 icche high, and 7 feet \(f\) inche in girth; Taxodium sempervirens, 49 feet 6 inchen high, and 7 feet 3 inches in girth; Thaiopsis borealis, 34 feet high, in buth form; Sequoia gigantea, 54 feet 6 inches high, and 10 feet in girth; Araucaria imbricate, 50 feet high, and 5 feet 8 inches in girth (this plant meanures 16 feet at groand). Many others are doing remarkably well, iacluding Picea Menaienii, P. orientalis, Taga Pattonii, Abiea cephalonica, A. L')wis, and A. Pinapo.

In the vegetable garden we found abundance of excellent produce. Good soil, deep tilth, and the judicions application of manure by Mr. Fender, renalt in excellent crops.

A carnory inspection of the fruit crop thowed the careful attention the trees receive. Pears, moatly grown on wall, are represented by William.' Bon Cbsésien, Marie Lonisp, Comte de Lamy, Louise Bonne, Swan Egg. Moorfowl Egg (still a great favourite in the Nortb), and some other of the hardier sorta, it being useless to attempt to cultivate the fine Fsench Pears, which require more aid from san than they would get in mid. Perthehire. Hardy and useful kinds of Apples, Plams and other frait are caltivated. Hale's Early Peach wa in capital condition on the walls.
I did not leave before seeing the Marechal Niel Rose which has prodaced for yeara past fine prizetaking flowers. It is grafted on the White Banksian, is cat hard back, and trained over the roof of a greenhouve. M. Temple, Carron, N.B.

Streptocarpus.- We have received through the courtea) of Menirr. Jan. Veitch \& Sons, Chelsea, a few late flowers, in various colour, of their new hybrid Streptocappuser, which were noticed more

Nursery Notes,

\section*{ROYAL EXOTIC NURSERIES CHELTENHAM.}

Thesa nurueries have been carried on by Memb, Heath \& Son for many years with conoiderable auccess and profit, and the various departmenter of the business are anusually extensive and comprehensive. Throngbout the midland, western, and northern counties the firm has long been famous and it is gratifying to know that their fame in mell sustained at the present time. The nursery atok generally is excellent; stove and greenhouse plow are varied and well grown, as also Orchida, and the breadths of Roses, Dahlias, froit trees and ahriun in every instance bespeak the master hand. A good assortment of the more valued herbaceous peres. nials is grown in considerable numbers, and in proportion to their various merits. The cut lioner trade of the nurseries in very large; the number of wreathe, crosses, and other floral designs despatchad in the busy season is very considerable. To meet such a large demand, large number of nuitable plante for flowering in the winter are growa, and among these Tea Roses in pots form a considerable proportion; and for these alone several houses aro utilised, and two or three methods adopted in their cultivation, so as to meet the requirements of certain varietier grown. Oa the other hand, to retard or proo long the season of flowering to the very atmoth, besides these pot Roses, others are planted in border made in the houses-some of the Rose-honm having portable roofa, which admit of a thorough and complete ripening of the wood by remoring the lights. Large numbers of tree Carnations are allo cultivated, particularly of those chades of pink reprosented by Miss Joliffe. One large houre contained a batch of an unoamed pink variety, evidently of perpetaal character, which at the time of my vitit was pushing forward its spikes in sevaral atages that promised a long succession of bloom daring the atamu and early winter. Jadging by the lown that were expanded, it is of a somewhat deeper thade of pink than Miss Joliffe, and it is a fuller flowef.

Bourardias are caltivated on an extensive uche in all the leadiag varietien, planting out as well a pot-calture being adopted-those planted out being a very promising brtch, notwithstanding the great heat of the patt summer, the stardy vigorous bathes showing that they had been well tended. The planting-out method for these plants was adopted some jears ago, and it has been very succesfah Near one of the beds of Bouvardias was a low apano roofed pit, flled with Boovardia planta in potr, wine of which were on the point of opening their fiower These were a capital lot of plants, numbering antrin handreds, vigoroun, fresh-looking, and fall of forte. bud.

Poinsettias form another extenoive item, and were noteworthy for the dwarf turdy character of the plants, which is in a measure accounted for by the fact that they were grown fully exposed in opea frames. In the culture of thene decorative plank Mesars. Heath avoid tall, leggy, leafless planta, pre ferrigg to produce quantities of plants of an uniforme aize, which in the long run are the more nefeler From the first the plants are accustomed to a coolm treatment than is usually thought good for them and the large batch of plants bear proof of the cot rectnens of the treatment afforded. The plaw carry their foliage down to the pote, not drann and weak an one often see Poinsettial, of rendered too delicate for ordinary decorative parposel.

Among the atove-planta, many of the leading Codisenms (Crotons), in well-coloured exampletr wers noticed, many of them very brilliant bigh effective. These plants are the products of the temperatures, abundant mointure, nearnen glans, where they receive the fallest posible suasen for the greater part of the day. In another Dafin containing the Ixoras, I noted a fine pair these phas between 5 feet and 6 feet throngh. These play carried some forty or more fine growths, all grand trusses of bloom.

Urchids are also grown largely here, particularly thone beat saited to cat flowers, together with many good and rare kinds too nameroas for this brief note. Of thone that were grown abandantly and deserved apecial note wa. a very large batch of Cypripediam insigne, which include many forms of the ine old Orchid-there were quantities of large apecimen in excellent condition. Coologyne cristata was also largely represented. Another large house was almont wholly devoted to Dendrobium Phalænopsis Schroderianam. Of this alone there were a large number of plants in many nizes, and remarkable variety. The collection was jast coming into flower at the time of my visit, and already many pleasing flowers were \&xpanded. The great value of this Orchid is now well known, and in a large assortment of plants sach as may be here seen there in almont endless variety, as well as a long-continued season of bloom.
In the bardy plant department many of the more howy and useful epscies were to be seen, auch as shrabby Phloxe in much variety, Michaelmas Duiaits, Rudbeckias, hosts of Gaillardiae, perennial Santlowers, notably H. multiflorns and varipties; Tritomar, Pyrethruma, Campanulan in variety, CEaothers macrocarpa, with it large yellow blosoms fully expanded. And apart from these, Carnations, Pinks, Asterp, and a host of other similarly useful material. There were also Dablias and Gladiolus planted cut in bed galore; while in plantation of the yellow Marguerite, Chryanthemum frutencent var, Etoile d'Or, was daily expanding many hundrede of its a


The term "acoumulated tomperature" indicato the aggrogate amount, as woll as the duration, of degreee of cmperatare above or below \(42^{\circ}\) Fahr. for the poried degrees-a "i Day-degreew ignifying \(1^{\circ}\) continued far
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The diatricts indicated by number in the firat colamn are 0, Bootland, N. Principal Wheat-produceing Districts1, 8cotland, E.: U, England, N.E. i 3, England, E.; Primerpal Grazing, \&e, Districts- 6 , Scotland, W. 7 , England, N.W. 8. England, 8.W. © 9, Ireland, N. 10. Ireland. 8.: "Ohannel Ialande.

THEPA8TWEEK
Tar following summary record of the weather throughout the British Islands for the week ending October \(\delta\), is umished from the Meteorological Office s-
\({ }^{6}\) The weather contioved very fine and summerlite during the two first days of the period. On Ostober 1, however, it became very unsettled and rainy in the extreme south-weat
and west, and theoe conditions gradually exteaded to all parta of the Kingdom. Heavy falls of rein were experienced over the country generally, especially in 'England, S.W. and the Channel Islands.' Thunder and lightning cccurred in many localities about the middle of the period.

The temperature at first continued extremely high for the time of year, but subserquently fell rapidly and became rather low, frost occurring on the ground early on the 3s.1. The avergge values for the week, however, were again ab ve the mean in all districts excepting 'Scotland, E.,' the exces raoging from \(1^{\circ}\) in 'Scotland, W. and Ireland, 8. . \(^{\prime}\) to \(4^{\circ}\) in "Eugland, S. and S.W.,' and \(5^{\circ}\) in the 'Chanoel Islanis." The highest of the maxima (registered on September 29 or 30 ) ranged from \(8: 3^{\circ}\) in "Engiand, N.E. \({ }^{\circ} 8 i^{\circ}\) in ' England, N.W. and from \(78^{\circ}\) or \(79^{\circ}\) in most other districts, to \(74^{\circ}\) in 'Scotland F. and W.' The lowest of the minima were recorded towarde the end of the weok, when the thermometer fell to \(31^{\circ}\) in Scotland, N. and E. and in Eogland, \&.W. to \(33^{\circ}\) over central and eastern Rpgland, and to between \(85^{\circ}\) and \(37^{\circ}\) in all obher diatricts, excepling the 'Channel ralands.' where the lowest reading was \(45^{\circ}\)

The rainial was rather lens than the mean in ' Englasd, N.E., and just tyualled it in ' England, E; but was in oxcess in all other districts, especiaily in the west and north, the fall in 'Evgland, S.W. and the Chanuel Islands' being nearly three times the mean. The greatest fall at any individua station was 5.35 ing, at Arlington, of which 2.71 ins. fell on October
'The bright sunshine shows a great decrease over the Kingdom qenerally, but a decided increase in "Scotland, N . It was, however, again in excess of the mean, the percentage of the possible duration ranging from 5y in "Eogland, S.W., 48 in 'Epgland, K. and 8.. 47 in 'Ireland, S., to 33 in Scotland, W.,' and 30 in 'England, N.W.'

\section*{Trade Notice.}

Mr. Johi Claytor, eon of the Gardener at Grimuton Park, and who for nearly eleven years has been with Messrr. Backhouse \& Sons, narserymen, at York and Harrogate, bas been appointed representative of Mearn. Fisher, Son \& Sibray, Limited, of Handaworth Narnery, Sheffield, in nuccension to Mr. W. Atkinan, who, nome time ago, was appointed Managing Director of the firm in quention,

\section*{MARKET8}

\section*{COVENT GARDEN, October 10.}

We cannot accopt any responsibility for the sabjoined reports. They are furnished to ri regularly every Thursday, by the kinderes list, sad who are reaponsible for the quotations. It must be remembered that these quotatione do not represent the prices on any particular day, but only the general averages for the weel preceding the date of our report. The prices depend upon the quality of the samples, the supply in the market, and the
demand and they may fluctuate, not only from day to demand; and they may fluctuate, not only

\section*{out Flowrrb, - Ayerage Wholrgale Pbiciss.}
\begin{tabular}{|c|c|c|c|}
\hline & B. d. B.d. & & 3. d. 8. d. \(^{\text {d }}\) \\
\hline Arums, p. 12 blooms & 30-60 & Orchide:- & \\
\hline Azalea, 12 sprass & \(09-10\) & Cattleya, 12 blms . & \(90-150\) \\
\hline Bouvardias, rer bup. & 06-10 & Odontogloseum & \\
\hline Oarnations. 12 blms. & 10-30 & criapum, 12 blm . & 80-60 \\
\hline Chryaspthemums, per 12 blooms ... & 10-40 & Pelargoniums, scarlet, per 12 bunch & 30-60 \\
\hline Chrysanthemums, per 12 bunches... & 30-60 & - 12 epray" ... Pyrethrume, 12 bun. & \[
\begin{array}{lll}
0 & 6-0 \\
2 & 0-4 & 9
\end{array}
\] \\
\hline Eucharis, per dozen & 20-30 & Boees, Tea, per doz. & 10-20 \\
\hline Gardenias, per doz. & 20-40 & - colorared, p.dz. & 20 \\
\hline Gladiolus, p. 12 spe. & 10-20 & - yellow (Mar6- & \\
\hline Lapageria, 12 bime. & 0 6-16 & chale), per doz. & \(30-60\) \\
\hline Lilac, Prench, p. bun. & 30-50 & - red, per dozen & 0-16 \\
\hline Lilium Harripi, do. & 30-6 & - mixed, p. doz. & \\
\hline Lilium lancifolium, per dozen bloom 3 & J 9-16 & bunches ... ... Stephanotis, dozen & 0-80 \\
\hline Lily of tre Valley, doz. sprays ... & 10-26 & sprays Sunflower (emall), & 0-40 \\
\hline Maidenhair Fern, per 12 bunches ... & 0 & dox bunches & \(10-30\)
\(30-30\) \\
\hline Marguerite \({ }^{\text {a }}\), 12 bz . & 10-30 & Tubaroees. 12 blme & 02-04 \\
\hline Mignonette, 12 bun. & 20-40 & Violets, 18 bunches & 6- 0 \\
\hline
\end{tabular}

Oroilid-bicos in variety.

\section*{Phate in Potb-Averagi Whoteankx Pmotes}


\begin{abstract}


\end{abstract}

\section*{Vmaxtables.-Avirage Wholesale Fmoze.}

Beans, Runners, per \(\boldsymbol{B}_{1} \boldsymbol{d}_{1} \mathrm{~B}_{0} d_{0}\)

Onions, English, beh. 20 s.d.
bushel
Tomatoe, Home
grown, p. dc \(z\). th
Caulithowert, D. dor. \(10-\)
Musumbert, per doz. \(10-8\)
Onions, Dutch, per


Markets continued Jull, and frices meserally low, iuferio amples, 30s. to 40 s , medium, 4 Ks . to 50s. best Brightlands ramples, 30s. to 408, ; med

\section*{SEEDS.}

Lormox: October y.-Messis. John Shaw Sons, Seed Merchants, of Great Maze Pond, Borougb, London. 8.E. write that French Red Clover-seeds come cheaper. There ia nothing yet doing in Alsyke, White, and Trefoil. Rye-grasses are also reglected. Winter Tares show some improvement both in value and demand. There is no change in Rye Canary-seed is decidedly stronger. Hemp-sed uanltered Blue Peas meet an increaced demand. Haricot Beans are hald for higher rates. Linseed and Buckwheatalso tend upwards.

\section*{FRUITS AND VEGETABLES.}

Bobovail Oct. 8.-Quotations:-Cabbeges, 2s. 10 4s. per tally; Onions, 3s. to 4s. 8d. par bag; Carrote, 1s. 3d. to 28. per dozen bunches; Horseradish, 18. to 18.3 d . per bundle Apples, 2s. to 4s. 6d. ; Pears, 3s. to 7s. per bushel
8prtalifeles: Oct. 8.-Quotations:-Pears, 18. to 1s.6d. per bushel; Cabbages, 58 , to 68 . per tally; Collards, 2s. to 13 do. ; Greens, bunch, 1s. 6d. to 2s. per dozen bunches; Celery Es. to 10s. Ierdozen; Beet, 1s. Gd. per bushel; Carrots, 1s. tud
to 2s. per bag, 2s. ner dozen bunches; Sage, 2s. to 2s, Bd. do. to 28. per bag, 2s, ner dozen bunches; Sage, 2s, to 2s. bd. do.
Marjoram, \(2 s\), to 23 . do.; Winter Savory, \(1 s\), dd. to 2s. do. Miat, 1s. 6d. to 2s. do. ; Sweet Basil, 3s. to 4s. yer dozen Apples, Warner's King, 2s. 6d do to 3s. per bushel.
STRATFORD, Oct. 8.-Qutations:-Oabbages, 23 . to 38 per tally: Savoys, 2s. 6d. to 5s. do. ; Cauliflowers, 9d. to 1s. \(3 d\). per dozen ; Turnips, \(1 s .6 d\). to 2s, 3 d . per dozen bunches; do. 25 s, to 40 e . per ton; Carrots, household, \(3: 3\). to 35 . do.; do cattlo-feeding, 55 s , to 27 s . ed . do.; Mangels, 148 to 16 s do. ; Swedes, 20s, to 28s. do.; Onions, Ghent, \(2 s, 3 d\), to \(2 s .6 d\). per bag ; Dutch do., 2 s . \(6 d\). to 3 s . do. : Apples, Eoglish cookere, 2 s , to 4s. per bushel. do 3s. do. : Apples, Eoglish cookere, \(2 s\). to 4s. per bushel; do., deasert, 2s. \(6 d\).
to 4 s .6 d . perbushel; Scotch Kale, 1s, to 1s. 6d. Marrows, 10 4s. 6d. per bushel ; Scotch Kale, 18. to 1s. 6d. ; Marrows,
\(2 s\). to \(2 s\). per tally; Pears, English, \(2 s .6 d\). to \(6 s\). per flat 2s. to is. per tally; Pears, English, \(2 s .6 d\). to \(6 s\). per flat
Damsons, 1 s . 6d. to 28 , per half-sieve ; Tomatos, English Damsons, 1 s . 64. to 28, per half-sieve: Tomatos, English, 2s. to 3s. per peck; Cucumbers, frame, 1s. to 3s. per dozen; Scarlet Beane, 1s, to 1s. 3d. per bushel, and 1s. 9 d to 2s. 6d. per bag; Beeta, 2s. to 2s. 6d. per dozen bunches Celery, \(8 d\). to 1 s . per dozen heads; Horseradish. 1s. to \(18.2 d\). per bundle : Parsley, 1s. to 1s. 6d. per dozen bunches.
Farringdon: Oct. 10.-Quotations:-Cauliflowere, 2 s. per dozen; Cabbage, 6s.6d. per tally; Collards, 1s. per doz. Celery, 1s. per roll; Marrows, 1s. per dozen; Parsnips, 3s. 6d. per tally; Lettuce, 1s. per score; Carrots, \(1 \mathrm{~s} .9 d_{\text {, to }} 2 s\). per bag; Turnips, \(2 s\). do. : Herbs, \(2 s\). per dozen bunches; Onions, 3s. 6d. per bag; do., Oporto, 5s. 6d. per case; do., Valentias, 3s. per case; Grapes, Almeira, 13s. per barrel; Euglish hot5s. per case; Grapes, Almeira, 13s. per barrel; Euglish hot-
house do., ]s. 3 d . per 1b. ; Walnuts, 13s. per bag; Melons, 14 s . house do., 1s. 3d. per lb. ; Walnuts, 13s. per bag; Melons, 148
to 21s. doz.; Apples, Bleaheims, 5s. bushel; King Pippins, is to 21s. doz.; Apples, Bleaheims, 5s. bushel; King Pippins, \(4 s\)
do.; Pears, stewing, 3s. per half-bushel; Marie Loniee, 8s. per bushel: Canadian Apples, Gravensteia, 12s. 6d. per burrel.

\section*{CORN}

Averages. - Official statement of the average prica of British Corn, imperial measure ( \(\mathrm{qr}_{0}\) ), for the weet ending October 5 , and for the corresponding week in lats jear :- 1890 Wheat, 2 r. Gd Barley, 25 ponding week in lats jear: - 1898 18s. 2d, Earley, Bus. 7d, Onts, Ms.

\section*{ENQUIRY.}

\footnotetext{

A Thirty two Years' Subscriber akk if any of the numerous readers of the Gardeners' Chrowicle, will kindly inform him where be can procure, by parcbase or otherwise, the following old garden plants:-Cuttings or plant of bedding Calceolaria Sparkler, Fuchia Dachess of Lancaster (iight), and Tropmolam elegane or Crystal Palace Nasturtiam, the laut of which wan uned with such telling effect on the terraces at the Palace mome thirtyonix yearn ago
}

\section*{Notices to Correspondents.}
- Owing to the large increass in our circulation, we are under the neccessity of goinp to press some hours earlier. Our contributors whit kindly aid us by sending thetr communclat rench as earlv in the week as possit
Amaryleis: \(G . H_{0}\) W. If you curn to p. 342 in our issue for September 21, 1895, you will find an answer to all of your questions regarding the treatment of Amaryllis.
Ampleopsis Veitchil: L. C, Rugby. The lobed leave and the trifoliolate leaver are simply the retult of unusual vigour. A. Veitchii uader glase produce very large-lobed and compound leaves. The plant, as grown out of doors, has not a chance of developing to the full extent.
Books-Floral Decoration: G. W. A. and I. M. C. We believe Mr. Upcott Gill, Bazaar Office, 170 Strand, W.C., publishes a modern manual on thia aubjoct. A swall one by C.C. Saward was published by the same Office late in the 60 's, but this is too antiquated to be of much uae. A larger work by Acnie Haanard, entitled Floral Decoration for the Dwelling Houre, was published by Macmillan \& Co in 1875, and may be met with at the secondhasd borknhop.-Arboretum. Kemp's How to Lay Out a Garden, published by Messras. Bradbary. Agned Co., Limited, Boaverie Street, E.C.; and H nry E. Milner' The Art and Practice of Land scape Gardening, published by Mess, Simpkin Marbill. Hamition, Kent \& Co., Limited, Stationers' Hali Court, London.-M. Gillett. Villa Gardening, by Hobday, pablished by Mensra. Macmilian \& Ca, Bedford Street, Covent Gar
der, W.C, contains very good directions for cal tivating vegetables in private places.-H.W. My Gardener, by H. W. Ward, pablished by Eyre \&o Spcttiswoode, East Harding Street, London, E.C. will afford just the sort of information on Kitchen Gardening that yca require.
Clubbing in Chrysanthemum Roots: K. J. G. The c:ubbing of Coryanthemum roots has in some instances been proved to be caused by the use of unevitable manare, and the example examined in probably to caused. Eolwoimg and fangi are abren?. G. M.
Dendrobick; Wahimanum and Nobile: W. S. The plants are enffernge from excess of water at the root, and they have probably lost many of their roots entirely, or these have rotted from the point a short diatance. An examination of the roota is very neceseary. If these ere foand to be decayed, wash what remains after decayed portions are cut away, and insert them trmporarily in pitp, chieflg filled with clean crocks, and jut a maall smount of ephagnum-moss, keeping them in a moderattly warm moist house, and lightly syringing them once or twice a week. In the apring proper petting or baketing may be done.
Fasciation in Antirrbinom The Sarrey Seed Cu. send a photograph of a plant in this condition which is very common, as a result probably of overgrowth.
Four Glass Houees, each of 150 feet long Cyclamen. It is of no use attempting to caltivate French Bean by cool treatment. Nothing leas than a day temperature of \(70^{\circ}\) to \(75^{\circ}\), and night ditto of \(60^{\circ}\) will anffice. You might grow Tomator, but it will be necessary to obtain by purchase robust plante, and plant at once ; also Cucumbers, chooning a mediam-sizad early prolific variety. Those should now be in the beds if for very early fruiting, though for auccesaion later plantiage would do. In these forcing houses you might grow Rhubarb, Rowea, Lily of the Valley, winterblooming Bagonias, early Narcisas, and other Datch Balbe; Gardeniar, if clean plants can be obtained; Rhododendron hybridum, Eacharis, Myraiphyllam, Lsgodium, Maidenhair Fern, Mustard and Cress, \&c.
Grapes and Applbs: C. W. H. The Grapen are shanked, the causen of which malady are varioun; such as losn of roots through a noddened, badly drained, or pasty soil; roota growing low down in a deep border way from the active agency of of the folisge byping; and andden lows of much We would advise improper thinning of the shoots. roots. The Apple have early examination of the roots. The Apples have probably been injured in
the young atate by hail. Graprs sot Cotoremo

fail to finioh. Banch and berries are of good size, They require to be atarted fairly early in the season, and must be given plenty of heat. In this respect they require just the same treatment as Muscat of Alexandia.
Insects: \(G\). \(A\). The name of the beetle is Oiibrua æыеиs. R.McL.
Mushrooms: A Subscriber. We do not suppose that Mashroom would not grow on manare from horsen fed largely on Thorley's Food, bat the crops would not equal what would bs obtained from corn-fed animals, Perhaps some of our reader will kindly state their experience.
** Plants, Fruirs, exc, to Be Namkd. The applications to name flowers, and especialy fruit, are so numerous
at this season as severely to taic our resources. They entail an expenditure of time, labour, and money, of which our readers have no idea. We are alwxy willing to oblige our
correspondents as far as wec ma , but the editing of the Gurdsmers correspondents as far as we cha, but the editing of the G ardeners Chronicli is our busimess, to which everything else must give way Correspondents are respsctfully requested to observe at a time. that not more than six specimens cacej be act on the part of the If more are sent, it wou d be a qraceful act to the Gardeners Orphan Fund. Correspondents sending plants or fruits to be Orphan Fund. Corressonens demanding time and research for nomed, or ortion, must not expect to obtain an answer to their enquiries in the current week. Specimens should bo goos ourie. carefully packed and numbered.
Names of Fruits: W. T. H. Your aecond attempt is a greater failure than your first. The card-board box and Apple arrived quite flat, and the wonder is that the letter was not lost. We shall not be urprised if the Apple proves to be merely a local variety.-J. T. O. 1, Gloria Mandi; L, L Ird Derby; 3, not recognised, much bruised; 4, Duyenné du Comice; 5, Chanmontelle; 6, Napo-léjn.-Alpha. 2, 5, Beurré de Capiaamont; Beurré Clairgeau; 1, Beurré d'Amanlis; 4, Triomphe de Jodoigne; 7, Beurié Diel (thanks for aubscription to the Gardeners' Orphan Fund, which has been sent to the Secretary).-E. G. Allen Unknown to us, most probably a purely local variety.-W. H.D. 1, Hollandbury; 2, Emperor Alexander; 3. Hawtnornden; 4. O.d Nonpareil; 5. Blenheim Órange; 6, Karry Pippin.-P. J. 4, Fearn'u Pippin; 5, King of the Yippins. Oubers unknown, worthlest. -T. S. 1, Stirling Catle 2. Eymuad Japp; 3 Callini ; 4, Datch Mignonne 5, Waltham Abbey Sueding.-Sherrington. Pear Chaumontelle. - W. For. Pear Fundarte d'A'a tomne.-J. D, Bracknell. 1, Lonuise Bunne; 4 Fondante d'Aatomne; 5, Jeraey Gratioli, 7 Marie Louise (gour box was too shallew
and the fruits were injared) \(-K\). J. \(G\). Bedfordahire Foundling; 2, Qreen Caroline 3. Kirry Pippin; 4 Beaaty of Kent; 5 A S. Harvy, Highgate. Yuar Pear is a stowiong variety, Uprdale's Nis Germains, and never becomes melting. -W. H. Garside. Apple, Emperar Alexander; Pear No. 2, is Marie Louise; : 3 L Luipe Binne of Jeramy.-J.S. 1, Urbaniste; 2, Cul Vaughan; 3. Marie Luaise; 4, Gravenstein; Pear, Alchorp Crasnane. C. Harlock. Your Apple is Fearn's Pippin.-S. N. 1, Beurré Diel; 2
 Maréchal de la Cour ; 5, Betty Gseson; 6, Gioria Mandi; Peachen shoald not be packed with Apples or Pears, they were past recogaition.-W. \(A\), Apple, Allen's Everlasting; 2, Karry Pippin; 3 l'ear, Williams' Bon Chrésien; 4. Durondesu; and 6, Bearré de Capiaumont.-Joe. 1, Holland. bury; 2 and 12, not known; 3, Fearn's Pıppin; 10, Emperor Alexander; 8, Lord Saffield; 9, Pineapple Rumet; 11, Fearn' Pippin.-G. F. F. 1, not recogaised; 2, Dake of Devonshire; 3, Hambledon Diax Ans; 4, Smart's Prince Arthur. [We wish all our correspondent would pack the frait they send as carefally an you have done, and enclose particulars of each variety, together with shoots and foliage.]-G. H. Your Plams were packed badly, and in too small a box. It you send again, you should enclose a shoot of the variety.
Names of Plants: Correspondents not answered in this issue are requested to consult the next number.W. Maxwell. Send another specimen; box quits mashed in transit.-S. W. Apparently the Casmpignon, bat it was shrivelled. The other is the spawn of some fungus, which we cannot name in ite prenent atate. -P. \(H\). Fraxinus excelsa mono phylla.-A. S. Cratægu: coccinea, \(-N\), C. 1 Solidago virga aurea; 2, not recognined; 3, Pulygonum aviculare; 4, Epilobium parvilorum. R. N. 1, Farfugium grande; 2, Francoa ramona; 3. Dieffenbachianobilis; 4, Acalypha Ma?afeeans
, Anthericum lineare variegatam; 6, Fittonia Pearcei.-E.J. Aberdeen. 1, Pellionia Daveanama
 nica of gardena; 4 Selapinelia circinain; 5 , Sela-
ginella denticulata; 6, Selaginella K ginella denticulata; 6, Selaginella Kraumians anrea; 7 , Anthericum lineare variegatum; \(y\) The above names are correct, we believe; bat the specimens nent are very imperfect.-E. \(H\), The common Tree Onion. Plant in March, \(-\sqrt{1}\). Salvia elegans.
Payina Crops undre Glass: A. B. See our aamm to Cyclamen. In regard to your other quention, everything would depend apon your having good marketable prodace which you could put on th market at little cost in carriage, and in fivt condition. Some men would make a gool hiviag out of a glass-house, 100 by 9 feet, whilat athm would starve. We cannot alay what the retman would be from 900 square feet of Stephanotia millo managed, and coming in early, but they moald represent a large sum of money.
Persistent Attacks of Mildew on Roses: P. R. There must be nomething amise with the woil on which the house stand ; perhaps it is not drained, and the soil being retentive holds much water, and in that way favours the spread of milden. Mildew often attacks Roses in hoases when the air is cool and moist, and again when air is admitted as or near the level of the ground. It in always prudent to ventilate as much as ponible at the top of the house. Oa warm dry soils and aituations it is of little consequence how air is admitted. The common Burberry is a dangerom shrub to have near Roses. We wonld adrive the constant use of alphar as a powder wheremith to dust over affected plants, and as a matery nolntion to keep in broad hallow ancers placed aboat the houne.
Rating of Trade Glasshouses: \(D . K\). Tie amell ment on hoases actually employed in the culim: tion of plants, fruits, \&c., for sale parposet, it one-fourth of the unual amount levied. Sie cman of Parser \(v\). Wurthing Local Board, in cuc iumt for March 26, p. 422 , vol. i., 1887, and May 21, p. 650, same vol.

Roses in an Exposed Garden: H. W. Unien you can afford the plants the bent of shelter from the prevailing sea-winds, the Roses will not pir atiafaction. Taick, high hedges, and namor plantations of Maple, with Holly, Rhododendron, Lzurel, I)aphne Mfzereon, \&c., kept as low bublen are better than walls. Given shelter, at a disanam of 10 to 15 yard from the R se-bedr, any section of the Ruse should do well.
axifraga granolata: W.C. Put the piants fraly in a mixtare of loam, broken sandacone, and sid small quantity of old mortar, uaing amall inatio pots, asy, \(60^{\prime}\), and winter them in a coll pili, ore plasted out-ofodeors in March
be planted out-of-door in March. ine Root: A. Roberts. Not Phyllozera deratus but an excreacence due to abome from front. The Vine muat be very old.
Vines and the ose of Richards' XL All Vapobigrs: J. W. M. The nee of this insecticide is norr injarious to plante of every kind, if ared accon ing to the direction given, and we are been aware of any case in which Grapen bay homerl,
injured by it. As a matter of pradence, injured by it. As a matter of pradence, apprascings it should not be used on Grapes appro of the ripenea, When the Graper are
Communcations Received. - J. W. Wilkinson. - B. G. Bi letter card forwarded on day of its recaipt. -J. Mo Bo - Mome.

 R. M.-F.J.-R.A. R.-J.J.W.-R. Y., next wek

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Sons, Readiug, begs to inform the trade te is Sons, Reading. begg co ierform the trad is open to accept th appointment from any firm requiring the services of a pro tical Mm_ -- All communications on and after the abore nifith


TEWAKD and HEAD GAKDENERWANTED, by a practical Mad, of life experience, Bole CHARGE of an EsTATE. Thorougbly underotuen Farming, Gar ening, Forestry, Draining, and the managma of a large st,ff of men. Kiscellent testimonials.particulars on application to C. WORSLB1,

\(G^{A}\)
ARDENER (HEAD); age 37, married -T. HOBD \(\triangle\), late Gardener to tine Earl of Yarborough desires engagement with Lady or Gentleman. Highest it practical and trustworthy. Life experience.
ferences.-T. HOBDAY. Clarence Park, At. Alban.
GARDENER (HRAD), age 37, married, no Pamily.-Gentleman with conadence recommendi -G., 2. Southwood Lane, Highagate, \(N\). \(\qquad\) - 35 .
twenty
CARDENER (HEAD).-Age frem, years' experience in all branches in firstcian , Hintle sin yeara in las
ham, Ipswi :h.
GARDENER (HEAD) - Having had oharge ol large gardens, growing Fruit and Flowerr for aeallow wishing to turn their Garden to a profitable sco.
E. DENNING, Pasbrooke Gardeus. Titch field, Hanth.

GARDENER (Hrad),-J. H. Plath, Eeq Trustwarthy and has anorough practical arperien HOMTRI tranches. no chldren. Excelient references.... Dene Park, Tonbridue.
AARDENER (HEAD Working), or whero O belp is given-Mrried, no family; thoroughil) coilpo tent in all branches. Goyd releroaces. No cirealari Compton Lodge, Moor Park, Farnham. No cirgann

GARDENER (HEAD Woriting),-Age 40, married: thoroughly, practical in all branches of Gar
 Coney Weston. In wortho vuff ilt
G ARDENER (Hrad Woringa, or good
 Gardener (Head Working):

G ROWER. - Advertiser (ago 24) desires Vines, Oucumbura Tomatoes, do. Good reterences. - J. MARTITN, a, Nagrs Bead Rodd, Po ider's End
G OUD SECUND, or FUREMAN, or JUURNEY Y \(\triangle N\) (Frayt), -Eleven jeard ex perionce. E

\section*{\(\pm 5\) \\ BONUS to anyone assisting advertiser in} obtaiaing an apprntment ay HEAD gARDENER or Life experience : cight yeara in preseut place \(\frac{\text { family. }}{\mathrm{H}}\), gily
 Wickham Marlet, suffoll.
\(G\)
RUWER.-Age 27 ; ten years' experience in
 Araene, Hampton Hill. Míaroleseax.
\(\mathbf{R}^{\text {OSE-GRUWER, Inside or Oat. - Thoroughly }}\)

G ROWER,-Age 28 ; Ferns, Palms, and C. ROOPER, 37 . Testertifou Street. Noting Hill.

\section*{To Nurserymen}

M ANAGER, FOKLMAN, or TRAVELLER -Seveevteen yeara' experience with good firms. Well


II

\section*{To Growers of Frult, Cut Flowern, ac.} NAGEK,-Advertiser, many years' expeas above with a Gentlem m in intending to Grow largely for Market. First, el 1 se Cut Flower, Fruir, Tomatos, Cucumbers Plants. \&e. Well up in routioe of London and P, orincia Markets. Higbest references. - ENRRGY, 41, Wellington Street. Strind, W.C.
FOREMAN and GROWER for small Nursery

FOREMAN, Inside-Age 23; nine years F good practical experience in Score and Greenhoue 14, Roal yn Road, Redland, Bristol.
FOREMAN or MANAGER. - Life experience


\section*{FOREMAN.-Age 26; good experienoe in} Plant and Frait Hoow, and General Garden Work.


FOrEMAN.-Johe Croor, Forda Abbey, Ohard, can with confi ience recommend man- age 24,
has lived with him two years, and given every antisaction,

FOREMAN, in good Establishment. - Wm Lewis. gardener to Thoe OLiterson, Req. Esst Sutton taplehurat, Kent, highly recommends R. Bashford as above. Seven years' practical experience Inside and Out.
Apply as above.

HOREMAN, Inside.-Age 27; experienced in Stove and Greenbouse Planta, Mrchids, Vines, Figz Peaches, Melona, Cucu anbers, Chrgsanthemums, \&C, Goud retrences. Previousy Forem

FOREMAN, Inside-Age 28; four: een years experience in Plant and Fruit Houses, \&c. Previously Westwell, Ashord, Kent.
JOURNEYMAN (First), under Foreman.Joskpe Forgex, Stanford Hall Garden, Loughborougb, bighly recommend his son, are 24, to syy Gardener re

JOURNEYMAN (INsIDE), in good Nursery Age 2o, s-ven years experience io Market Nursery Work;
recommended. Wages no otiject. - H, HOLMEs, Normandy, Guildford.
JOURNEYMAN, Inside and Oat.-Age 22;

OURNEYMAN, Inside, or Inside and Out.-
J Mr. BEEDEN, Taybergh Park Gardens. Rotherham, can trongly recommend young Man, ake 23. Who has been with him eighteen monthg as above. Life experience
JOURNEYMAN Inside,-Age 20; requires \(\int\) silaystion ander a good practical Garde er, strong:

JOURNEYMAN, or Undrr.- Young man,
 Thoroudhty pract cal, and excelllent char
Xingates, near Whitwell, Lue of Wight.
JOURNEYMAN, in good Establishment-
 Gardean, Maidenhead.

OURNEYMAN, Inside, - Situation wanted,
 ous, croone Court. severn Sture, Worceater.

JOURNEYMAN (Finst), in large eatablishment, or FORRMAN where three or four are kept.den.e rec ummend young \(M\) in, age 24 , as abjure

\section*{To Nursergmon, Gentlemen, or Landscape Gardeners.}

JOURNEYMAN, practioal, Insidd and Out.-
 Froraary, -K. LUNDB'AD. Garten Tecknike

IMProver.-Mr. Berden, Thybergh Park Gardens, Kotherbam, cam atrongly reoommend Youth, age 18, as above. Been here twelve monthit Three years' experi ince. Bres ing-up cange of learing.
IMPROVER.-Age 19; situation wanted, in Gommended. Gool references. Total sbstainer.-GAB. IMPROVER or JOURNEYMAN,-Situation
 1, Rogal Naval Cottages, Penge, surrey
LEARNER.-Young Man (age 19) seeks Establithmentiont. Six montho' expuerie "cto Worls for board


\(\mathrm{T}^{0}\)O HEAD GARDENERS.-J. STANDish 2a co can confdently recommend abyoug Man years experience under Qlisss.- Royal Nurveries, Atcor.
TO GAKDENEKS.-A young man requires
 Throe and a hali yeard gro1 charicter. H1
preferted, \(-J\). . 34 , Lulot Stroet, Highkate, \(N_{0}\).
TO NURSERYMEN.-Young Man, age 24, Erred. Requires situation in Mirthet Nursery, near London pre ferred. Nine yearrs experience, good character; used to
forcing Bulbs and
general Nureery worls A. ARATS

\(T\) O NURSERYMEN. - Situation wanted by a young Man. Has been used to Growing Cumanbers, Tomatos, and Out-door stuff fur Market. Twelve, month tin
B Jubbing Nureery.-Sta'e wages to GARDENER, Cobnor House, Chidhsm, near Emsworth, Hants
\(T\) O NURSERYMEN. - Yoang Man, age 24, of the Vallev and Tuli py. kec. \(;\) also in © Oucumbers and Tomatos. -F. W., Loft Lodge Saffron Walden, Esoex.
TO NUKSEKYMEN. - Young Man, age 25, Glase, Wreatans and Coros- work, quick at potting, tying, otc.J. B... Botheas Vila, Upper Parkstone, Doreet.

TOFLORISTs and NURSERYMEN.-Advertiser wi-bes to pluce his sonn, aged 15 ( (just left scoool), Where he mould learn the busineess, and hive a comfor table

TOGARDE
C seake situation as TMPROV young man (age 19),
experience.-J. sTOTE, Pike's Hill, Lynd burot, Hante.
\(G^{\text {REENHOUSE FIXINGG: - Wanted, by two }}\)
object. Eetimates given for whole job - SCHAGAT AND
UCAS, \(3!\) Rowe
D A IR Y. - Re-engagement required to a excellent But ter-malker, Cream, Cheese, \&ce Good referena Would undertale Poultry, -Mrs, K, West End, Ebbesbuurne, Salisbury
SHOPMAN, or Seed Trade \({ }_{\text {wanced }}\) Ter - Situation Wand Reed ; ten years' experience in the largest Wholesale and Retail Firms in the United Kingdom. Kzcellent
ences. \(-C\), care of Charles sharpe
SHOPMAN or SECUND.-Eleven years' expencerience in all departments of trade. Firrutelaesi refor
rences.-CARNATION, 11, Wellington Street, Strad. W.C.
A SSISTANT SHOPMAN.-Age 23; five


\(\mathbf{W}^{\text {ONDERS WILL NEVER CEASE, we are }}\) PILLS are the grentest wonder of madorn timees. They correet bile. prevent fitulency, clesnse the liver, and purity the ystem, streagthen the stomen. incress the apperite, invigorate the nurven, promote health. and reiustate thm weak to an ardour of feeling never befure experience
these P.Als throughult the Rlobe astonishes pearybody, cunvincing the most sueptical thit there is no mofticine ryal to to the human race. Ther are indeed a blessing to the attlicted and boon to those who auffer from disorders internal external. Thousnads of persons have testified that byal of use alone they have been restored to health, after other remedies had proved unsuccenful.


\author{
POBT-FREE,34.
}

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ILLUBTRATION8
Brunsvigia Josephinge Hödson's hcuse at
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\section*{NOTICE TO ADVERTISERS.}

In consequence of the alteration of the hour of going to Press, consequent on the large increase in the circulation, ot is imperative that all Copy for Advertisements should be received BY FIRST POST THURSDAX MORNING at the latest.

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H. CANNELL AND SONS, whose Collection H. in well known to be the largest, completest, best kept, and moat intarest iog is io splendid bloom, a number of entirely now mhapee and colours of great promise, and of the swaniey
 invited to bee our mag

SWANLEY, KENT
\(\overline{\mathrm{O}^{\text {R }}}\)
RCHID FLOWERS. - 20,000 for Sale.

THE BEST HYACINTHS for PotCulture and 1 for Glames; Tulips, Daffodils. Liliums, Irises, Anemonew, Crocues, Scillas, and all other Bulbe for present and leter planting. See our CATALOGUE, No. 45 s, free on application

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The Best Prement for a Gardener.
VINESAND VINE CULTURE. The mont complete and exhaustive Treatine on Grapes and their Culture ever published. Thind Fdition just out.
Frice \(58 . j\) poet free, bs. 6d.
A. I, HAREON, Foyal Forticultural Society, Ohlawiek.

CARNATIONS, - Extra strong layer Germania and Reynolds Hole, 20s, par 100 ; Malmaicons,
 1000 OHRISTMAS BOSES, good clumpe.

EAUTIFUL BEDS of TULIPS

SUTTONS' INIMITABLE BEDDING TULIPS-Single E'irat Early, for flowering simul taneounly, White, Yellow, Scarlet, Rose and White (striped), each. 2s. Der dozen; 148 per 100 .
CUTTONS' INIMITABLE BEDDING TULIPs, - MP. J. M. McHattie, Gavdener to His Grace the Duke of Wellington, ays :-" The Bedding Tulips made a most brilliant show. They lived through the exceptionally cevere winter, when all our Walnhowers were killed, and they now help us in the way of cat flowers in the place of imasine oar losen
SUTTON' BULBS GENUINE ONLI DIRECT FROM QUTTON AND SONS, THE RUYAI GEEDSMEN, READING. Important to Planters.
J. C. WHEELER \& SON'S AUTUMN CATA LOGUE of Fruit Troes, Roses, Forest Trees. Evergreens informetion as to the monet profitable varieties to grow, and the beet time to plant them, for warded, post-free, ou application. J. C. WHRELER AND BON, Kinwholm NMreary, Glowcentar

NOW is the TIME to PLANT PYRETH BUM8, Gaillarias, Delphininms, and Proonieo. talogue of KELW AY AND SOK, Langport, Somerset.
RARR'S WINTER \& SPRING FLOWERS. 1 See Illuvtrations, back page. Garal. Chron. Sept. 7,1896 GENERAL BULB CATALOGUE, free on application. ENGLISH DAFFODIL CATALOGUE. free on application. CATALOGUE of HARDY HERBACEOUS PERENNI ILS. CATALOGEE of HARDY
AACII.-Imported and nursed recommended. UA H, ZEI \(\triangle 8 O\) LD, Leipzig. Glockenstr. 13. Price List forwarded on application.
New and Choice Hardy Bhrubs.
DAUL \& SON have issued a small descriptive CATALOGUE of these with their Rose Catalogue Post free from the Old Nurseries, Cheshunt.
SUPERB ORCHIDS, CHEAP.-Thousands P. McARTEUR, The foomdon Nursery. 4 , Maida, froeio. Loodon, W. NEW SPINELESS GOOSEBERRIES. Ooloured Plate. Price List, History, Copy of Testimoniale, \&c., from W. RUSHPORTH, Nursery Mount, Leeds; or
from the sole proprieton, LETELLER \& SON, Caen. France.
\(W^{\text {ANTED, }}\), 0,000 OALCEOLARIA W. TYLEK, I17, Angel Road, Edmonton.

W anted, golden gem calceoLARIA CUTTNYGG. Lowest price per 1000 for cheh,
to A. HART AND EONS, 182, High Etreet, Guildfond.
W ANTED. - Loxford Hall Strawberrien, Ghiesbregtinpa, Double Primula in Variety. Offers to J. L. B.G.

WANTED, old BEDDING GERANIUMS W ANuen of the Bolkians, in exchange for either Marrhal MacMahon, Mrs, Pollock, Vesavius, Went Brighton Gem, Double Scarlet, John Gibboas, or cuttinas of same.
C. D. BUSS, The Nuneries. Smesth, Ashtord, Kent.
W A T ED, Mrs, Moore and Boule de

\(\mathrm{W}^{\text {ANTED, D D warf.trained PEACHTRESS }}\)
 Hick

LINDEN'S ORCHIDS.-SAles by Atction, In Iondon, are held on the First and Third Thursdav in sech Month, at Mr. J. C. STEV ENS' Great Rooms. 38,

\(\mathbf{M}^{1}\)R. ROBERT SYDENHAM'S BULBS are sent to nearly every town in the Unitod King dom, and are acknowledged Ly all to be the best and finest in the
 per dozen. \(40 . \mathrm{s}\). per \(100 \%\) Golden 8 spur, 25 . \&d. per dozen. 188. per 100. Hyacinthe for oxx iibition ang apocialty. Ten per cont. disoount on alli orders orere th. Full Litit on application. Tenby Street North, Birningham.

\section*{A}

A SPARAGUS, for Forcing.-Five years old,
 makes top price at Covent Garien.

\section*{important to Mughroom Crowers.}

CUTHBERT"S SPÉCIALITE MUSHROOM UsAWN. Always alike; most productive. Hundrede f teotimoniall. Per fushel, bs.
. \(\angle\) GD CUTHBERT Seed, Bulb, and Plant Merchanto
To Chryanthemum Exhibitors.
TIDY'S Patent CUP and TUBE is the Best. Watertight. No plugar Water raised with the bloom. W. E. TIDY, Brock hampton Nurseries, Havant.

\section*{To the Trade.-Ferns.}
H. B. MAY offers FERNS in all sizes, 1. leading marlet eorts. Special quotation on applileediny market sorts. Special quotations
ILLIES OF THE VALLEY-I beg to offer firnt-class Forsing Crown for delivery early in Novem ber. Rarly orders respectfully solicited. Pricee per 100, 1,600, 10,000 or 20.000 , on application to-
T. JANNOCH, Derningham, King's Lyna, Norfoll
\(\mathbf{F}^{\mathrm{OR}}\) Sale, Narcissus (Sir Watkin) Lrue, first size bulbs, 3s. per dozen, 22s, \&d per 100 .
Mpply to GARDENER, Plas Gardens, Dinas Miwddw,
Merionoth.

CARNATIONS.-Self colours a speoial feature. Cor Malmaisone, beautiful soft pink var, good stuff, ready or floweriag. Pocs, 128 . to 18s. per doz. bluan var., 9s, to 12 per dozen, send for Catalogue.
chis. A. YOUNG, Floral Nursery, Weat Derby,

CEAS. A. YOUNG, Floral Nursery, Weat Derby.
TO THE TRADE.-Aralia Sieboldii, strong, Carh with order.
OLTNGTON and SON, Nurserymen, Bary \(8 t\). Edmunds.
HOR ORCHIDS of every desoription at apply to- I. ITWLS \(\triangle\) WD OO, Southgate, London, 1 . PRIM ITST free.
NURSERYMEN amd OTHERS REQUIRING high-clase OUT FLOWERS and PLANTS onn be supplind at r (onable terme by writing to M. C. \(X\). Wellingto Street, Strand, W.C.
B E E S O N'S M A.N U R E, W. E. BRESON, Carbrook Bone Millw, ghemeld.

TTORTICULTURAL BONES.-Pure Bones, U in 4 , linch, and mesl, opecially prepared. For Eticulars and price apply to-
E. WICNS AND LEWIS, Bone Works, St. Albans.
T WEEKS \& CO., Hortioultaral Bailder - to Her Majesty. H.R.E. the Prince of Wales, H.M. Government, Admiralty Dept.o War Dept., Royal Hort. Soc., Royal Botanic Soo., Parks and Public Buildinga, Patenteen of the Duplex Upright Tubular Boilers, Kine' Romd, Chelsea, 8. W.
Tolegrapl Addrees, "Hortalanus, Loadon" Telophone,No.872e,

\section*{SALES by AUCTION.} DUTCH BULBS-DUTCH BULBS.

\section*{gales nearly every day, in Large and Sman} Lots, to auit all Buyers.

MR. J. C. STEVENS will SELL by AUCTION, at hia Great Rooms, 38, King Street, Covent Garden, nearly every day, at half-papt \(120^{\prime}\) Clock, first-class cons goments of Choice HYACINTHS, TULIPS, CROCUSES, NARCISSUS, and other BULBS arriving daily from
known farma in Holland, in the finest poseible condition. snown farms in Holland, in the finest poseible conditio

On viow morning of 8ale, and Catalogues ha

\section*{WEDNESDAY NEXT}

GREAT TRADE SALE.

\section*{A aplendid Importation of small, beautifully-grown} ORNAMENTAL SHRUBS,
For In or Outdoor Cultíration, just received from Holland. 20,600 Best Berlin LILY OF THE VALLEY CROWNS, just over.
1,000 choice named Standard, Half-Standard, Dwarf, and Climbing ROSES, including many of the newest and beat morte, from leading German and Dutch Growers,
500 fine Bulbe LILIUM HARRISI, from Bermuda: several ANEMONES. Also-
500 AZalea INDICA, well furnished with Buds; a fine variety of Decorative PALMs, DRACENAS of several vorts, and other Plants, consigned direct from Ghent.
5.000 SPIREA JAPONICA, S. PALMATA, white; S. PAL M!ELYTRA SPECTABILE, \&c.
5,000 ROMAN and ITALIAN HYACINTHS; 2.580 Paperwhite NARCISSUS, from France, for eariy forcing: and A SPECIAL COLLECTION of EXTRA FINE HYACINTHS. compriging most of the best sorts, specially seleeted CROCUSES, rare NARCISSUS, SNOWDROPS, \&c.

\(\mathrm{M}^{\mathrm{B}}\)R. J. C. STEVENS will SELL the above by \(\triangle\) UCTION, at his Great Rooms, 88 , King Street, Covent Gariten. on WEDNE3DAY NEXT. October 23, at

\section*{Thuraday Next.}

IMPORTED and ESTABLISHED ORCHIDS. At half-past 12 o'Clock precisely.
dendrobium deareir, grammatophyllum mea OIRESIANUM, AERIDES LAW KENCEE, AERIDES S A NDERIANUM, fine plants of ONON LOGLUSSUK GR aNDE, some lybrids, and other Imported and well-
grown ORCHIDS. Also ORCHIDS in FLOWER and an IMPORTATION of ORCHIDS from the WEST INDIEy, received direct.
At 2 o'Clock precisely.

At 2 o'Clock prectsely
BULBS and PLANTS from HOLLAND, A variety o! LILIUMS, choice NARCISSUS. Forcing Bulbs, do . J. C. STEVENS will SELL the above by AUCTION, at his Great Rooms, 38, King Street, On view morning of Sale, and Catalogues had.

\section*{Monday and Thursday Next.}

PLANTS from BELGIUM-FERNS, PALMS, ROSES,

MESSRS. PROTHEROE and MORRIS will SELL by AUCTION at their Central Sale Rooms, 67 MONDAY NRXT, October 21. - A consignment from Belgium, comprising 250 Azalea indica, :50 A. mollis, and 50 Rhododenronst 0 Iots choice Stove and Greenhouse Ferns and others, quantity of Doffodils and Narciseup, several hundred stanoard hall-atandard, climbir g, and Tea koses, Clematis, Ivies, green and variegrated; Jarmines, Euonymus, and other shrube for
TEURSDAY NEXT, October 24,-100 Azalea moll: 100 A adica, 36 Rhododendrons, 50 Retidosporas, 10) Euonymu. 100 Cyrtomiums, \({ }^{2} 0\) Aralias, Palms, Dracenas, Laurestiaus,
and Cupres.us from Belgium,

MWoking, surrey.-Without Reserva. ESSRS. PROIHEROE AND MORRIS are instructed by Mesara, \(H\), \& C. Cobbett, who are compelled to effect an immediate clearance of a large portion of
ground, to SELL by AUCTION, on the Premisea, the Horell Nurseriee, Woling, about a mile from Woking Railway Station on TUEEDAY, October 29, and two followi ig days, at 12 o'Cloek precisely each day, several Acces of well grown romoval, comprining a large quantity of Border Shruba, in
 Yeotarine, and others; 30.000 pples, Pears. Plumas, Peaches,

 Trees: lu, 100 Prait and Maneti Stocks, and Flowering Haxdy Azaiceas, and other Stock.
may be viewed any day prion
be obtained on the Premioe, and of the Auctioguee may

\section*{Friday Next}

By order of W. L. LEwIs \& CO., Southgate, N. IMPORTANT SALE Of IMPORTED and ESTABLISHED ORCRIDS.
CATTLEYA HABRISONF, including many fine masses. SOPHRONTTIS PURPURE
CATTLEMA SPECIES, of the Labiata section, frem quite a new district, and is probably new. AlsoCONCOLOR, O. VABICOSUM ROGERSII, O. GRISPUM GRANDIPLORUM, in extra strog plants, fe. in grand CATTLEYA MENDhLI, C. TBIANELI, C. MOSS LELIA AUTUMNALIS ALBA, ODONTOGLOSSUM KRAMERII, choice CYPRIPEDIUMS, \&c.

\(M^{1}\)ESSRS. PROTHEROE AND MORRIS will SELL the above by AUCTION, at their Central Sale Rroma, 67 and 68, Cheapside.
October 25 , at half-past \(120^{\prime}\) 'Clock.

\section*{On view morning of Sale, and Catalogues had.}

\section*{Friday Next, October 25.}

IMPORTATLON of RARE ORCHIDS, just to hand, collected in unfre
CATTLEYA CANDIDA (Koth), C. CHOCOENSIS (Hort.), one of the largest and most fragrant of the C. labiata crimson lip, but some pure white forms were collected in flower.
STANHOPEA LEGMANNII (Kränzlin), a magnificent new S. platyceris.

ODONTOGLOSSUM ASPIDORBINUN (Lehm.), one of the ODONTOGLOSSUM DENTICULATUM (Lehmi), n. sp.
ODONTOGLOSSUM RAMOSISSIMUM, of a grand strain.
NCIDIUM SUPERBIENS; the fine purple and yellow
ERIOPSIS RUTIDOBULBON, and various other probably ERIOPSIS RUTIDOBULBON, and Various
Also, from another source, some fine masses of the elegant
white DENDROBIUM LINGUAFORME, DENDROBIUM White DENDROBIUM LINGUAFORME, DENDROBIUM TETRAGONUM, \&c

MESSRS. PROTHEROE AND MORRIS will include the above in their SALE on FRIDAY October 25.
On view morning of Sals, and Catalogues had.

\section*{Friday Next}

Magnificent GLOBR OE CORAL, 4 feet 6 inchee in circumference, very tastefully arranged; valued by an expert at PLANTS," by Robent Wamer, now ont of print, and originally sold at five goineas each. ESSRS. PROTHEROE AND MORRIS will include the above in their OROHID SALE on FRIDIX October 25, at balf-past 12 o'Clock.

\section*{Seakale.}

SUNNINGDALE NURSERIES, BAGSHOT

MESSRS. PROTHEROE AND MORRIS will include in their SAL\& by AUCTION, at Mr. C. Noble's Nursaries as above, on MONDAY NEXT, Octob +r 21 , an 1 each
of the FIVE FOLLOWING DAYS, sevaral thousand crown of FOR ING SEAKALE, in lots of 100 and 500 .

Two Days' Sale.-Tottenham, N.
Adjoining the Tottenham Hale Station, Great Eastern Main Line.
Mr. Ware's GREAT ANNUAL SALE of immense quantities of

MESSRS. PROTHEROE ANd MORRIS will cle by AUCTION, on the Premises, The Hale Farm Nurseries, Tottenham, N.. on TUESDAY and WEDNESDAY, Cctober 29 and 30,1895 , at 11 o' Clock \(p\).
2500 ROSES IN POTS, EXTRA STRONG, of the bost sorts.
100,000 Carnations and PICOTEEs.- Named sorta in pots. consisting of the very best varietie in cultivation, both REE CARNATIO
TREE CARNATIONS in variety, fine plants in 48 -pots
50,000 DOUBLE and SINGLE TUBEROUS-ROOTED BRGONIAS. - Probably the finest Collection in the world, and a apecial feature at this Nunery. These will bn offored both in mixture and selected to colour. The tubes
are remariably strong and fine, not a bad variety will be are remariably atrong
50,000 CLEMATIS and AMPRLOP3I, and other Climbers ; 100,000 SEAKALE 10,000 IVIRES ASPARAGUS
stuff. Both theae are grown by Me. Wiat ang foroing quantities at Tottenham and elsewhere. The season has suited the growth of both remarkably well, and Mr. Ware states that he never had thema so fine.
25,000 HOME-GROWN LILIES. Of these, Mr. Ware holds one of the large t collections in the trade. All the Bulb, offered will be of good size, perfectly healthy, and such as cannot fail to give ratisfaction.
0,000 BERLIN CROWNS LILY OF THE YALLRY.-These are exceptionally fine, being of the true Berlin or beat forcing variety.
FORCING PLANTS and BULBS, in endless variety.
200.000 HERBACEOUS PLANTS and MISOELLANEOUS BULBS.
HOLLYHOCKS, selected to coloar. CARTSTMAS ROSES, Double and Siagle PYRRTHRUMS, PINKS, DELthoasande of other PLANTS, TREES, and SHRUBS, in great variety, including a large quantity of pOPLARS suitable for forming Soresna, broad-leeved PRIVET, flos The Stack miy.
Catalogues may be had on the Premiseas and of the sale. Catalogues may be had on the Premises! and of the Auc-
tioneers. Land nad Eatate Agents, and Valuere, 67 and 68 , Chespeide, London, E.C.; and Leytonstone.

\section*{Sunningdale, Berks.}

SIX DAYS' UNRESERVED SALE of exceptionally Sale held at this Nursery for mang the most importer Charles Noble, including a portion of the unigne of 1 ll . of Specimen RHODODENDRONS, and manique collection Golden RETINOSPORAS and HOLLIES.

MESSRS. PROTHEROE and MORRIS vill SELLL by AUCTION, on the Premises, The Mrmell Sunningdale, close to Sunningdale Station, and within wint distance of Bagshot. S. W. R., on MONDAY NEXT, Oct, 21, m the least reserve, several acres of unusually well when NURSERY STOCK, the whole in the beast posity mell pom for removal, comprising thoueands of Rhododendrons them a large number of unique Specimens and standamen surpassed in the trade, and forming one of fingatanthe ever submitted to public competition. Several thom Gthent and other Hardy Azaleas, 10,00 oval-learan thousands of Berberis aquifolia, enormous aven Conifers in various sizes, including Cupressus, Thujopsis, suitable for hedges, screens, and genend pint a grand lot of perfect specimen Variegatea Holie, mity less specimen quantity of Standard and Bush A pples, Gooseberries, Cumm standard, whrained (post free) of the Auctioneers
It is impossible to adequately call attention to this iuphom Sale within the limits of an ordinary advartinement stock, which will well repay a visit to these Nu thpur May be viewed Catalogues had on the premivere
May be viewed. Catalogues had on the premises, add ith
Hollamby's Nurseries, Groombridge, near Tuarilh WELLS.
GREAT UNRESERVED SALE Of NURSERY STOGK, IT

IESSRS. PROTHEROE AND MORRIS mill Yuilway Station, on THU RSDAY add RIPAT NEXT. Oct. 248285 , at \(120^{\prime}\) Clock punctually each day, 4 . iN CONIEERS, named and other Rhodojeudrons, Andes, Laurels, Larch. Scotch Firs, Asa, Spanish Chestuuts, stwant, transplanted Quick, Hardy Climbers, Dwaffs, Climbin, wid other Roees, the wiole in splendid condition for remonal; in Seakale, ext ra strong for forcing, and other Stoek.
May be viewed any day prior to the Sale. Catalogas my bo had at the Nurseries; sido the Auctioneers 67 and 88 , Cheapside, London, E.C

Maidenhead.
SaLL of well-grown ORNAMENTAL SPECTMEX SREM and TREES, Standard Pyramid and Dwarf-trained IBUM TREES, RUSES, HERBACEOUS PLANTS, te.

IESSRS. PROTHEROE and MORRIS mill SRLL the above by AUOTION on the preminan Floral Nurperies, Castle Gill, Maideobead, one mile Half-past Eleven o'Clock, by order of Mr. B. Owou.
May be viewed. Catalogues had on the pramime, and dill Auctioneort, 87 and 88 , Cheapside, London, E.C.

\section*{Woling, surrey.}

THRER DAYs' SALE of valuabie and thriving XUR mint carefully prepared for remon MESSRS. PROTHEROE AND MORRIS mill sell by atiction, on the Promises, The Cart Houd Lare Nurberillowivg DAYs, at 12 o'Clock each das:2000 English Yews, \(\&\) to 5 feet, several hundreds of Capreses Thujas, and ochers, for hedges, screens. \&c, Specumen Gold and Silver Hollieg, with 2 to growth of from 15 to 25 years ; 3000 Common with buds; thousands of Standard Ornamental Trees Avenue and street Planting, immense quantitice an Fill Shrubs, for potting and growing on; 1000 standard ander ub Standard Roses, 6000 Standard and Pyramid Applem Plums, most of them Fruit-bearing Trees; Flowerias apph in great Stocks, \&ce.
Luncheon will be provided to intending purchasers. In Stock may be viewed any day prior to the sale.


\section*{DUTCH BULBS.}

\section*{GREAT UNRESERVED SALES}

MESSRS, PROTHEROE AND MORRIS mill sELL by AUCTION at their Central sal \(120^{\circ} \mathrm{Clame}\) ad Cheapoide, London, EAC. EVERI DAY, tHS, TUITH CROCUS, NaRCISSUS, and other BULBS from Hols to suit the Trade and Private Buyers. DROPG, \&

On view monning of Sale, avid Catalognes hal.
Greenflch -Early sale.
The ERECTION of Five GBEENHouses and potrige SHED, Two BOILERS, about 500 feet of CrLus Mous PIPE the remaining sTUCK of in potso fill

MESSRS. PERKINS AND CHSAR mil SELL the above by AUCTION. on the Premien, Kither or Park Row, Greenwich, on WE
at 12 o'Llock precisely, in Lote.
On view morning of Sala. Cataleg

\section*{A DEPARTURE IN THE NURSERY TRADE.}

CHARLES NOBLE has decided to OFFER, by AUCTION, the very cream of a life's selection of Specimen RHODODENDRONS, GHENT and other AZALEAS, GOLDEN RETINOSPORAS, GOLDEN HOLLIES, and Select HARDY TREES, from 2 feet to 10 feet high. SIX DAYS' SALE. Much of the Stock is Unique, and all in fine oondition. SALE, OCTOBER 21, 22, 23, 24, 25, and 26. There are about 80,000 Plants on Offer. Catalogues may be hud of the Auctioneers, Messrs. PROTHEROE and MORRIS, 67 \& 68, Cheapside, London, E.C.;

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CHARLES NOBLE, THE NURSERIES, BAGSHOT,
}

\section*{SALES BY}

MESSRS. THOMAS B. JAMES \& CO.
HORTICULTURAL AUCTIONEERS.
Birmingham.
DUTCH BULB., EVERY THURSDAY.

MESSRS. THOMAS B. JAMES AND CO. SELL by AUCTIUN at their spacious Sale Rooms, 35. Temple Street. Birmingham. EVRRY THURSDAX, at hafl past \(110^{\circ} \mathrm{Clock}\), about Tw Th Uatalogues free: Commissions carofully executed. Birmingham.
3800 FRUIT TREES.-Standard, Pyramid, Cordon, Dwarftrained Applea, Pears, Plumg, Apricota, Peachen, Nocta-
 Talms and other Plants.

\(\mathrm{M}^{1}\)EESRS. THOMAS B. JAMES AND CO. are instructea by a Nurseryman in the West of England, to SELL by AUCTION, at their
Birmingham, on THURSDAY,
Ootober Birmingham,
Catalcgues iree

\(\mathrm{M}^{\mathrm{P}}\)Coventry.
ESSRS. THOMAS 13 . JAMES AND CO. are instructed by C. J. stringer. Fsq. (who is leaving the residenct, to SELL LY AUCTION, on the Premise, The Flms,
Coventry, on FRIDAY. October is, 1890 , at 11 o, Ulock Aanp (there being a large number of lots), the whole of the fine Collection of ORCHIDd, which are well-grown, healthy plants, between 600 and 700 , amongst which are very fine will be included in the Sale the whole of the STOVE and GREENHOUSE PLANTS, comprising fine specimen Palms, Crotons, Dracreas. Anthuriumes, Davallias, Aspidistras, Tree Ferns, Clerodendzons, avd endlesw other fine things.
Can bo vieved three days proceding Salo. Cataloguea may be had of Mr. HOLLAND, the Head Gardener, on the Street, Birmingham

IESSRS. THOMAS B. JAMES AND CO. are instructed by Mexprs Filson and Youle (whose Leave iserpiring) to SELL by AUCTION, without reserve, on the premisea,
Brakedom Nurseriea, near Kinderminster, on W EDNESDAY Blakedonn nurseries, near Kinderminthr, on the young and well-grown Nursery sTOCK, all being in splendid condition for semoval, comprisidg many thousanus of CONIFERS, fine PICEAS, FRUGTY TREES in variety, IVIES, BERBERIS, LIMRA, LABURNUMS, ROSEA, PRIVET, LAURELS MANETTI STOCKS, Messrs, \(\mathbf{W}\). and \(\Psi\). will carefully lift and put on rail at mere cost of labour.
May be viewed any time. (Station, Charchill, G.W.By.) Catalogues may be obtained from the Nureery, and from the Auctioneers, at ti cir office, 35 , Temple Street, Birmingham. saunders Lane Nursery, woking, sursey.
about 1 mile from Worplesdon and 3 miles from Woking UNRESERVED CLEARANCE \&ALE.

MURRESERVED CLEARANCE SALE. ESSRS. W ATERER AND SONS are instructed by Mesgrs. T. Holdforth \& 8 on, who are declining busicess, to 8ELL by AUCTION, upon the Premises, an 11 for \(120^{\prime}\) cloclor, the whole of the Young and Wrll-grown NURSERY STOCK, comprising 2n,
 Detual Rozes; 20,000 stundard and Dwarf Roses in maiden buds; 10,000 Manetti 8tocks; 8000 Standard. Pyramid, and Dwarttrained and other Fruic Trees; 15.000 Gooseb: rry and Currant Bushes; 10,000 rtrong Raspberry Canes; 6000 Lime, Moun tain Ash, and Labarnum, from 6 ft, to 15 fr .; 3000 Paropas Grass, 10,000 Virginia Creepert, 10,000 Ivies of sorts, 10,000 Hypericum Canifers, Urnamental, Evergreen, and Deciduons Flowering ghrubs. The whole of the Stock is in fine condition for removal, and well worthy the attention of Nurserymen and others. May be viewed six days prior to the Sale, and Catalcgues had upon the Premies, and of the Auctioneers, at either of their Offices, at Cherteey, Wey bridge Stution, and Walton-onThames.
THE FRERHOLD NURSERY, comprising about 6 acree, With Two Cottages, forming most Magnificent Site for the
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Close to Stations ou L. B. \& B. C. and S. E. Railways, PRELIMTMARY NOTTOE. BY ORDER OF TBUSTEE. IIESSRS. WHITE \(\triangle N D\) SONS are instructed MONDAY, November 4. 1895, and FOLDRWies, as above, on
 Whole of the NURRERRY STOCK and PLANTS, GREEN-

ELEVENTH ANNUAL SALE Of NURSKRY FRUIT BTOCR MESSRS. NORMAN AND SON are instructed II by Messrs. Smith \& 8on, to hold the ELLEVENTH ANNUAL SALE OU NUREEREY FRYIT OCtober 29 god \(30,1895^{\circ}\). each day at \(11 o^{\circ}\) clock punctuat
\({ }_{30} .000 \%\), and 4 -year-old standard and Half-atandand
APHLE TREEJ, including several new kinds, which have
not been brou
Sales ; about
30,000 Stendard and Hulf-standord PLUM TREES,
30 Cluster Da M SUNS,
5000 Standard CHERRY TREES, 3000 PEARS,
100,000 CURRANTS and GOOSYBERRIES,
Full grown, and suitable for Forcing and other purposes, particulars will be given in the Catalogues.
particula the day prior to the 8ale, and catalogues had of Messre. J. SMITH 4 Nn SON, Growers, Sipson, and 445 and 449. Covent Garden Marker, London, W.C. ; and of the Auctioneers, Uxbridge, Middlesez, and Besconsfield, Bucks.

W ANTED, to RENT, from March next, 300 for Tomatos and Cucumbers. No stock.
and Cucumbers. No stock.
G. GINN, Downe, Farnboro', Kent.
W ANTED, to RENT, NUKSERY saitable for Growing Cucumbere and Tomatos. Glass, not much Lgency, 132, Fleet Street, London, E.C.
W ANTED to RENT, a SMALL NURSERY, Cucumbers and Tomatoe
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THE LEASE (nineteen years nnexpired) of a SMALL NURSERY, 280 fept well built heated glass, FOR DISPO3AL. Rigat roomed double-fronted Cottage, five acres Meadow and Garden, ove acre wired, and large rowl-house;
Coach house, two stalls; common right, for reat, Loam, Sand, Coach house, two stalis; common rights for reat, Lomm, Sand
and Gravel. Rent 231 . rates and taxee, \&3 bs. ©d. Two miles and Gravel. Rent 231. rates and taxee, e3 88. ©d. Two miles
from station, S.E.R. Landlord compensates on expration of from station, S.E.R. Landiord compensates on expiration
lease. Price low to an immediate purchaser.-A. Z., 41 , Wel lington Street, Strand. W.C.
K ENT.-Ten miles from Londov, in an imwould be SOLD. Splendid opening for tnerget ic person. ?acre of Land. Moderate rert. No stock need be taken.
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\(T \mathrm{O}\) BE LET.-A good GARDEN, in good condition, 2 Acras in extent. Vineries, 99 foet lonk: 2 Cucumber-houses, Tomato and Peach-hvis, North Wales.
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To Nurserymen.
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MILES, 2A, Lingley Court, Covent Garden, FLOWERS for SALE on COMMISION. Best Marler Prices FLowned. Boxes and Labels supplied. References given.
obtained
Coraindence invited. Terms: Cheques weelly; London \& County Bank.

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Behedule of Pryzes, and all particulars, may be obtained on
pplication to Mr. FRED. J. GARWOUD, Bon. Sec., 37, Turner Road, Lee, B.E.
BRIGHTON CHRYSANTHEMUM SHOW
\(\& 150 \mathrm{in}\) Prizes. All Olasees open. Entries clow October 31.
Schedules, \&c., of the SECRETARY, 53. Queen's Rd.. Briphtion.
THE EASTBOURNE HORTICULTURAL CHRYSANTHEMUM SHOW, November 12 and 12, 1895.
\[
38 \text { Incurved, diutinct, prizes … } 23 \text { 2\% } 21 \text {. }
\]

36 Japanese, diatinct, prizes ... 23 21 21.
Entrance fee to one or both classes, 5s. Close, November 6. E. A. NEWMAN. Secretary,

21, Brooklyn Terrace, Rastbourne.
BOURNEMOUTH AND DISTRICT CHRYS-
ANTHEMUM AND HORTICULTURAL SOCIETY. November 13 and 14 (good open clasaes). Class 1, THIRTY. SPONG, Secretary, The Garaens. Lindisfarne, Bournemouth.
BATLEY CHRYSANTHEMUM SHOW. OPEN CLAS8 - Cup, value 20 guineas, for \(33^{\circ}\) cr't blooms: and Cup, value 6 guineas, for 24 cut booms, in gadicion Money Prizes. Full particulars on application to the secrotary.

NATIONAL CHRYSANTHEMUM SOCIETY. Royal Aquarium, Westminster.
GREAT FLORAL FETE, Y. WEDNEYDAY, and TH3

The largest Exhibition of Ohrysanthemums held in the country. Prizen fo: Fruit and Vegetables. Schedules of Prizes from-
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Under the Patronage of Her Majasty the QUEEN, and the Presiden y of the Right Hocourable Lord WINDSOR, LordLieutenant of the County of Olamorgan.
THE CA R DINDESTRAL, FINEART, MARITIME EXHIBITION, \(1896^{\circ}\) WILL BE
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\text { OPENED IN MAY, } 1896
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And Continue open a period of Six monthe.
The Exhibition will comprise the following (amongt othor)
AGRICULTURE ANO HORTICULTURE,
bealth and eygiene
SPORIS AND PASTIMES AND AMATEUR EXGIBITS. MACHINRRY, ELECTBICTTY, AND LOCAL AND GENERAL
martime.
Phutography.
 tions.

Copies of Proopectus and Rezulations for Ethibltom, and Forme of Application for space, may be ob siberl of the hom. seoretary.

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FORORCHIDS and GARDENERB to Grow them, apply to SANDER's, St. Albans. The fizent

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Three pairs of Forceps, Brash and Case complete, 10s. 6 d . Lavge Forcepe. for pulling centres, 3s. 9d.; Smaller ditto, for Dreming, 2s. 9d. Free for cash.

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AND SON, 12, King Street, Covent Garden, London. GRANDE MONARQUE NARCISSUS, 30s. UT per 1000, 3s. 6d. per 100; CAMPERNELLE MAJOR, 8 . per 1000,18 . per 100 . All good flowering bulbs.
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Good, olean, and bushy stuff, in \(48^{\circ} \mathrm{s}\), at 4h of per dozen.

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\author{
SATURDAY, OCTOBER 19, 1895.
}

CLIMATE, AND THE ORIGIN OF ROOT-CROPS.

\(\mathrm{I}^{\mathrm{N}}\)N spite of the labours of the numerous botanists and agricultarists of the present day, it is not by any means clear that we know much more about the effeots of olimate than does an ordinary working farmer.
In estimating the special effeot of olimate on one partioular root-organ, there are two methods open to us ; we may adopt statistics, or we mas try the effect of direct experiment.

Taking statistios first, it is best to compare the average yield per acre of our oommon root-crops-Turnips, Mangels, and also Potatos-for the years 1885-189t, as given in the Agricultural Returns for Great Britain, with the climate in those years.

I therefore obtained (through the kindness of Mr. E. Clarke) from the agrioultural returns of the Board of Trade, the following table of the average yield per aore of Tarnips, Mangels, and Potatos, throaghout Great Britain in the years 1885-1804. I have to thank Mr. Marriott of the Meteorological Society for assisting me to find the returns given in the right-half of the table, which represent the total rainy days, inches of rainfall and hours of sunshine in the months of May, June, July, and August during the same years:-
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Tear. &  &  &  &  &  &  \\
\hline 1885 ... & 10.41 & 16.24 & 474 & 51 & 760 & 721 \\
\hline 1886 ... & 1475 & \(20 \cdot 13\) & 431 & 60 & 1046 & 657 \\
\hline 1887 ... & 988 & 14.61 & \(5 \cdot 36\) & 43 & 585 & 809 \\
\hline 1888 & 12-51 & 1678 & 400 & \({ }^{2} 5\) & 12.30 & 624 \\
\hline 1889 ... & 14.48 & 18.21 & 4.71 & 60 & 1115 & 870 \\
\hline 1890 ... & 14.27 & 17.76 & \(3 \cdot 53\) & ¢9 & 11.28 & 637 \\
\hline 1891 ..0 & 1340 & 1860 & 4.74 & 65 & 11\%09 & 638 \\
\hline 1892 ... & 1404 & 17.99 & 445 & 60 & 11.27 & 684 \\
\hline 1893 ... & 1368 & 13.26 & 523 & 54 & 9015 & 764 \\
\hline 1894... & 13.83 & 1802 & 388 & 74 & 12-95 & 018 \\
\hline
\end{tabular}

Now this table in at first sight only remarkable for one thing, and that is that it is apparently atterly impossible for haman ingenaity to oxtract anything of the slightest sorvice to mankind from its perusal. In a case of this lriad it is always advinable to draw curves representing figures, as then the most striking feature are perceptible at a glanoe, but it is necessary to be very oareful how these ourves are drawn, for it is a popular fallacy that anything can be proved by statistios.

The manner I have adopted is to take only the deriations from a normal or average. Thus the
dotted ourve in fig. 78 - . . represents the varistion from a normal number of rainy days. The average namber of rainy days in the four months May to August is 603 . The actual amount recorded in any year is then oompared with this average number, and the difference forms the distanoe above or below the line \(a-b\). The plain line represents the crop returns, or rather the average yield per aore of Turnips and Mangels combined throughont Great Britain in a similar manner. 'The normal orops of each root, taken from the average of the ten years, that is for Turnips 13.09 tons per acre and for Mangels 17.06 , were oompared with the amount in each year, and the result is given as the vertical distances. The thin line represents the Potsto returns, taken in the same way for the ten years.
All three curves are made to startfrom the same point by ohooring a proper measurement-unit.
This gives a mot unexpected realt; the Tarnip and Mangel crops are seen to follow with extraordinary accuracy the amount of rainy daje in those four monthe, but there is one exception. In'the year 1889 there is a lese than normal amount of rainy days but a very good crop. Probably thin is due to some particular manner in which the days were dietributed so as to give a maximum of moistare with an few rainy days as posible.
This proves what Sir John Lawes pointed out in 1855, Journal of the Agricultural Society, vol, iiii, "the most favourable conditions of growth for our cultivated bulb-forming Turnips are a low degree of temperature, a large number of rainy days, and a large actual amount of rain."
Bat when we turn to the Potato crop, there is exactly the opposite reanlt. Wherever there is a great rive or fall in the number of rainy dayn it in followed by the reverse in the Potato curve; this last resalt is probably due to the action of moistare in favouring Potato disease, for in the South of Earope, and dry conatries generally, it is not found that Potatos do particularly well, but as a rule tarn out rather a failure. Oa the whole, the conclusion seems pretty safe that it is the number of raing days which exercise the greatest influence on the root-crop. The following table shown their diatribution:-
\begin{tabular}{lc|c|c|c|c|c|c|c|c|c|c}
\hline & & 1885 & 1888 & 1887 & 1888 & 1889 & 1890 & 1891 & 1802 & 1893 & 1894 \\
\hline May & \(\ldots\) & 21 & 18 & 13 & 10 & 14 & 15 & 15 & 14 & 10 & 16 \\
June & \(\ldots\) & 14 & 15 & 6 & 19 & 10 & 19 & 14 & 19 & 12 & 20 \\
July & \(\ldots\) & 9 & 14 & 13 & 20 & 16 & 18 & 15 & 11 & 16 & 18 \\
August & \(\ldots\) & 10 & 15 & 11 & 16 & 20 & 17 & 21 & 16 & 16 & 20 \\
\hline
\end{tabular}

Leaving the tatistical method, it is beat to examine the result of actaal experiment to see whether this reanlt in actually borne out by independent observers, who examined the behaviour of plants artificially grown under various circumetances

A gocd many are recorded in Profeasor Henalow's Origins of Plant Structures. Even in the time of Piny the Greeks neem to have discovered that by growing Radiahe: in a cloggy oil, a more fleahy Tumip-like root might bo obtained. This experi ment has been repeated with the name reanlt by many others: ©.g., Carrier at Parin in 1869 fonnd that from the wild Radish (Raphanui raphanistram) a Turnip-like fleshy root could be obtained by growing it in clay, while only a long and narrow root arpeared in a mandy noil. This method was also adopted by Backman at Cirenceater, and by Bretfeld in Vienna, with quite similar results. It has alao been proved that if a fleahy, Tumip-shaped Radish is grown in light eandy soil, then it will in course of cultivation become again long and narrow. It is obvious that all theme experiments can be at once brought into line with the atatietical experience (clogey ing out the aimple fact that a clay ooil (clogey is su even better terme) will naturally hold mame way an a by keeping itaelf moist, act in the all the people who worked of rainy days. Hence agree in pheople who worked quite independently

But a direct proof bas been foamd
quite anpractical experiment which wat conducted by Birner, who cultivated a number of Potatos in pots, which contained different amounts of water. He foand that the namber of taberm and the weight of each in any pot depended exactly on the amoant of water in the particular case. The more water, the more and heavier were the tuberf.

In a case of this kind it is slways interesting to see how and why this underground atore of farinaceous food hat been formed. Now, every out-of-door botanist expect! to find bulbs, tubers, and so on, in a dry or dewert climate, not in a wet one. Thas, in Africa they are far the most abundant (that is to asy, in proportion to the reat of the flora) in the Sahara, the Kalahari Desert, and Namaqualend. In such place one finde all sort and kinds of planta taking to this habit-Pelargoniums, for inatance, which asually never attempt anything of the kind, produce large bulbe.

The reason why this arrangement has been adopted is obvious to anyone who has passed through the Karroo in South Africa before and after a shower of rain. Before, everything except a few fleshy-leaved water-atoring plants is dry and apparently dead; after it, the ground is covered by the rosettes of Liliey, Amaryllis, and handred of other balbous plants, which only require moisture to develop with magical rapidity. At the water gete dried up, the e leaves, baving manafactured a certain amount of starch or angar, die away, and perhaps in

\[
{ }_{\text {anad ad }}^{1886} 1887^{1888} 1889^{1890} 1891^{1892} \quad 1893^{189}
\]

Fig. 78:-RAIN 4 nd root-crop dilgram.
even or eight years the: will be enough food material accumulated to enable the plant to aend out a stalk covered with magnificent fowers.

It neems to be the case that whenever in Africa, Asia, or America one find theme dry conditions, then there is arre to be a large number of bulbous or taberous plant.. In our own country, these form are mont common amongat the plante of early apring. Their atore enables them to flower and produce leaves immediately, so thut they have the soil all to themelves, and are not exposed to the congented etate of things which prevails in summer-that is, they live in moist and fairly cold conditions. To point out in what manner (or how) theme structares have been developed, is very much more hazardout.
Still, we may note first, that as a matter of fact, most of our common root or tuber plante have been formed in dry or hot countries. Do Candolle gives the birth-place of a certain number. Thus the deserts of the Cancasus and Palestine probably prodaced the primordial Radish and Onion. Eatern Earope in remponaible for the Horseradiah, and possibly alwo the Turnip. The Salwafy neems a native of Greece and Algeria, and Scorzonera neeme to be Spanish, while the Potato, so far an one can judge, is a Chilian epecien. One effect of a dry or desert climate has been proved beyond any room for controversy, and that is the tendency for the branchen to become short, or in other words, for the internodes to be shortened or mappresed. This is probably because all the tisurea in a desert-plant are exceedingly hard and rigid (i.e., plenty of welerenchyma and cuticularination), and hence it in without any wildneas of speculation that one can may that the drought, by preventing the rising of the atem, tend to increave the diameter of the inderground portion. Being nuable to increase in length, the utep expande in thicknest This
explanation is more or leme clearly given in Professor Henslow's book, and it onable us to anderatand the origin of bulbs in a sort of manver.
In our own country we find comparatively for bulbou plants because the climate is too moidt for them to be formed naturally; and hence, if we wat thern, we have to get them from elsewhere. At ay rate, the ancient Egyptian who began growing rooth in hif mud-patch at home, in order to are himulf the trouble of going to the devert in time of faming to dig them up, must have been pleased when in found that they were capable of drinking a very gruc deal more than they ever had the chance of doing their home in the ande, and now this habit ham improved and rendered to a certain extent herditur, Still, even now, theme plant would in Eogure once take to forming stems if they had the who tunity. G. F. Soott Elliot.

\section*{KEW NOTES.}

Habenaria Susannks. - When grown in u intermediate temperatare the flowers of this bemtiful Orchid are quite as fine as thone proded in a hot-house, but the atem is only about hall as long. The leaves are leas likely to fill : prey to spot in the cooler house than when kep hot and moist. There has been a good diaply this year of flowern upon plants of this Habenaria grown thus at Kow, some of the planta having had six flowers open at once, each 2 inchen acron, pure white, with a large comb-like lip, and we look upon it as a useful addition to anmmer-fowering terrestrial Orchide. According to Major-General Berkeley, in the Orchid Review, it has long been a favouris garden plant in the East, but always in hot moint aituations. At Kew it is planted in light lonmy soil, in pots, and grown in an intermediate temperso ture, the tubers being repotted in February at the tame time as H. carnona and H. puailla (militaris) are atarted.

\section*{Baurinia Galpini.}

This plant was described by Mr. Brown in the Gardeners' Chrovicle, 1891, xio, p. 728, and a figare of it was published in Hooker' Icones Plantarmm. Seede of it were sent to Kew from the Traasual by Mr. Galpin, after whom it was named, and who deacribed it as an elegant shrub, with small leaver, and racemes of large bright crimson flowern A plant of it is now flowering for the first time in the Sacculent-house at Kew, where it is planted in the border amongat the Agaves. Here it receiver plenty of air and annshine in summer, and in winter it getm aufficiently dry at the root to came all the leaves to fall. The flowers aro proo daced on the ends of the branchleta, new the top of the principal branches; they are in hort racemes, each consisting of five flowers, the atalke of which are 1 inch long; the calyx-loben are narrow, reflezed, and the equal petale I inch long, apoon-thaped, forming a cup, which in aize and colour muggents the flower of a common Natartiam, The leaves are bilobed, and 2 inchen acrons. Clon to the Baubinis, which is about 6 feet high, there are fine examples of Leucadendron argentenm, Poine ciana regia, and Diospyro kaki, the latter baaring frait, and they all receive the asme treatment as the Banhinia.

\section*{Amigtolocint magars.}

In his note on this plant (see p. 369), Mr. Hemiley appeara to have overlooked a note which was publithed in the Gardeners' Chronicle the week ittes the description of the epecies by Dr. Matert appeared (eee Gardewers' Chronicle, Soptember, 1885, pp. 301, 338). This note contains an extract from a letter written to the Director of Kew by Baroi Capanema, of Rio, who sent plante of A. eleganes to Kow in July, 1885. One of thewe plants was figarod in the Botanical Magazine, no that the Baron and Kow may claim as mach credit for the introdaction of the plant into Earopean gardens as M. Glasiow and Mr. Ball. The Baron diatinctly atates that bo raised the plant from seeds which he received and years previoualy from Paraguay, and that if
became a common gardon plant in Rio. Io produce
seeds freely under cultivation here, and is juat the kind of plant that would aoon apread wherever it got a foothold. Of courne, it may have been introduced into Paraguay, but so far an in known, all the plants in cultivation of A. elegans are, according to Baron Capanems, from that soarce. W. W., Kew.

\section*{Lespedeza Sirboldi, Mieublo}

Thin in decidedly one of the mont ornamental of antumb-flowering Leguminiferout plants, and this gear it is eapecially fine, the anny weather during the latter half of September having aided the development of an exceptional abundance of flower. A fine antumn is, indeed, needed to show this abrub to beat advantage. A large group of it in the collection of abrabby Legaminome at Kew hat been fully in flower for the last four weeks. It is a plant of graceful babit, sending ap each year from the stool strong, arching shoots 5 to 6 feet long, which on the upper part give off at each leaf-axil a alender panicle of roy-purple flowert. The plant dies to the ground
we have, and if it never fraited at all would be well worth growing. The flowers are sbout 1 inch acros, white, and produced in large flat corymbs, about the end of May. The leaver are amongat the largeat in all the Cratsgus, meaturing 4 or 5 inche in diameter. They are brondly ovate, lobed and toothed at the margin, and covered more or les with a moft pabencence. The apecien is nearly related to C. coccinea, but the latter is readily diatingaished by its glabrous leaves. The flowers of C. mollis are larger, and it ir, as an ornamental tree, superior to C. coccinea. It is widely apread in the United States, and it distribation extends as far north and mouth as Canada and Mexico respectively. W. J. B.

\section*{GODDEN GREEN.}

Thosm who are familiar with the glories of Kent, the pictareaque character of the greater part of the county, its frait orchards, and its Hop-fields, are not likely to be unacquainted with the old town of


Fig. 79 --mb. frang hudson's beidence at godden green
in the winter, and a it is said to do this even in milder latitudes than ours, it would perhaps be more correctly dencribed as herbaceous. It is hardy at Kew. It is increaved by dividing the old atools-an operation which thould be performed at intervale of a fow yearn, in any case. The pecies is found in China and Japan, and it was from the latter that it was introduced by Siebold. The plant was figured in the Gardeners' Chronicle for 1883 (vol. xx, p. 749), under the name Desmodiam pendalifloram. It is also grown sometimes an Lespedeza bicolor, a name that properly belonga to a nearly allied, but quite diatinct species, which is more truly nhrubby, and flowert aeveral weeks earlier.

\section*{Crategus mollis (Scarlet Hawthorn).}

This is One of the largeat and handmoment of the American Thorns, forming a amall apreading tree from 20 to 30 feet high. It is abandantly represented in the ground at Kew, and neveral treen were heavily fruited. The haws are about five times au large as tho of our English Hawthorn, and almost globular. It is unfortanate that the fraite do not remain a longer time on the tree, as they are montly fallen by the beginning of this month. Thin species in, however, one of the moat beatiful flowering Thoms

Sevenoake. In the immediate neighbourhood is Wildernense Park, one of the seate of Lord Hillingdon, and two milen from the town is Knole Park, the aeat and reaidence of Lord Sackville. This grand old manaion, ite immense park, and fine timber, it large and well-kept garden, and the ancient and historic character of the place itself, are all intereating. But tarning to the particular aubject of this note, we mutt drive from Sevenoski, a diatance of about \(2 \frac{3}{3}\) miles, pasing through the curious little village of Seale, thence through a park adjoining Wildernese, and on to a place called Godden Green, leaving Knole about a couple of mile to the right.
Godden Green House is nitaste on one of the eminence common in this part of Kent, and is the residence of Frank Hadson, Enq., one of the janticen for the county, and a partner in the remarkable firm of Hudson Brotherr, the provision merchantu. The house at Godden Green was bought by Mr. Hadeon about ten yeart ago, and the grounde attached thereto are something like 60 acrea. From photographe taken of the badly-cared-for place at that time, the amount of work that has been done under the direction of the present proprietor becomes apparent.

The wouth front of the reaidence is showa in the
accompanying illatration (6g.79), and though nct large, the house is very pretty. From the roof half-way to the base the walls are tiled, and below the walls are of grey atone. A grand billiardroom, and a few minor additions have been made by \(\mathrm{Mr}_{\mathrm{r}}\). Hadson, and if he had been responaible for he bailding of the whole structure, it would mons: likely have been more imponing; as mach is indicated, at least, by the new and excellent atables and other buildings which he has erected to the right of the photograph, which in ome meanure tend to belittle the house. In the garden there appear to be no favourites-no hobby-riding, but everything is done to secure general pleasure and uaefulness. Almont the whole of the groande extend from the house in west and north directions, hence there are the anual disadvantage attending a short drive from the lodge. This drive has been planted on either mide with Cedrus Deodara, now thriving well, and one aide of which may be seen in the figure. In the tarf in front of the tree there are flower beds of time-honoured character; they are raised very high, and have banked edgen of Ivy, Echeverias, and other aimilar plants. Pelargoniuma, taberous Begonias, Lobelias, and other bedding plants are uned in the bed with tate, and in aeveral combinations. Especially worthy of remark were the two bed of Heliotrope, which had thriven eo exceptionally well that we have never aeen better or neater masen of thin eweet and always popular flower. Whether such bedding is the beat to use in this position in largely a matter of tante, but the success with which it had been followed, deserved the highest praiee possible. The pleasare-ground are decidedly pretty and attractive, partly owing to the fact that they are kept well, and neatness is observed everywhere, but also to the aite itself, which has no slight influence in the same direction. From the tennil-groand and from the house windowe, are obtained views of the most pleasing description, and happily, these are not obscured by trees which thwart the purpose for which they were planted, an in the case of many lovely ground. The trees and shrub around the house are not yet large, nesily the whole of them having been planted by Mr. Hadson, who may be credited with having done a large amount of auch work; but on the other hand, there are many instances where further planting will be beneficial. Some large beds of Rhododendrons on the north side of the house have given unqualified aatisfaction aince they were overhazled by Mr . Woodward, the gardener, and plenty of cood peat given them. A bank of Ponticum and Gient hybrid Azaleas, alao on a bank at the rear of the hnuse, sloping to the wouth, create a magnificent diaplay each apring. The poaition in just a suitable one.

Very near here is the old part of the kitchen garden, now used principally for fruit, though the Asparagus-bede are also here. The vegetable garden has been made in a corner at the sonth-went extremity of the grounde, and close to a small model farm. The garden ie very mall-we ahould think too mall, but the crops howed that conniderable use is made of it. Peas, Beans, Celery, Onions, and eapecially Bruasels Sprouts looked well, but the Peas were nearly apent. Oar attention was drawn to a good lot of Aaparagus-Kale, with the remark that it wan the mout prized of the winter vegetablen. The walks are of asphalt, edged with tarred bricks. About 170 atandard fruit trees have been planted in various ponitions. Fighty of these form a belt a few feet from the extremity of the grounde, in a nice meadow, and these will probably thrive and bear well. Unfortunately the aoil is generally vert poor, and immense quantities of manure have to be applied in order to get good crops of anything.

One of the chief feature of the place in about 10 ncrer of woodland, containing plenty of moderatesized trees, and also a number of copse-ntools. The whole of this has been opened up with skirting and interesting paths, well made, and consequently clean during any weather. A very great deal of planting, too, has been carried out, in order to give the paths a more farnished appearance, and by the addition of

Hhododendrons, Laurels, Thajopais dolabrata, Abie grandis, and other Conifers in mall groups and a specimens in open apots, the wood bas been made a charming retreat daring hot weather in summer. Still mach more of the eame kind of work need to be done, and an excellent effect would follow the further planting of Rhododendrons, Aucubas, Laarels, Kalmian Irish Heaths, and other such dwarf and raeful plants.
The glasa-housea again show Mr. Hudson's regard for the naefalness of thinge. The most important of these is an excellent apan-roofed Peach-house 72 feet long, 22 feet wide, and 18 feet high. The site necessitated the aspect running nearly north to wouth. Evident, here, is the good culture the treen receive, for though the crop was gathered, we could observe the healthy appearance of the wood and leavea, and they were ripening splendidly after bearing so heavily. In order to prolong the seaton an much as possible, the following varieties are cultivated: Waterloowhich is ssid to alwaya bear a good crop of fruit here, Dymond, Halea' Early, Amaden's Jane, Bellegarde, Cundor, Early Louisp, Cricuson Galande, Sairling Castle, Princeas of Walea, Warburton Admirable, Nectarine Peach, Sea Eagle, and Barrington. Among Nectarinet are Humboldt, Rivers' Orange, Lord Napier, and Elruge. The tree were planted rather thictly, in order to furnish crop of fruit at once, and will now need thinning out a little. Other houses included a mall lean-to rosary, and another small span-roofed house, with two divisions. In one of these are permanent Vines, and in the other potVines, or Melons, according to the time of season. The pot-Vines intended for the house have been raised on the place, and they were excellent canes for the parpose. There is a lean-to vinery, and another upan-roof house, used for late Vines, in addition to the above, as well as a moderately-nized greenhoune.
We were not surprined to find that a portion of the land had been retained by Mr. Hadson for meadow-pasture. Two or three, however, infficethey are amall, but in oplendid condition. snd a few excellent Alderney cown were grazing. Mr. Hadson has atudied the dairy industry thoroughly, and has done mach in many ways with a view to popalarising dairy calture in this country, for the free-trade priaciple of our hospitable host are not inconsistent with a hope that the dairy prodacts now imported into this country in such vast measure, will give place to articles of equal quality which, it is believed, this coantry is capable of prodacing in large quantitiet. Bat the dairy queation, like that of fraitgrowing, has long been a mach-discussed surject. In conclunion, we are convinced that the satiafactory condition of the place is the realt of enthasiam on the part of proprietor and gardener alike, each of whom aecond the other's efforts.

\section*{Orohid Notes and Gleanings.}

\section*{PLEIONE LAGENARIA.}

Tyese charming little plants are making a grand nhow here at the present time. Tnere are about three dozen 5 -inch pots containing from even to nine paeado-bulbs each, and which average about twenty-eight flowern in a potiul; one pot with nine good bulb has thirty-three expanded flowers, some of the bulbe measaring 5 inches in circamference. They have been grown all throagh the seasom at the crol end of the Mexicen-houne, close to the door, where much air enters from the outaide. After they had fairly atarted into growth, they were watered two or three times a week with soot-water and liquidmanure made from horne-dung. To any one having to make battonholea or sprays they are very unefal flowers. The plant being deciduous like Calanthen, the plant should be intermized with Ferns, which Hhow them off to adrantage. W. Hurlitone, Parkfield,
Hallows. Hallow.

\section*{Catabetua tabulahe var. beachiolossun.}

In the isue of the Gardeners' Chromicle for Jaly 13, 1895, p. 43 , an illastration of Contasetum taly 13 ,
var. rhinophorum wan given, and in the accompanying note allusion was made to other known rarieties of this species. One of the most singular C. t. brachyglossum has jast flowered with Joseph Broome, Eaq., Sannybill, L!andadno (gr., Mr. Shill), who bas kindly sent the inflorescence. The very aingular and large flowers have the sepals and petals, the underside, and the ningular apturned margin of the lip and the pouch at the base, of a creamy-white colour, with a dense freckling of rose. The large Ivory-white tongue-shaped callus is \(3^{3}\) of an inch broad, 1 inch long, and nearly \(\frac{3}{3}\) of an inch thick. it was the remarkably broad, shurt, and thick callas which indaced the late Prof, Reichenbach to distinguish it by name, and evidently the pecaliarity is constant_in onessection of the speciev.

\section*{Houlletia Brocklegurstiana.}

Like many other Ochid of early introduction, this beautiful species attracts considersble attention when well calcivated and flowered. One of the finest apecimens which we have seen is now in bloom in the collection of Sir Frederick Wigan, Care Lawn, Eant Sheen. Tae plant bear tour flowerapiken, one of which bears eight fluwers, and the others aeven on each. The large wax-like flowers are Indian jellow, closely marked and tinged with parple-brown. Its fragrant flowers are borne on toat erect atem, and they arrange well with the broad arching pale-green leaven, J. \(O^{\prime} B\).

\section*{Cattleya aurea.}

There is a grana form of Cattleya aurea in fluwer at A. Wardurcon, E q.'s, Vine Lodge, Haslingden. The nankin sepals and petals are large, stand more in a plane than the typical furm, and the lip is not only large, but 18 beantifally interlaced with gold lines frum almost the extremity to the base; the glowing crimson that forms the ground colour makea a most caphivating setting. There are six fluwers fally expanded on a well-culsivated plant, the flowers atandir g cluar above the foliage on a atiffion pedicel. It is one of many grown here, and well grown, too, by Mr. Tom Loitaouse, Mr. Warburton's gardener. Tae more oue sete of thatine apecies the more is it appreciable, because of the great variety in the distribution of the coluare, particularly in the labelinm. J. A.

\section*{The Bulb Garden. \\ BELLADONNA LILIES.}

Amona the great army 0. hardy buibous plante, few can vie witn these charming plante, either from a decorative point of view, or for general chastenean and beanty. Quite anlize many of the choicer balbous plantn, these alway thrive best when let atone. Ot courne, to enaure accens, all auch thing must have been well and properiy planted, and this, too, in salcable postions; indeed, postion is one of the most important itema to ther autumate anccean, The base of a south or south-west wall is the most untabie place for them. Here they will receive that amount of an and warmth which is so condacive to healtafal progrens, and protection at other timen from the extremes of weather; not that they are tender by any mean, for while the weather is aevere they are benenth the soil. The chief element in their nuccess lie in the original planting, which must be very deep. A trenca, quite \(2 \frac{4}{5}\) feet deep, should be made with everal inche of rough matorial, for drainage, in the bottom. Unlems the original soil in fairls good to the required deptb, other woil should be aubatituted. If peat and rough leaf-soil and turfy-loam, with plenty of arp aand, to the depth of one foot, be placed beneath the balbe, thin will last them for years. The preparation of the wil, however, depends to a large extent on the nature of the original soil. Anyone who may wiah to make a specialty of these handsome bulbs, will do well to atart properly; this done, they need no further attention in this respect for a dozen yeara at leat. In districtin where the soil is not well drained, it will be best to raime the level of the
border rather than excavate to the required depth, as it in not desirable that the roots should be in or near to water in winter-time. Moreover, the will would soon our, and be unfit for the roots, and sickly plants would result. These are itema, how ever, which all will be able to decide, according to individual circuastances. In light, warm, and gravelly soils, the use of well-decayed cow-manure will be an advantaga, buried in the soil deep belom the balbs. Having the trench and drainage ready, place a sod of turf over the latter, and begia by ro placing the best soil to 12 inches deep, working in plenty of decayed manare, bat not in contact with the bulba. These latter may now be placed in position, so that the top of the bulbi shall be about 8 inches below the surface. The bulbs aholith well surrounded by sharp sand, and an additional sapply of gaod, prepared soil, without masure, bo placed in to the depth of the balbs. Make all moderately firm, and fill to the surface with ordinary soil. In exceptional intances, where from any cause the depth given cannot be obtained, the bullo may be planted nearer the aurface, provided that 6 inches of short manure or leaves be given an a mulch each winter, from November to Febraary, If good, sound, dry balbs are obtained, thene maj be planted at any time, from late autumn to end of April; but the sooner root-action commences, the better the chances of success. It is sarprising thene fine hardy bulbs are so rarely seen in private gardens, when they give so little trouble to tho cultivator. For weeks past, daring Augast and Suptember, some notable examples have been making a grand display at Kew. Such inatancer fully demonstrate their real value, and is worthy of frequent imitation. \(J\).

\section*{CATTLEYA CULTURE AT Stand hall.}

The cultivation of Cattleyas and Laliam and their varioas hybride at Stand Hall, if not phenomenal, is more than ordinarily succesfol. One conld mee in periodical visite the rising importance of that genas year by gear, until now it is a matter of common com-ment-the vigour of the plants, the quantity and quality of the flowery, and the maintenance of a sound and endaring constitation of apeciesand varieties. Mr. Statter, the genial owner of this renowned lot, it a gentleman well known for helping forward advanciog horticaltare, not only in the diatrict in which he lives, but the zeal and ardour and time which be gives in assisting the Orchid Committee of the Royal Horticultural Society in their laborious but highly useful work in rewarding aterling merit, is well known to many outaide of his own committee. The collection gathered together at Stand, no matter whether it be Cattleyas, Cypripediams, or anything else, is notable, not only for it numbers of varieties of pecies, but for the choice character of each individaal. The training experienced at the fortnightly meetinga is accountable in a great maarare for thit, as poor quality plants are intolerable in the eyer of experts, and now we have all our best-informed orchidists going for selection; hence the appreciation in value of good Orchids. But it i caltivation that we have taken as our text in this notice, and no doubt it will be interenting matter to tell, at exactly *) pen-portrayal can make it, the aybem an pric: tised in this charming Orchid home.

The house in which the chief lots of Cattleyar aro growing is about 30 feet long by 15 feet wide. It is span-rooted, standing north and south, with its perpendiculars, half brick, half wood and glane, 6 feet high. The height from floor to apex is abont 10 feet, leaving, therefore, the wloping roof on either side st about an angle of \(30^{\circ}\). This, an will be noticed by thowe who follow me, is a flat roof. The hoast is substantial, without rafters, but with strong matragals, all grooved for catching the drip, placed about 15 inches apart, ranning from the perpendicular nidet to the apex, filled in with 26 -0z. glase. There are 10 longitudinal openings on the roof, only aportures hers and there on the western alope for roof ventilation, 0 , which more anon. The brick wally are also fisted with
aperture covered with wooden ahutters, and lined in the interior with wire-gazzo. These apertures are, judgin! by the eye, about 5 feet apart, and are placed directly opposite the lower tier, or return-pipe, in the beating apparatus. There are four rown of 4 -iach piping-two flow and two retarns, which, with a usetal boiler, are fully adequate, even in this very exposed locality, to do the work in stress of weather. The interior presents a stage fally 5 feet wide on either side of a 3 -foot passage. The atage rests rather under the top of the brick side, and is of strong flaga reating on pillars arched from pillar to pillar, so that air may not be unduly impeded in pasaing from the bottom ventilatora below the stage and up through the house itself. It will be seen therefore by those who know anything about hothouse bailding, that the Stand Cattleya-house differs from most of those recently erected in not having a skeleton or doable atage. Oa the flage are placed a few inches of what appeared to the writer to be more chippinge of coal rather than charcoal. Any way, that is the covering opon which the plants in pots atand. Nearly every one on the side stages is raised on an inverted pot, and indeed this is absolutely necessary, because of the roots, which we shall advert to presently, going down like living things in earch of some apport to take hold of. The ground below on either side of the pansige, and indeed the passage itself, is covered with a thick layer of this e-called chip-coal. The path is latticed, and accumalated water, or rather surplas-water, from watering, goen down into this black mediam. The roof is shaded with a kind of lath-blinds, much brosder in the lath than usaal, I should eay 3 inches wide, and placed proportionstely wide apart, thus giving a maximum of light, and at the ame time acting an a mofficient preventative to acreen the gem within from suabarn. That comprisen the ground-work for the syatem in practice ; and now for some of the resulte of the practice itself A few sentences, however, on the reason why top. ventilation is not more liberally provided for, Both Mr. Satater and his accomplished orchidist, Mr. R Johneon, aver that half thesuccess of the cultare within is attribatable to free ventilation at the bottom, and little, or an little an practicable, at top. The old yyatem was the converse of this, and hence, whenever moistare was generated within, it went out at a gallop at the top. The condensation of moiature, particularly with a down-going san, is of the highest importance for successful Catcleya cultare. Theae flat-roofed housen, too, are capital in respect of the aun not beating too fiercely apon them. The cool atmosphere coming in from the low ventilatore makes a "wweat" home, pleasant to the olfactory nerves of an expert orchidist. Mr. Johnson nej that from May to September his bottom ventilators are seldom, if ever, ahat, "pight or day," and when the top ventilator is used, it is only for a few hours in the middle of the day-alway shat before damping down.

There are three kinde of atenails or receptacien used for calture ; first, pote mostly of common make; second, square teak baskets; and third, deep cylindrical teak baskete of rather elegant form, tapering from top to bottom. In the firt-named, the atronger apecimens of the race are growing; in the necond, the mediam lot; and in the third, the choice bits of slow and dwarfish growth, and the auxiliarien-bita cut off. Cattleya gigas the Stand Hall variety, was producing flowers 10 inches across, and such flowers with ruby negment filled ap as we like to nee them; and then the lip, gorgeone in its intennity of cardinalparple, with two great yellow ejen, one on either side, the crest lovely, a king among Cattleyas; the leaven were grand, and the root coming over the pot-rims. Then alongside of it was a very deep-coloured variety of Lxlis tenebrona, one of the greatest gem: in the grandis way in modern times, with nine pikes, each three. flowered-great flowert, too, in the height of exuberance. Leelia parparata Statteriana is atter the Hardyana type, with a lip of equal brilliancy, and the aegmente broader, and white an nowflake.

There is a mont besatiful hybrid between Lelia parparata and Cattleya Warnesi magnifica, from the Jales Hye collection, temporarily named Pariainaa \(x\), of anuaal brilliancy, and growing a way like it fellows, although not yet up to Stand Hall growth. Cattleya Johnaoni \(\times\) C. gigas and Loddigesii is very uncommon. Lælio-Catteya \(\times\) Canhamiana alba, Lwlia purparata \(\times\) Cattleya Mossiza are gems of the firat water, the roots going down quite 12 inches after fllling the pot, delighting one's eje at much at the plant iteelf. Cattleya Scatteriana, a natural hybrid of aurea type, is growing in this climate in a way which we do not often see aurea do; it roots are actually touching the cos', after dipping past pot and inverted pot, to a length from the base of nearly 2 feet; and what a gem that selected variety is !more valuable eved than many of our home-raised hybrids. La'io-Cattleya \(\times\) Poobe Leelia cinnabarina \(\times\) Cattleya Mosaiæ in quite a atrong, finely developed plant; and then how glorions the flowers! The nankin colour is empbanised, and the aize of \(L\). cinnabarina more than doabled. This is grand work on the part of the crom-breeder. Cattieya auperba alba is beantifally developed, and is likely to be shown at the fortnightly meeting (it has been so since this was written) - a capital managed plant of one of the most difficult to do of all Cattleyas. Then there is \(\times\) C. eximia, \(\times\) C. Nisa, in which the parente, C. gigas and C. crispa, are both observable, and the roots here, too, sometimes clambering on the rim and over the side of the pot, and cometimes dipping vertically, bowing abandantly to the practised eye the mitable character of the atmosphere. In houses kept is the dry order day and night this scarcely ever occurs, the roote electing to take hold of the buint-clay pot, which is the only moint mediam comesat-able for them. C. \(\times\) Macænas is in rude growth, forming double leaves to it Alowering bulb, from the centre of which the shouthapring. Cattleys crisps superba, which wa honoured with a first-clans award at the chief seat where Certificates are given, and where fow are thrown away upon oven highclase articles, wat showing dozens of flowere. The charming Lulio-Cattleya \(\times\) Ameniz, C. crispa \(X\) C. maxima, is another grand example of extra growth, and abundant root-action; indeed, many of the bybride are freer in root-action than some of the imported apecies. We matalways excapt C. labiata, the root-action in which is pronounced. It seems to be the easiest to tranaport afely, the quickent to recuperate, and freent to flower of all among the great host of sectional forms. Cattleya Rex is doing extreordinarily well. It was in bad repats as a doer at first, but here it is rampant in a good many plants, but not so variable in variety as ita compers. C. Claesiana of the C. intermedia type differs from many in respect of making its growth in winter, like Lelia ancepe and it brood. C. Bow. ringiana is a giant to grow in a climate of this kind; its pushing leads are as thick and prominent as one's thamb, and a glorions coloration it makes when in flower. The rather anique C. Mendeli leacogloma is doing grandly; indeed, the varieties of Mendeli here are of pronounced good quality, and there is no absection that command general attention so mach as this, and then the vigoar of the growths and the dark green of the leaves keep one's eve upon them. C. \(\times\) Pallan and Lamia parparata, and C. Dowiana, with its intense velvety-purple labellum, are smong the mont distinct of hybride, and the plants here show great vigour. C. \(\times\) Lord Rothechild, C. \(\times\) Gankelliana, and C. aurea has the vigour of Gavkelliana imparted to it. The wonderfully broad leaven induce long roote, pushing downwards and breaking at intervals, close intervala too, with ubsidiary onen like a crop of lateral bude on a dwarf Apple tree. No more remarkable growth for a rarity is visible than that of C. Gaskellians alba. Looking at other albinos of aimilar species, this is a veritable giant, and at white as paper. Bat this is an emporinm of raritien which wo cannot linger mach longer upon. It wat with pardonable pride that Mr. Johnmon pointed-" there are my three relected Cattleyas
that have won honoure-C. aures Statteriana, F.C C. 1890 ; C. Statteriana. F.C.C., 1892; C. Warteewiczil Countest of Derby, F.C.C. in \(1894^{\prime \prime}\) The latt in a gem of the first water, and what in gardening phraseology is called a white gigat. It hat been divided into two pieces, each ruaning neck and neck, both about showing for flower (see, for description, Gardeners' Chronic'c for Soptember 28, p. 360). Toe open cylindrical raft, letting in the air in the suepended position, evidently anits this plant.
In another house, the counterpart of the one above deacribed in detail, the Cypripediums and the Letian divide the pride of place. Lee'ia elegant in many varieties is doing well, somo pieces in rather indifferent heslth, bought in, have bean cut up , and are gaining atrength. L. ©. nobilius, Blenheimensis excellen:, Cheleoni, and one called Statteriana, with white segments and brilliant lip, attract attention.
The seedlings are grown here, and wonderfully well they look in their comparative initial atage There are some promising brood of Lalia cingabarina and Cattleya Lawrencians, of C. Banderiana and Lselia parpurata, and many others. The batches are in mall thumbs, plunged into thallow seed. pans, and as they increase in size, they are potted on and hang up on their own account. Mr. Statter is atrongly of opinion that the bent seed-bed for hybrid Cattleyae is in pots, where the plants have not been moved for two or three years, among decaying material, and where watering is of little consequence, because of the little value of the plant. Seedlinge will not do, for a time, with a season of reat, only, aingularly enougb, I never knew them to coms ap unless in the peat surrounding a living plant. Tae little embryon in a house of this kind were getting on. We never can have too many Cattleyas ; there is so much difficulty in getting a large brood from one seed-vessel - so different from Cypripediam and Dendrobiams; and Mr. Johnson would not ow a seed upon the surface of the pots where any of his choice plant are growing. Some people might ay that the extraordinary exuberance of the plante was attributable to their living in an artificial atmophere. It is not eo. The syatem here is to have a rest and a drying, at proper seasons, and, moreover, no plant is myinged or watered overhead; the moistare necenary for leaf-feeding is obtained from evaporated and condensed moistare. The material used it twothirds beat fibroan peat, and one-third bent aelected sphagnum-moss-a very common mixture. In fine, they are a marrellously fine lot of plants, looking even better now than I ever asw them; they are a comparatively amall lot, bat everyone is worth looking at, and go when you will there is momething choice in flower. \(A\).

\section*{SOOTLAND.}

MOREI_LO CHERRIES IN THE GARDENS OF SCONE PALACE, PERTHSHIRE.
Mb. WARD doe well to refer to these fine trees in particular, in the Gardeners' Chronicle, an well as to the importance of the general caltare of Morello Cherries. And an he appealn to Mr. McKinnon, who nucceeded the late Mr. Holliday as gardener at Scone, Mr. Smith of the Viceregal Lodge, Dubliny and to myself, for information about these modele of trsining and fertility, I baten to recall a few memories about them. I do this the more readily as Mr. Ward frankly confenen that the Scone trees have been his object-lessons in Morello-growing through life. Doubtlens the ame feeling has largely prevailed among the many lade and men that graduated in the gardens at Scone. It was scarcely possible for any such to plant, train, or gather Morellos anywhere without recalling the gianta they had aeen in their Scone day. There were other good features in the old gardens, bat the Morello Cherries on the north wall of the eath garden were the lions of the place.
None but the master, Mr. Jame Dodds, in my time, or Mr. Blackie the foreman, was allowed to
prane a single twig off these Morellos, and I shall not readily forget the violent quarrel that arose with a fresh joarneyman from Dicksons, in Edinbargh, miataking his orders to go and train and nail one of these trees, went to another, and began to prane and spar the giant Morello as if it had been a Mayduke or a Black or White-heart Cherry !-an act of vandalism which was threatened with instant diemienal.
Another rule about thene trees wan, that if more young wood was left than conld be laid in without overcrowding, the surplus shoots were to be brought under the notice of the mater or foreman before removal. Seldom were any but the moat experienced journeymen, or handy apprentices in their last year, allowed to train and nail thene Morello Cherry trees; and in most casen, apprentice handa were only allowed to lay in the current year's wood after all the primary, eecondary, tertiary, or other oldar branches had been diaplayed. I alao recollect several casea, after several day: had been apent on one of these fine Morellos, nome error of jadgment in the equal distribution or atraightness of the branches and shootiets would be revealed. The foreman and master, and occasionally a jary of joarneymen, would sit in judgment on the trinning and nailing. If thene were condemned, the faalty part, or the whole tree, was driven into chaos by the master, and the entire work of training and nailing begnn afresh. Hence it was with fear and trembling, somewhat atrengthened by professional pride, that mont of an took part, for the first time, in training a part of tho model Morellos on the north wall of the nonth kitchen garden at Scone.
Bat the reward was aweet, when, after a week or more labour, the tree wan finithed, and the leading journeymen, foreman, and mater pronounced it perfect, or like cantions Scotchmen, drawled out, "Yen, that will do-George-David-Bob, but that the third tertiary from the top in not quite at the ame angle all the way. No, you need not alter it again, ye've been lang enough aboot it, mon, it'll do gie weel." Grand technical training for eye and hand were these Scone Morello Cherry trees. Neither was fertility ascrificed to form nor aymmetry. From base to aummit of those 18 -feet walls (I had lately remembered them as from 2 to 4 feet lower, but have no doubt of Mr. Ward being right as to height), they were atudded with Cherries of anique colour, size, flavour. Others will probably have something to say as to soil, site, cultare. I remember nothing special of either. The Cherry-borders were surface-cropped with regetablea in the usual order, and have probably been covered with Violets and Valley Lilien, since these have been oo widely grown for the London season. The correaponding wall in the north garden used to be cropped with Gooseberries and Carranta, bat the Morello Cherry border in the sonth garden bad no bushea in my time; the site was dae north, as near as may be. The soil was a atrong loam reating on clay, and rather imperfectly drained. I wa present when a considerable portion of the garden was trenched. The manare from the atables went to the farm, and not to the garden. The chief manure for the large garden consisted of cowmanuure from the large Park, ntretching away miles from the Palace, and fully furniohed with a stock by graziers, and leaves and leaf-mould from the miles of woods. But the art of malching was not mach practived in these days, unless in the vineries, where most of the inside roots had about a foot thick of fresh or two-year-old cow-dung annually; but I do not remember the grand old Cherry treer kaving any of this atingo or other atimulant.
I think these treen partly owed their general immanity from fly and all other insect peata to the henvier rainfall and mointer climate of the north, to the holding loam in which they grew, and the heary clay on which it rested; while it cannot bo doubted that their enormous aize, long life, and annual fertility There largely doveloped and maining nautained through almost written inch, of weakly or diveary foot, I had cut out, and a fremh of wepply of or joung healthy clean wood laid in all over througtout the trees. Their
life-vigour and fruit-bearing capacity were thus renewed every year. Some will answer shortly, "Yes, it was a Cherry-noil." No doubt it was, and is to some extent. But no other Cherry trees that I can remember in the aame noil ever became models of symmetry, fertility, or longevity. D. T. Fish.

\section*{Royal Botasic Garden, Edinburgif.}

Of plants in flower recently, mention may be made of Begonia Teancheri, a tall-growing apecies, planted out in a bed in the Palm-hoase. The atronger growth measure in some instancen 6 feet or more in height, and bear large leaves of a dark green colour above, the under-sarface affased with a reddish colour. The plant in a rather shy flowerer, the inflorescence bearing not more than a dozan large pinkinh Aowers. The outer parts of the wings of the ovary are darker, while the ovary itaelf is white. Every flower examined was a female; the malen, if any are produced, having dropped whilat still unexpanded. B. Teuscheri is a native of Malaya, and although it may never become a popular plant, on account of its shy-fowering habit, it is atill worthy of a place in any collection of these planta.
Achimenes lanata. - Thir pretty little Genneraceous plant is perhaps better known under the generic name of Mandirola, and, indeed, it has some renemblance in habit to the general run of garden Achimenes, is of a dwarf habit (not more than 4 inches high) ; the foliage forms a dense mass, the under-nides of the leaver covered with a woolly pubencence. The solitary axillary manve-coloured flowers rise juat above the foliage, and change with age to purple; the lip of the corolla is atreaked with purple, and yellow apots cover the tube. When well grown, it is a plant that is almays admired, and the treatment accorded it is that uacally afforded Achimenes. It was introduced from Mexico nome yeara ago.
Mussenda luteola.-A good plant of this tropical African apecien planted out in the stove has for more than a month past been attracting notice from visitors, it being covered with flowert, which appear in terminal corymbs, every main and lateral growth bearing flowers. The showient feature of the plant is the large white or yellowish-white bracta, the flowers are of a bright yellow colour, contrasting well with the bright green foliage. Being a native of tropical Africa, it requires a brisk heat and needs no shade, Cattings strike readily. The plant when grown in a flower-pot is apt to become stunted and less prodactive of bloom, unleas accorded liberal treatment.
Plumiera alba.-The beartifal tints of the fragrant flowert of Plumiera are very agreeable in their season, although they have little claim when out of flower to be reckoned an decorative plants, they are worthy of space in our collection. Under caltivation the atems are anally unbranched and amooth, carrying a crown of leaves at the apex, abont 1 foot long. From amongat these the inflorencence rises upon a atout peduncle, and bears from twenty to thirty flower,, which expand in saccension, the plant thas continuing to flower for some time. The petals are white, shaded with yellow towards the centre of the flower, the latter being from 2 to 3 inches in diameter. A warm greenhouse in the proper place for it after the foliage has fallen, water being remewhat aparingly afforded until signs of growth reappear. Plumiera rosea and P. incarnata are two other species grown here, the latter is a native of Pera, while the specien under notice comen from India.
Jacquemontia violacea.-This in an eanily caltivated, excellent itove climber, doing beat when planted out and givan a light position near the roof, where its alender twining stems nometimes reach a length of from 15 to 20 feet; these, howerer, should be reatricted as to number, no as to prevent overcrowding of the foliege. The mooth green foliage is cordate and pointed in shape, and from the axils of the leaven spring the pedanculate cymen bearing a profusion of flowers, with light-blue, campanalate corollas, 1 inch in diameter. The plant continues to flower for several monthy during the mummer and antumn. A native of tropical America; it has long been known to cultivation, having been introduced in the early part of the present century. It in figured in the Bot. Mag., to 215151 , ander the name of
Convolvalus pentanthan. \(R\). L. Harrow.

\title{
Colonial Notes. \\ AUCKLAND, N.Z.
}

We learn that Mesrrs. O'Leary Bron., reedraman and plant merchants, have lately establinbed for themselves a basiness in Queen Street, Aucklond Mesars. O'Leary are starting after many yeare expo rience in a aimilar establishment, and as their atse logue given evidence of enterprise, as well mod determination to succeed, we trast that the renlo of their enasy will fally juatify them in makiog tit

\section*{Jamatca.}

We have received the Bulletin of the Banded Department, Jamaica, for August, 1895, and whethe the contents inclade auch topics as:-Ram, Jania yeat, Colocynth, tillage of the soil, its parmonas importance; importation of nelections of seeds R Ryout on Sugar-cane Diaeane ; and ansimilation of nitroqn by plants.

\section*{Grenada.}

The Bulletin of Miscellaneous Information, Botanis Garden, Grenada, May, 1895, includes papertapon:Liberian Coffee, Grape-frait, Kola Nat, Lemai, Logwood, and other aubjecta.

\section*{British North Bobnro.}

The Official Gazette, from British North Borme, for Augast 1, 1895, contains the following prote-mation:-
"Orchid Collecting.-No permit to travel mo the collection of Orchids in Province Keppel and the District of Kinabala is to be issanad until farther orders. Ang person travelling or collecting Orebids there without a permit is liable to a penalto of 500 dole., or to impritonment ander Proclamation VII. of 1890. Sandakan, July 9, 1895."

A Botanical Station in Central afrion,
The Foreign Office Report, C. 7829-2, contain some intereating information on the botanical and agricultural resources and prospects of the Shibhighlande. The writer, Mr. Alexander Whyte, who is head of the acientific department, gives sa accons of his ancceneful effort to eatablith a botanical gardan at Zomba. The results seem to nhow that Zombs in eminently suited for the experimental cultivation of food-plante and other plants of economic valm. English Potatos grown from seed tarned out ramartably well. By constant nelection, several laprs well-formed, mealy varieties were obtained, equal in flavour to any English Potaton. Happily, too, thery ehow no sign of disease. Barley and Oats fros English seeds were successfal; while Whest grom from seed obtained from the missionaries at Tu ganyika, yielded at the rate of nine bashels to the acre, without manare. A arries of Conifers, Cypratl, Thoja, and the Milanji Widdringtonia grem to \({ }^{\text {u }}\) average height of 5 feet in two and a half yearn, mhif some Eacalypti nhot up 45 feet in the asme perial A large terrace flower-garden made a brili, display; Balasma, Phlozen, Zinniar, Mignonette, others seeded so freely, that they became gade weed. Pelargoniams grew to the height of hedget and Sauflowers and Dahlias shot up into tall, obrab like plants. Petanias, Pinks, Carnations, and, in fact, most of the plants experimented with wer nuccensful.
Mr. Whyte atrongly advises extenaive caltintions of india-rabber and gutta-percha yielding playize The cheapneas of land and labour would mato former, at any rate, a most remanerative rentarit Fibre-plant cultivation would alao admirably the nativen. Unfortuaately, the formidable fly will seriously interfere with the introdnctiob anel rearing of domentic atock, while a gadid dy ( 0 bum dy, latipes), the size and shape of a large blae-bothe oud is aiso most haraseing to hornes and cattle. Thouther naid to be a great sconrge in East Africa, the liat tho is meldom met with in Nyassaland. As regurtrit of Tsetee-Ay, ameariog the animale with a kerosene oil and cow-dung, is anggested ar 1 mul effectual preventive. The West Indian J burrowing flea, has also juat reached hoo dium round lake Ngassa and the upper Shirf, haring iner ib migrated eastwards from the west coast, in 18793. was introduced


Fig. 80. -fall of anevcca, in tre forbets of anatama ajtra, matiagscar.

\title{
The Herbaceous Border.
}

\section*{teleria speciosa and T. speciosis SIMA.}

The Genera Plantarum changed the name of Telekia to Baphthalmam, and as there are only four species of Buphthalmam, that work departs from its uaal habit, aud describes them all, with their synonyms. Two of them are very well known, being common garden plante. The type of the genas, B. aalicioliam (Lin.), has narrow, lanceolate leaver, dencribed by its name, and a forest of atalks apringing from the base to about a foot high, and yellow flowers less than thone of a Corn Marigold. The next generally known as Telekia specioan (Bing.) is a very coarse plant, 5 feet or more high, with broad, cordate leaves, and heads several in a bunch, a large dise, and long, narrow rays, like those of Inala glandalosa. It is figared in Bot. Mag., t. 3466. It has the habit of Inula helenium, and is a good plant to naturalise by the side of ponda. This is the plant which Mr. Frestifeld deacribes as growing in auch luxariant masees in the Cancanus, as nearly to hide a man on horseback. It is often offered in catalogues as T. speciosissima, probably for no other reason than a fondnes for aperiatives in plat names. As for the true T apeciosissima (D C.) which is described in the Genera Plantarum as intermediate between the two last menuoned, I do not than I have seen it in cultirasion, bat is said to be found in the warmer parts of the Isalian lakedistrict. The tourth species, B. inuloides (Moris) is a little known Sardinian plant. I may observe that in the Hand-liet of Herbaceous Plants iesued by authority at \(\mathrm{Kem}, \mathrm{Baphthalmam}\) allecitolium ( \(\mathrm{L} \backslash \mathrm{n}\).), and B. speciosum (Schreb), which is the same an T. apeciosa (Bing.), are by mitake made aynonymous. It is probsbly a printer's miatake, and the aecond name should have been at the same distance from the margin as the first. The two planta are certainly very distiact from one another. C. Wolley Dod, Edge Hall, Malpas.

\section*{INDIA.}

THE NEW PUBLIC-GARDENS SUPERIN. TENDENT AT NAGPUR.
We learn that Mr. John Horne Stephen, formerly of Kew, and lately carator of the Lal Bagh Botanic Gardens at Bangalore, Mysore, has been appointed Saperintendent of the Pablic Gardens at Nagpur, Central Provinces of Indis, in sacceasion to the late Mr. J. R. Ward. Mr. Ward died in Jannary last from mallpox complicated with other maladies. He had only held his post since 1813 , bat had already won general regard; his nutimely death has cat short a career of promire. "Kew Bulletin," September, 1895.

\section*{Trees and Shrubs.}

\section*{WHITE WILLOW.}

Tex Hantingdon or White Willow, Salix alba, is a tree so useful for many purposes that there is great fear, according to the September Kew Bulletin, that the supply of it may soon fall short of the demand. The bark of Salix alba is ased for tanning, and yield. salicine. The timber is emploged in tarnery, millwork, coopering, and for making cricket-bats, The charcoal is excellent for the manafacture of gunpowaer and for crayon. More than one complaint has been received 'rom bat-makers and from timber merchante, to the effect that true white Willow-wood is becoming practically unobtainable, for that, in epite of continual search for new applies, the genaine article is rarely fortheoming, and even when found
is both carce and contly.

\footnotetext{
A New Golden Eldrar.
Under the name of Sambecas racemona plumona
folii sureis. Mesurs. K . Wezalenturg foliie sureis, Mears. K. Wezelenburg \& 8 on, of
Hazerswoude, near Leiden, have
}
new variety of Elder raised from Sambacus racemosa plumosa. This fresh introduction has pinnate leaves, the leaflets being again cat into linear or lanczolate segments. The colour of the leave im bright yellow, the very jo ung foliage being atriped with brown This Eider is quite hardy, and retains its colour until late in the autamos, so on all accounts should prove a valuable addition to our decorative shrabs.

\section*{The Week's Work,}

\section*{TEE ORCHID HOUSEB.}

By W. H. WHite, Orchid Grower, Bupford, Dorking.
LAELIAB. - In the house or division devoted to Mexican Orchide, Lelia albida, L. autamnalis, L. Gouldiana, L. Marriottiana, L. acuminata, or L. peduncularis, \(L\). anceps and its varietien, are now throwing up their flower-apikes. From the present time onwards until the flower-spikes have attained their full length, it is advisable to carefully examine the plant for insects, and clear them of dirt and dust, washing the pots. If the plants should require re-arranging, this may now be done. As a rale, Læias are afforded too mach water during the flowering season and the winter, whereas the roots should be kept merely moist, and a temperatare maintained afficient to fully develop the blooms ; but as mon an these are expanded, a very amall amont of water will preserve the preudo-balb plamp antil such time as growth recommences. All mpecie of Barkeria will require a aimilar treatment.
vanda tears is an Orchid that growa luxariantiy in a sunny part of the Mexican division. As regards this plant, there is nothing in the formation and completion of the season's growth to indicate the begianing of a resting season, and the grower has to be guided in this matter by the amount of growth made since the plants bloomed. If he be satisfied that sufficient growth has been made, the plant hould be kept less moist than in nummer, atill not no dry at to canse the ntems to become hrivelled, or many of the lower leavem will fall off Vanda teres, if kept in a temperature of about \(55^{\circ}\) to \(60^{\circ}\), and afforded an occasional yringing overhead on warm sunny day: will offer no difficalty, and will bloom profuely.

Cattleya bowringiana. - At the present time this plant forma the principal attraction in the Cattleys-hoase. Although its individal fowern are maller than those of mont Cuttleyas, their rich colour affords a fiae effect, and especially by artificial light. Generally, it is a plant of easy culture, it requirement being the mame as those that suit Catileyas generally. Immediately it has finiabed blooming, repotting if it sbould be required should be attended to, because in a very short period roots will atart a way from the base of the flowering balbs, and delay in potting might reault in injary to these, After the fowering is over, whether the plants have been diatarbed at the roots or not, they shoald receive only aufficient water to keep the paeadobulbs and leaves fresh-looking until growth recommences. Cattleya Percivallisna is another desirable antumnal-blooming Orchid, and this plant having completed its new peado-balbs, ahould bs kept moderately dry at the root, bat avoiding overdrynens, which may renalt in abortive flowering or deformed bloom.
sobralias have been later than usaal in flowering, but this notwithetanding, growth is already well advanced, and many large roots are coming away. If repotting or divivion seem called for, the present is a favourable time for doing either, as establishment is rapid. A healthy specimen needs conniderable pot-space, and ample drainage is very necestary. The soil used for Sobralias may consiat of lamps of fibry peat and sandy loam, with a mall quantity of aphagnum-mose, and a moderate quantity of clean crocks. In potting, keep the bace of the plant below the rim of the pot, and press the soil firmly together. When in full growth and rooting freely, Sobralias need to be plentifully sapplied with water, Towards the end of the year the breaks or tem: which have flowered, on fully eatablished plants, should be cut off at the ground-level, and the joung shoots tied out clear of each other. Sobralias ancceed well in an intermediate house the whole year.

ODONTOGLOB8UM CITROAMUM - Plant which are now sorming peeado-bolbenhould be kept in the lightest available ponition, and afforded plenty of water at the ront till growth in completed.

PIANTHB UNDWR GLABS.
By W. H. Smite, Gardener, West Dean Park, Chichute, STO E.-Allamandas, Stephanotir floribands denias should bu looked over, and all weat Diplaremoved. Saading will not be needed now. Cboon and other fine follage plants mast ba placed Crotoni glase, and in as light a position as postible. As the days becomeshorcer, it will be necesary to aue more fire-heat, bat it is batter to allow the temperatury to fall a little than to have very hot pipea, which an liable to cause insect peats to breed. A temperi. tare of \(64^{\circ}\) by night to \(75^{\circ}\) by day is quite what enough for the majority of stove plants. Kup plenty of moisture about, and fill the evaporatiey troaghs regalarly. Gloxinias should be patanay if a warm dry place underneath the greenhomenaze, where drip will not reach them. Caladinas and Gloriosas, if they have been gradually dried of, be atored in a similar situation.

CYCLAMENS.-Seediinge nown in Augant muly now be removed from the cold frame, and woy Which are fit pricked off into well-drained pans of pots, containing a compost of good loam, leafotoil, and and, merely cuvering the corms with noil Place them on a light shelf in a warm greenhome, and keep them lightly ohaded daring bright meather, A prinkling of noil should then be dusted over the seed-pans, and these pans remored to the atore so enc arrage the seed left still in the soil to germinate. Cy ciamans iatanded for towering daring the winhe and spiag a culd occasionally be affurded weak manure-water, and wask sout-water. Maintaia temperasure of aboat \(60^{\circ}\) by day, and \(50^{\circ}\) by night.

ROse house. - Ter Rose in potm for arly forcing hould now receive astention. Tae drainage must be examined, and the weat shoots cat oot. Top-dress the plants with rich unctaons loam, and add a small quaticy of finely-broken bones. Piace them in a temperatare of about \(50^{\circ}\) by night and \(60^{\circ}\) by day, and if a gentle butcom-heat can bo afforded them, so much the better. Sjringe the plants twice a day, and avoid cold draghta, or mildew will aoon appear. Tais mast be checked at once when notic \(=\) d by dasting with flowern-of. salphar,
herbaceous calceolarias should be potted into 5 bach putis a compost of good strong lonw, leaf-soil, and decayed cow-manure in a dry atate will sait them. Put ratner firmly and deeply and do not water them for a few daya alter potting. Place the plants in a cold frame near the glass, and afford plenty of air daring mild weather. Calcoolaria being very mbject to green-Ay, the plants should be lightly fumigated on ite first appearance.

CINERARIAS.-Piante from late sowingy shonld now be potted into 6 inch pots; and placed in cold frames, well covering these with mat when frost in expected. Early Cinerarias commencing to athow fluwers bould receive a top-dressing of a good fertiliser, and be placed in a little warmer tem. perature.

\section*{THE HARDY FRUIT GARDAIT.}

\section*{By W. Popr, Gardener, Highelere Castle, Newbury.}

THE GATHERING AND BTORING OF FRUIT,-Frait gathering in all the warmer parte of the connty will now generally be drawing to a close, except in the case of a few very late varietien of Apples or Peara, which, unless they come away easily from the shoot are sure to brivel. Take adrantage of eremg fine dry day for pushing on with the in gatherigg and remember that no matter how hard an Apple of Pear may be it is eavily braised, and requires aro careful handing as egge. Any fruit which may hare been atored for about a week thould be examinet, removing any fruite that how signs of decay. Wein fruit ie spread about on shelves in one layer, the examination is a light matter, but when two or more layen lay on the shelven, a good deal of care is necensery in nearching for decayed examples. Ripening Pank, require almost daily examination, at when in deciny one frait will spoil all others touching it.

FILBERTS AND NUTS of various kinds should bo atored somewhat thinly on shelves in an airy, not too dry a room, or the kernela will binide The Filberts keep longest when their hats ane retained, indeed, they then have the bent apperid ance as the densert. The frait - room being be kept cool and dark, ample ventilation beind provided at the higheat part of the root, firts good use thould be made of this for the daring few weeks in October and Nuvember, i.e., daring the time that the fruita part with a good dea
anally leade to great deal of los from the exc: sive degres of moisture contained in the air of the ronm. If it can be managed, Peara bould not be stored with Apples, the later seeping longent and beot at a lower temperature than nuits all toe varieties of Peary, except the longest leepers. It space and convenience are at command, choice Puars should be wrapped ia some light sort of paper, and atored in drawers, boxes, or large plans pote, in the case of the last covering the tops with other pota or wooden covera. Nearly all kind of Pears are improved in favour and texture by placing them in a warm place to ripen for the table. The exceptiona are varieties like D jyenó du Comice, Seckle, Lonise Bonne, and similar quick-ripening onem lavting bat s short time in use. Tae warmth to which Pears are exposed shoald not exceed \(70^{\circ}\), and only enough fruits to meet the demand ahould be hastened in this manner
coobeberries and currants. - Gooreberry and Carrant-bushe covered wich mat or material on parpose to keep the fralt to a late date, should be aucovered on fine days to allow the fruit and the ground beneath the bushe to get dry, and for the removal of decayed berriem. Where new plantations of these fruits have to be made, or gaps in exiating ones filled ap, planting may at once be proceeded with if busbes are grown at home, as the earlyplanted atuff will get established to a certain extent before hard weather sets in. A mulching of rotten manare abould be applied as soon as the planting is completed. Sach early-planted bashes start into growth in the apring as it nothing had occurred.

\section*{raspberry-plantina etc -If newplantationa} of Rapperries are to be rormed, this wort hould also be undertaken without delay, trenching the land 3 spite deep if it be good, bat not hringing the subuoul to the aufface, rather incorporaring with it plentr of whort, rich manare, and leaving it where it is. Sisf soile should ba afforded a heavy dressing of coal-ashea or and. Although an open aite is the beat for the Rupberry, yet partial hade will not hart them greatly; but care mast be taken that the noll is not impoverished by the roots of neighboaring tree. Of varietiep, Saperlative is fine and diatinct, deserving of extenaive planting; Baumforth's Suedling, Fattolf, and Fillbanket, are likewise excellent; and the yellow-fruited varieties should not bo forgoten, athey are nice for dessert.

FRUITB UNDGR GLAEB.

\section*{By Bicalabd Pareer, Gardener, Goodwood. Chichester.}

VINE8. - The Vinee in the earliest house, that i the one the forcing of which will begin in November, ehould bave by this time lost the most of their leaves and may therefore be praned. After the pruaing, the cleaning of the rods should be undertaken, uaing for the purpore bot-water and a amall quantity of soft-mop. Heving done this, which involves the looening of the Vines from the trellis, it will ba an easy matter to clean the woodwork and wally, the latter being afterward washed down with limewash, into which a wineglanful of petroleum to each gallon may be put. The crust of the borders should be remored to the depth of an inch or two, and if the aoll appars to lack water, a heavy watering thould be afforded \(b \rightarrow f o r e\) any new soil il added in the place of that taken away. A, nurface-dressing for Vines, I am now collecting the edging from the carriagedrives, which contain a good amount of harp grit, and to this ame manure is added, the whole being mixed with fresh-cre turf, old mortar or plaster, and woodanhes, and the masa turned over several times. These materiale must not be allowed to get wet before using them. The quantity prepared may be suffisiant for all the Vine-bordera. In aff rding crushed bones to the soil of Vine-borders, I fiad it better to aprinkle them on the border as the work proceeds. After the Vines and vinery are cleansed and the border top-dressed, the vinery shoald be left open up to the time of beginning to force, any froste that may occur doing good ratber than harm if they do not freezs the water in the heating apparatas.
becond - EARLY VInERY. - In thir house the Vines will require abuadance of air day and night, bat beyond ehortening the longest shoots, no pruning should be done and no leaves remnved forcibly, for to long as the leaves remain on the Vine the bude are being nupplied with material for future use. The foliage of these Vines should be well syriaged at least once a day. Do not place any description of plante in the house, fire-heat
being uaqally required at this season to protect these from injary by frost. Whare a few baches remain on the Vines, recuive turm, each with a long piece of the hout attached, and place in buttles of water, and atore in a dark, cool, dry room. The Vine will be greasly benefited it the roof-jight can be taken off the vinery, thus affording fall exposare.

MUBCAT8-Maintain a warm, dryish atmospiere to cumplete the ripening, for anless this be done these varieties do not keep atisafactorily. It is ad viable to have a regalar, gentle warmth in the pine at this season, no as to keep a temperature of abou \(60^{\circ}\) Ventilation should be carefully afforded, avoiding cold draught which cause rasting of the berries. If the bordar neede water, it should be afforded on bright morninge, and at a temperatare several degrees higher than that of the house. The bunch should be carefully looked over once a week, and decaying berrie deftly cut out of them, Any lateformed laterals may be pinched off, and the foliage \(t 0\) regalated that the man may bine on the banches.

\section*{THE KITOHEN GARDEN}

\section*{By Johm lambert, Gardener, Powis Caith, Welshpool.}

8EAKALE. - The present will be a uitable time in oone gardens to pat the first batch of roote into heat, choosing those that are the best matured; in fact, I think it is a good plan in all gardens where this unefal vegetable is mach in demand, to plant a mall bed of it in a warm, anny aspect, which, if left two yeara before taking it up to force it, will prodace boots earlier than othera in the epring. and consequantly, the crowns ripen betimes in the autumn. Chonse the white variety for the earliest forcing, as the firat very early basches of this vegetable are never quite so nicely blanched as later ones. I have tried Seakale forcing in many different way, and found that tbat a mild hot-bed made of atablemanare and leaver is the bast for the production of criap, tender Seakale. Mubbrom hounes and cellara are convenient placas for forcing the roots throaghout the winter, qesites being accessible in the worst of weather. The large and small thong of the Pearl-white vari ty should be aved for propagating purposes if stock be short, laying them in damp soil till they can be made some timo during the winter.

VEGETABLE MARROW -If it be not intended to cover the plants ap, and thes are yet fresh and in a growing atate, cut the fruits directly they are large enough for conamption. But these plant are worth the protection of cold frames so long as the day temperature is mild

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\section*{By Bailer Wadds. Gardener, Birdsall Gardens, Fork.}

8pring flowerina plants.-If the planting o! the buda has been delajed by rainy weather, and a change to dry weather abould have taken place, the following plante, mostly emoloyed for edgings, ahould be put out:-Cerastiam, Ajaga, Arabis of variatiea Daisies, and Pansien, withoat delay, thus affording the plants a chance of getting established before the winter. \(O\) iher plante used for farnithing the bodu, viz., Wallfowers, including always B-dfont Yellow, which is one of the beat; Aariculas, Primrosen, and Primrove Polganthues Alybumb: Honenty, Sadodaria ocymoides, Silenes, Limpanthep, Erysimum Peroffskianam, and Myosotis hould be planted,
hardy annuals.-Sred of raitable pecie: may be sown in sandy losm and leaf-mould in amall pots, and placed in a cold frame or pit, and afforded air freely as soon as the seedlinge are above groand. They need protection from eevere froate, sud will bs found vary ueeful for filling up or making beds in the spring gardens. It will be very necesamry to thin out the seedlings. from time to time till there are not more than three to five left in each pot, and to keep the pots pretty clone to the glase to avoid opindling. As theso plants should not make much growth in the winter season, only enough water should bp aff orded as will keep the oil maderately moist. Clarkia elogane var, integrifora, C. palchella, and Eacharidiam concinnum make the moti charmiag of early sammer beds, raised and treated in the above manner, butaffording them a shift into \(48^{\prime}\), or 32 's early in the epring, and bedding them out in April. These plante lat much longer in flower, and do not become no wedylooking as those sown in the epring in the open ground, which flower during the hotter summer monthe.

GARDEN BHRUBBERIE8. - With the fall of the leaf the re-arrangement and tranaplanting of decidaone trees and sarabs may be andercaken, and it performance carried out in mild weather during the winter month, remembering, however, that deciduus plante recover the soonent from rootdiaturbanca the earlier in the autumn the work it done. Alwayn wait till the oil is somewhat friable and dry, or it will not run freely in amonget the roots, and the trampling of wet coils is alwaya injuriona to them, and ought to be avoided. In vils that are light, and those which readily get dry, the planting ahould be done a little deeper than in those which are retentive. If the plants removed are tall or top-heavy, staking them should be done as soon as the plants are in porition, alway using a soft wad between the bark of the stem and the atake. Large sabject are best fixed by ties of 8 inches long, fixed to three stout taken, as this prevente wind-waving, but allow of the settlement of the soil and the shrub, \&c. As a tying material of a provinional nature, etraw band answer adomirably, and later, for permanent ties, Caba bist, Willow shoots, and soft tarred string are the b-at. In removing large trees, \&c., it is beat to take out a deepiah treach at 2 to 3 feet distant from the aide, and then excavate one side of the ball, and cat through any exiating tap roote; the treacb should then ba flled in and the plant left for one year at the leate, in which period of tima new root will form at the cut sides of the ball. New beds and abrabbery bordera ahould be trenched 2 feet deep, and the sab-soil if wet left in position, but broken ap well. If the home nursery can farnishe the trees and ahrubs, and these are prepared by frequent tranaplantation, the deciduous and evergreen specien may be more satisfactorily plated at one and the ame time; otherwise large evergreen ahould be tramplanted in late pring. Good immediate effect are obtained by planting at from 4 to 5 feet apart. D jing this will involve the tran plantasion of many of the plants in three or four years, when the thinoinge will be found in excellent condition for planting elsewhere. Tiees and shraba areoften placed on turf by the aides of road. and in such case they should be stelected half-speci\(\mathrm{m} \rightarrow \mathrm{a}\), well prepared oy digging roand a year or two
before. Usally it is best to plant them at a before. Usally it is best to plant them at a sufficient diatance apart, that each may show its true character when of large aizo. In the planting of shrabberiez intended to afford warmth and shelter, deciduous flowering plants should bs but eparingly usad, and common and Portugal Laurela, Hollies, \(\mathrm{B}, \mathrm{x}\), Capressu, \& ... more largely employed. The Soa Backihornsand the red-twigged Dogwood, double and single-flowering Deniziat and Ribes, should be planted freely, their various coloured shoot when denaded of their foliage affording pleasing colourf. Lilace should be planted thialy, as the plants soon overshadow dwarfer growers, and the roote rapidly impoverish the eoil. They are more effective when planted in clumps by themselves. The proning and thioning of the ahoots of deciduous ahrubs which fl, wer on the young wood may now be commenced, the cleaning and dug ag of the border following thereon. Species which flower upon purs and the ripened thoote, should be praned when they have cessed to flower. Ouly the thinningout of shoote may be done now.

Shu-Lana Root.-The Kew Bulletin for September includes an interesting account by Dr Augustine Henry of the Sha Lang root (Dioscores rhipogonoidps) of Cbina. The specipa, we learn was first diacovered in Hong. Kong by Mr. Ford, and is known to occur plentifully in the moantain of Formosa, whence, brought down to the coast, it is used by fishermen for dyeing and tanning their netp. In China aleo it is extentively used as a dye, being enown as for dyeing coarse or "dyetive cotton," cloth, fiohiog nets, grass-cloth, and certain kind of silk, Dr. Heary further remark that:-"Tne latelypened Castoms tation on the K wangai-Annam frontiar, Langchow, is at presant the sest of the for tha jears 1889 and 1891 also allude to Dioscorea: -"The princepal article imported into Langehow in 1899 was Sur-lang . .. (over 200 tona, value £1100) It is a tuberous root, growing wild in the hilly diatricts of Tonkin. It is now to a certain extent caltivated, bat cultivation, atrange to say, deteriorates the quality. It is qually gathered in spring and early summer, and is sent from here down the west river to Canton, where it is used to dye cloth that peculiar reddish-black colour one so otten nees in the South."

\section*{EDITORIAL NOTICES.}

\section*{Advertisements should be ment to the PUBLISBER.}

Sowspapers.-C'orrespondents sending newspapers should be carefil to mark the paragraphs they wish the Editor to see.
llustratlons.-The Editor will thankfully receive and select pholographs or dravings, suitable for reprodiuction in these pages, of gardiens, or of remarkable plants, Nowers, trees, ic.; but he cannot be responsible for loss or injury.
Local News.-Corresponients will greatly oblige by sending to the Editor carly intelligence of local coents likely to be of interest to our readers, or of any matters which il is desinable to bring under the notice of horticulturists.
appointments for the ensuing week.


With the fall of Antananarivo
Madamascar. the French are complete master of Madagascar, a result generally admitted, even by the enterprising traders of other nationalities, that should not only be advantageous to the islanders themselves, but also to the world at large. Wisely administered, there should be a great future for Madagascar in the development and utilisation of its natural resouroes, and, primarily, of its enormous vegetable wealth, which, under native government, has been sadly wasted. If early and persistentlycontinued exploration and investigation count for anything, then assuredly the French have n better claim to domination in the island than any other nation. After the abandonment of the island by the Portuguese, the Frenoh attempted colonisation, the first attempt dating as far back as 1612. De Flacourt (Flacourtia), one of the earliest governors, writing in 1658, declares that Madagascar est un pays qui possède tout ce qui est nécessaire à la vie ct pourrait se passer de tous les autres.

\section*{Dcpetix Thounbs, and Commerson are} well-known names to botanists among the Frenoh explorers. The latter made large col lections, but pablished nothing; whilst the former desoribed and figured many of the curious and pecaliar plants of the island, including a volume devoted to the Orchids of Madagasoar, Mauritius, and Boarbon. This contains figures of upwarda of 100 species among them seversl of the finent Angroeoums

There were also issued, with this, six coloured folio plates, two of them representing Angracum seaquipedale. The same author made known the singular Ouvirandra, and the familiar Stephanotis. Adanson had previously described the celebrated Ravenala, and Sonnerat figured it in the narrative of his voyages to the East, early in the last quarter of the last century.

The British also had not been idle in relation to Madagasoar. Richard Boothby, a London merchant, visited the island about 1644, and wrote a glowing account of its productions. In consequence, an attempt was made to establish a factory at St. Augustine's, bat after a two-years' struggle against the natives and climate, it was abandoned.

In 1815, the English Governor of Mauritius formed a settlement at Port Luquez, in the extremenorth-east; and thisalso proved disastrous. But shortly after that date the first English missionaries established themselves in Madagascar, and from that time down to the present they have continued their labours under many vioissitudes, with varying success, and not without interruptions. They have not confined themselves to the conversion of the natives to (Christianity: they have laboured at their general education, practioal and mental ; and they have done, among other things, muoh towards making known the flora of the country, both by sending home living plants and seeds, and dried specimens. Indeed, it is almost entirely through missionaries that we in England have obtained our knowledge of Madagascar, its people and productions. Foremost comes the Rev. W. Ellis, the author of Polynesian Researches, a History of Madagascar, and other books. It was he who first brought to England living plants of Ouvirandra fenestralis (Bot. Mag., t. 4894), and sabsequently introduced O. Berneriana (Bot. Mag. t. 5076 ). Horticulture is also indebted to him for Angrecum sesquipedale (Gard. Chron., p. 253, April 11, 1857, when the original account of the plant found place in our columns), which first flowered in his own garden at Hoddesden, Herts * ; Grammatophyllam Ellisii (Bot. Mag., t, 5179), and several other remarkable plants. Many other members of the pioneers of Christianity in Madagasoar deserve mention for their exertions in the cause of science, but space will not permit. Yet there is one who has consolidated \(\dagger\) the results of his predecessors and contemporaries in the same field whom we cannot pass over. His work is specially valuable for the local information it contains, and as a summary of Mr. J. G. BAKRE's numerous papers on the collections made ohiefly by English missionaries within the last twelve or fifteen years. He roughly estimates that 50,000 square miles, or about oneeighth of the country, is clad with forest. But he goes on to Bay, that every year thousands of acres of trees are burned, to provide ashes as manure for a mere handful or two of Beans, and a few cobs, or a little Rice to be grown in the clearing. Moreover, young trees are extensively used to form stockades around the villages. In one village alone he counted 10,000 trees used in this way; and in another place no fewer than 25,000 tree had been sacrificed to make a road to remove a tombstone from the quarry! During the last twelve years the French have been equally active in collecting, and the collections have been worked out principally by the late Dr. H. Baillon. The pablications include a

\footnotetext{
- See Gar ienars Chronicle, 1867, p. 253, with a figure; and Botanical Magazine, t. 5113.
"The Flors of Madagascar," Journal of the Linnean
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series of upwards of 300 magnificent quarto plates, representing as many peculiar plants of the island. It is estimated * that about 5000 species of Madagasoan flowering plants are represented in the herbaria of Earope, and that they belong to about 1000 genera and 144 natural orders. Contrary to the expectations of some naturalists, the flora is very similar to that of tropical Africa, having many elements in common, and exhibitiog no greater peano liarities than distant parts of the Continent Readers of this journal may be referred to several articles on Madagasoar published inttw columns in 1874 and 1875, from the pen of Captain Oliver, an authority on the geography and products of this island. The illustration now given, figs. 80 and 82 , are from his penoil,

The fourth part of the monnIndex Kewensis. mental production known as the Kew Index has just been issued, and with it the work is terminated. Wo may remind our readers that it is a list of all the properly-authenticated names of flowering plants published since the time of Linneess to the year 1885. It has been compiled by Mr. B. Daydon Jackson, under the direction of Sir Joseph Hooker, and at the expense of the late Charles Darwin. Daily use has shown us how extremely serviceable the book is to workers, and it has also proved with what care the laborious undertaking has been carried out.
The expert botanist will readily appreoiate the nature of the book; but it may be desirable to remind those who only make casual reference to it, that it is no more than it pretends to be-an index of names and references. The preoise value and signifioance of each partioular reference must necessarily be left to the stadent to determine. All that we can expeot is consistenoy and correctness of entry and of reference, and thene the unwearied patience of Mr. Jackson and the supervision of Sir Joseph Hooker have secured. Under the oircumstances just mentioned, sny elaborate explanation is perhaps not needed. Nevertheless, we had hoped that some explantion of the prinoiples upon which the list haw been compiled would have been afforded us. We should have liked to know, for instance, why one name is inserted and another rejeoted; fur these particulars we mast now look to som \({ }^{3}\) article of Mr. Jackson's in the Journal of Botany and elsewhere. Many garden names given without adequate descriptions or figures, and liable to change in the hinds of oommercial speculators, and those which are ephemeral, or speedily rendered nugatory by the death and extinotion of the plants-are, of course, not inserted. For garden parposes, howevet, some of these names would occasionally be useful as historioal evidence, and it would be a boonto have them pablished in some form. Of much greater importance, however, is the necessity for supplementary volumes, bringing the list of anthentioated names up to date, and these we shall hope to see in due time. Some means should also be taken to testify the gratitude of workers towards the compilers of this work and thas fitly commemorate its conclusion.

Brunsvigia Jobephinfe-This plant is one of the ornate large-growing South African balbs, ald very striking, with its masive paendo-bulbs corer with nameroum ailky tanics, and bearing aeason of vegetation broad, lorate, glauconfg the plat
leaves. The only thing to be asaid against leaves. The only thing to be aaid against the play
"W. B. Hemsley, in Science Progress, iiin, ppo 47740
an cultivated in gardens in that it has not generally flowered freely. But in the hand of those who study the requiremente of the species of Amaryllid. which are natives of hot, andy plains, a reasonable amount of access is attained, and especially in very warm, dry summerm. The plant maken a noble show, with its tall, stout scapes crowned with bright red flowers. The chief points to be observed in the culture of Branevigias is to withhold water early in the seaton, and when the leaves begin to
one for Brunsvigia, for we have seen the apecies under notice in flower at Kew and eoveral other places. One of the bent examples wat that exhibited by Mr. R. B Lowe, gardener to Earl Brownlow, Aehbridgy l'drk at the Royal Horticultaral Sjcietp on Augats 13 thi year, and which was mach admired, and from which our illustration (fig. 81) wat taken (eee Gar deners' Chroniols, August 17, p. 191). It is a very old inhabitant of gardens, and it is recorded that the first bulb to flower wak purchated by the
satisfactory sale resulted. The principal thinge in demand seemed to be some plendid plante catalogned at Cattleya species, but which were evidently of the C. Warscewiczii bype, than which no handsomer plant could be denired. Good healthy apecimon of the many, fine, named forms of Lelia parpurata which emanate from the Brusele firm, and equally good plants of their noted Lalio-Cathleyas of the L..C. \(\times\) elegana clast were also offered; and the fine Sjbralia Lindeni which we noted in a recent issue, and the ningular and pretty Zggopetalum Jorisianum found favour with the purchasers, if we may judge by the good prices at which they were knocked down. If Mesart. Linden continue to offer none bat really first-clans plante an on thir occasion, the succese of the venture thould be asmired.

Newgabtle and District horticultural Mutual Improvement Society.-The monthly meeting of this Society wat held at 25 , Werdgate Road, on Taenday, Ostober 8, Mr. Joun Bullock taking the chair. Mr. Lawson, Heathdale, Gosforth, exhibited a collection of twenty-two varietien of exotic Ferne, in admirable condition; and Mr. W. Laree, Northdene, Gateshead, showed blooms of Caryanthemums. An excellent paper on the caltivation of fancy Pelargoniums was read by the chairman, in which he recommended cutting atruck in the apring for making the atrongeat and healthient plants. An interestiog discussion followed, in which many took part.

Market Reporta.-It is no exceedingly rare to receive a letter like the nahj sined, and so exceedingly common to receive other of exactly opposite tenor, that we have great pleasure in publishing it:"Will you pardon me arying your Covent Garden prices are a long way from accurate. Last week I n te Peaches, \(6 s\). to \(8 s\). a dozen, and I may may-the very ame day I realised 15 s . at Munbo's, Covent Garded. R. Gilbert, Barghley Gardens, October 9.' We muat repeat that the price quoted are not exceptional onet, but averages for the week.

Complimentary Dinner and Phebenta tion.-On the occasion of Mr. Cliffe leaving Shoreham Place to take charge of Lord Egerton's gardens, Tatton Park, Cheshire, a few friends entertained him at dinner at the George Ian, Shoreham, on the evening of Friday, Ostober 4. Mr. Cliffe was afterwards presented with a handsome marble clock with inscription, at a mark of esteem.

The Arnold Arboretum.-By an arrangement recently concluded between the President and Fellows of Harvard College and the city of Bonton, important addition have been made, way Garden and Forest, to the Arnold Arboretum. Thene inclade two parcels of land with an area of about 20 acree within the boundaries of the original Arboretum, but reserved by the city for its own usen when it was eatablished; two piecen of land with an area of about 3 acrea on the north-west border of the Arboretum, and purchased by the city last year; a piece of land, the property of Harvard College, south-west of the old Arboretam, with an ares of \(67 \frac{8}{10}\) acres ; this consists of \(\&\) high, rolling, grasiy hill, the second highest land in the city of Boston. From the summit of this hill fine views are obtained; the wooded portions of the Arboretum lie at itw base; to the mouth all the Blue Hill range il in view; the waters of Masachusette Bay are seen to the mouth-eatt, and to the north and west a broken well-wooded country. With these additions the ares of the Arboretam is \(222 \frac{5}{10}\) acres; 2 f mile of drive have been finiahed and planted, and under the new arrangement the city of Bution is to conatruct \(1_{18} \frac{3}{6}\) mile of additional roads. Among the scientific garden in the Uaited Siates and Earope, only the Royal Garden at Kew, with an area of 251 acres, exceed the Arnold Arboretam in aize, and it is probably asfe to asy that no other acientific garden of auch an ares is accemible to the people of a great city or possesses such a divernified auface and nuch advantagen in the way of natural wood. The Arboretum lien entirely
wither, to place the bulbs in a eunny aituation, either in full sunshine out-of-doors or in a frame or greenhouse, to be thoroughly dried and kept in a dry atate till the flower-apiken appear, which will take place in advance of the leaves if the plant is going to flower. But if the leaves appear and get well advanced, and no flower-spike appears, it is reasonable to conclude that the bulb will not flower that seamon; and the plant should be liberally watered and grown-on until the leaven again wither, when, if kept dry, as before-mentioned, it will, in all probability, reward the cultivator with itn gorgeous display of bloom. The present seaton neems to hare been a favourable

Fomprens Jonaphisis in Holland, and on ita flowering in the garden of Malmaison, it was named in honour of her.

Linden's Orchid Sale at Stevens' Rooms. -On Thuraday, October 17, Meaare. Linden, L'Horticulture Internationale, Parc Leopold, Brussels, commenced the series of O-chid Sales announced to be held at Mr. J. C. Stevens' Roomy, 38, King Sireet, Corent Gardev, and certainly the eplendid quality of the plants eent was worthy of the occation. There was a fair attendance in the Rooms, and with the aid of the numerout commianion held by the auctioneer a fairly
within the limits of the city of Boston, and is not more than 4 mile from the oentre of popalation, being eavily reached by one line of railroad and by two lines of electric cars, while the parkway which pnites the difforent parks of the City Park Syatem, atarting from the Pablic Garden, in Arlington Sireet, in the heart of the residential quarter of the city, skirting the town of Brookline and enclosing Jamaica Pond, forms its eastern boundary and connects it with Franklin Park beyond. By this parkway the diatance from the Common to the Arboretam is 6 miles.
the effects of the frost and Drought on Baitigh Medicinal Plantb.-Theintenae and lengthened frost of last winter, followed by the extreme drought of the early anmmer, are showing as the months roll round, that the devartation has not been confined to garden cropt. Oae branch of British culture, about which little is perhaps generally known, is the growth of medicinal planta, which are now for the most part caltivated at Hitchin, Bodicote, Mitcham, and in Lincolnshire. A most intereating report on the atate of these crops was recently given in our contemporary, the Chemist and Druggist, from which we gather the following facta. From Hitchin, Messrg. Ransom \& Son reported that Lavender will be the shortest crop that has been gathered for many years. A temperatare of \(0^{\circ}\) Fahro which occarred as Hitchin and many other parts of the coantry, proved fatal to the gr-ater number of the older plants, and whole fields which last year appeared promising have been cleared and planted with other crops. The young plante, though in fairly good condition, are entimated to produce but very little flower thic year. Pappermint anffered neverely from the dry weather, the plants being short, and the yield of oil par acre being therefore considerably bslow the average. Ruemary, which is deacribed as the most delicate of the cuitivated Labiatre, was almost entirely deatroyed by the frost. Bslladonna promised well in the early part of the season, and a large crop was anticipated; the droaght, however, diminiatied the growth, and the prospecte of a good orop accordingly. The old plants of \(E\) aterium are said to be nearly all killed by the severity of the winter, bat young plants were abandant, and the field of fruit, althoagh late, was anticipated to be fairly good. Henbane was reported to vary much in different localities; in demp, low-Ifing situations about Hitchin there have been heavy cropt, bat in dry situncions the yield has been very deficient. At Budicote, near Banbary, it is anid that the winter killed at leact two-thirds of the areond biennial Henbane, and as mach of the Belladonns; the only bright picture of the medicinal planta in that locality is atated to be Raubarb, which has done remarksbly well. From the Mitcham diatrict the report stater that it would be necessary to go back more than ten years to find a season so diasatrons to the cultivation of Miat, Lavender, and \(R\) semary; the runners of the Peppermint plante were frozen, and the succeding drought completed their dentruction. Of Lavender, twentyfive per cent. of tho joung plantationa were killed by the front, and the remainiag thres-quartera having aleo suffered, only half the usual harrest was expected. Canmomiles seem to have atood the winter, and on the termination of the cold weather the plants asmued a healthy appearance, and a good crop wat almost certain.

Grabses of Tennebsee. - The Agricaltaral Wxperiment Station of the Uaivernity of Tennessee, has pablished s Bulletin containing fall deacriptions and illuatrations of all the grasses of that Scate. An none of the species is pecaliar to the 8cate, this handy manual, prepared by Mr. F. Lamson-8çibnem, Will be of greet serviee to botaniete and agricalcurista throaghout the North-eatern Scates gonerally. Mr. Uaited States Dspartment "Agrotologite" to the Uaited Statee \(D_{\text {spartment of Agriculture at at }}\) Washsdranced to have suoh offlears in we are sufficiently sdranced to have swoh offlears in our Agricultural
Department.

Fauit Pregeavation in Tranait.-We take the following from the Yorkshire Daily Post of October 3, 1895:-Th latost +x periment in fruit preserving in decidedly novel. Sir Sade Samole the Arent. Gsaeral for Naw \(S\) ath Wales, has just received at his London office a parcel of fruit despatched from Sydney at the end of Jaly, which has been preserved in tranait not in an ice chamber, bat by an innocuons coating which excludes the air and arresta decay. The exact nature of the preparation is not disclosed, bat it would appear to be nomething of the natare of collodion, and Oranges, Lemons, and Pine-apples, by being simply dipped in it, are coated with the preservative, which easily peels off, and is said to caune no deterioration in the quality of the fruit. Of course, only hard fruit can be thas treated, and at present the method is in the experimental atage, bat ite development will be watched with interest, in view of the large trade which has aprung ap with New South Wales and Australia generally in fruit for winter and spring consamption in England.

Imported Plants at Santa Barbara, We have received from Di. F. Francescit hir brochure, entitled Santa Barbara Exotic Flora: a Handbook of Plants from Foreign Countries grown at Santa Barbara, California. This descriptive catalogue of plants speake well for the climate of their new country, as native of such diverse climes there do well and flourish. Dae tribate shoald also be paid to the enterprise of the planters, who, for variona atilitarian parposes, have succeeded in acclimatising no many valuable species ; and also to Dr. Franceschi, whose careful Handbook should eerve both now and in the fatare to prove what hae been done, and what may yet be accomplished in this direction.
"Hortus Fluminenais."-Siñor J. Bakbo-a Rodriauss bas published, under the above title, a brief account of the Botanic Garden of Rio de Janeiro, compiled to serve the requirement of visitors. It is written in the Portacuese langage, and contains a brief history of the garden. The existing eatablishment dates from 1808. A dercriptive list of the principal species caltivated, arranged under the natural ordera up to Compositro, is given, and some photographic illustrations, serving to show the beanty of this renowned garden. The famous Palm avenue was planted in 1843.

Roses.-The pablication of an eighth edition of Mr. William Paul's book on Roses and Rose Culture is in itself proof of the atility of the work. We can therefore heartily commend it to such of our Roseloving readers who do not already avail themelves of tha instractions contained in it. The pablabers are Simpitin, Marshall, Hamlion, Kent, \& Co.

Paebentation,-On Saturday afternood, Oet. 5 , a depatation of the Chipponham Horticalearal Society waited on the president, John Gladstone, Esq., at Bowden Park, and presented him with a Silver Medal in commemoration of the nilver anniveraary of the nociety. The medal, which was richly emboned and inseribed, was presented by Mr. A. Wriatr, the secretary, and anitably acknowledged by the recipient.

Missine Links. - Commenting at the late meeting of the British Association at Ipssich, on the botanical work of the late Professor Williamson, of Manchester, Df. Scott showed that the Calamarix were allied to Equisetacex but possessing a cambium as in exiating Dicotyledons and Gigmoaperms. The Sphenophyllew have no living repreentasives; the Lycopodiactso were represented by Sigillarias and Lepidodendron, which, however, ponsensed cambium. The Lyginodendrese consist of plante with the foliage of Fercs, bat, according to the report in Natkre, with atems and rootu resembling thove of Cycado. In this connection the existing Stangeria is of interest.

Panalum edule.-The poisonons principle of thin plant has been abown to be hydrocyanic acid. \(\mathrm{Dr}_{\mathrm{o}}\) Tamus, the Director of the Botanic Gardens at

Baitanzorg, is of opinion that hydrocyanic acid is one of the first subatances in the manufacture of proteids, and the first viaible reacult of the aborption of inorganic nitrogen.

Cambridge Univerbity.-We learn thas the library and herbariacu of the late Profesior Babingo ton have been bequeathed to the Uaiversity. Tap fiae collection of shells made by the late Min Sar has also been left to the Univereity.

Gynerium jubatum.-Mr. W. E. Goublator obligingly sende us a spike of this apecies, which in its airy lightness, and the silvery lautre of ith florets, exceeds in beauty the ordinary form \(W_{r}\), Gumbleton telle us that it is lene hardy than bo other specien. Gyneriam jabatum is a mitino d Ecuador, and was firat noticed in the Reve Hortion, 1878, p. 449.
"Cider."-This is the title of a new illatrated monthly journal devoted to the interents of cider and perry, and is the official organ of the National Association of Cider Makers. Director and editor, E. SAm:on; pablishing office, 15 , Lincoln's lun Fielca. The anbject-matter of this magaino is explained by the citle, and will prove of interest is growers, vendors, and eellers of Apples, as well us to those immediateiy connected with the manafacturo of cider. Tae price of the magazine is aizpence, and it is composed of two duz?n clearly-printed paget, interspersed here and there with an illautration.
"The Case against Butcher's Meat."- pamphlet has been sent us which bears this name, and is written by Mr. Charles W. Formapo (London: The Inarance Paolication Dapồ B, Dorset Street; Ideal Publishing Union, Memoriul Hall ; and Mancheater: Vegetarian Society, 9, Petur Street). This amall book warmily advocater a nono fleah diet, and in it the anthor argues out to his onn atisfaction many reasona, baved on consideration of health, bumanity, and morality, why a dist of butcher's meat is wrong for mankind.

Mead and Honey.-Mead, and Hono to Naho It, and Honey and its Uses, are the titles of two mull pamphleta by the \(R \rightarrow\). Gerard N. Bancers, pablinhed by Perry \& Son, Daruford and Ladgate Hill. The author recommende mead, when properly made, to the consideration of all connoissears, and he quotea the opinion of former generations as confirming hir own. Stueral recipes for preparing mead carefully and astisfactorily are given. Tue leaflet on howey speake highly of its dietetic and other virtoeth advises the ase of it warmly, and aloo gives reesipla for various diehes, which include this dninty, Tbo anthor writes clearly, and to the point,
fiae at an Eoinburgh nurgery. - A int took place last Tharsday at the nursery of Mentin R B. Laird \& Sons, Pinkhill, Murragfield. Two fire was confined entirely to the office, and Menir Latrd are afraid nome of their sutama ordert barm been deatroged, and would feel obliged by their friends who may read this paragraph kindly repeative any orders they may have givan for autuma or prith delivery.

Lemons.-A writer in a morning contenpority this week makes mention of a fine consigument of Lemona jast arrived from Auatralia, and grown os the eatate of the Aastralian Irrigation Compary, remarking that this afforded an indication of what our Auncralian friends could do in filling ap what woald otherwise be a Lemonless period. It wo happens, however, that there are just now nome refl good amples of Neapolitan and Paleroitan Lemons on the Liondon market at a fairly moderate price, 0 ar Italian friends bave been alow to move, but me fancy they are pretty well alive to the adrantere aecraing to being firat on the market, either if Manchenter or London.

The Lutovia Cheray.-Among the new id Hittle-known Cherrien received at this atation in recent years, the Latorka is one of the most pro mising of the late sour varietien. It wes imported
from Earope about twelve jeare ago by Prof. Bodd of Amep, In, who says that it is mach growa in Poland and in S.leais, as a road-sida cree. It wat firat planted at the atation in 1883. So far as observed, it is not catalogued by any nurseryman, alchoogh it is grown to some extent in weaters narveries. It appears to be worthy of extended trial as a late sour Cherry. Detcription-tree of Morello type, a vigorous krower, young branches rather alender; fruit firm, good quality, aprightly acid, at large as Eaglish Morello or largor, more nearly roand, very aimilar to that variety ia colour, but the flesh it not wo dart as that of Englieh Mirelio; clinge tenacioualy to the long etem. So far as tested hare the tree hat proved to be very prodactive, ripening its frait an late as, or later, than the Eaglian Morello. No. Y. Agrioultural Experiment Station, Geneva, N. I.

Rare Trees of West Prussia - Hert Connentz, in the Al,handlungen zur Landeskunde der Procin: West Preussen, hett. ix, 1895, paolishes an asc saut witn rigures of certain rare trees, ioclading Piras torminalis and P. suecica, the diastribution of Which through neighboariag countries is givan, Uader the head of Picus excelea (Spruce), an account is given of various curioue forme of this species, such as the Weeprog Spruce, the Columar Sp -use, and of one very curious form in which the upper branches are deflexed and appressed to the stem, whilse the lower onea are spreadiog.

Diastaje in Foliage Leaveb.-Profensor J. Reynolds Grbex, in a paper read betore the Britioh Ansociation, gave an account of a series of experiment he has been condacting on the diurnal varia. tion in the amount of diastare in foliage leaves. From this it appears that there is more diazease present in a plant in the morning than in the evening, and \(t\) ) account for this fact it has been atated that the diastase is atilised for the conversioa of atarch, but this theory is opposed to the view that ensymes do not diminish in qusotity. The author's experimente were carried out on diastase in solation and on actual leaves. In the first inatance it was noticed that on ex anure to the electric arc light or sunlight, Ti5 per cent. of the diastase was destroged. Leaves of one of the Laguminote were employed for the latter experiment. They were gashered in the moraing, end kept in the dark antil ased, when ba'f of the blade was shaded, whllot an arc light was broaght to bear on them for nine houre. It was then found that 10 per cent. of the diastane was destroged, which proportion wav increased to 20 per cent, if exposed to annlight. It will therefore be neen that the amoant deatroyed is greater in the solutions than in the living leat, and this is accoanted for by the fact that the proteids in the cells haves protective action. Pharmaceutical Journa!.

Japanese Mattina.-The demand forJapanese mattiog, probsbly made from the culme of \(L\) spironia macronata, appears, from a recent report from Hirgo sad 0 saka, to beatill increasing. Tae progress made in the manafacture of this article is more and more noticeable aach year, the export for 1824 amounting to over 277000 rolls of 10 yards each, against 227000 in 1893. The chief demand comeg from Nem York, and the quatity carried to that port by sailing vessela alone anouatod to ovar 170000 rolls, being sa average of over 12003 rolla per vessel, Which thows what an imp retant fac:or ai regards freight this indautry has asonemed. Nfor desigas of matting are conatantly being invented by the Japaneap, while the workmen are very ready to executa orders based on patterns received from foreign conatries. so that tho numbar of atyle now available to the exp orter are alm nas uniimited. The crop of Ruab from which the marting is made was particularly good aad abandant during the year, and the resulc bes been that the trade proves capable of greas expanvion without any important change in prices, to the considerable advantagy of both the Japaness and foreigners engaged in it. To all appearaces, the demand for foor matting is likely to increase in the future.

Action of Sulphufetteo Hyorocen on Plants.-M. H. Babnjubin has carried oag nome experimanta which condirm those previonaly recorded by M. Morren. Sirawbarry placta in fall leaf were expored ia the one cuse to the action of ealpharetted hydrogen gat accomptaied with free expurare to the asmosphere, whilst ia the other the plans was covered with a bell jar duriag the experimeat. Ais result, it war noticed in the firet inetance that after the gas had been a lowed to diffice through the atmosphere for esearal day the leavea bicane covared with yellowith spots, and then withered and rotbed, bat the plant recovered its normal appanrance slowly if removed to a pare atmonphere. If, on the other hand, the gus acted on the plants in a conflaed apace, the effect was much more marked, as in twenty-four houra' time all the leaves annumed a browa coloar, and hortly afterward blackned, withered, and died off, and no subsequient remoral to frabh air was able to restore the plant. M. Barnoovin conclades, therefore, that tha action of sulpharetted bydrogen 01 plants is directiy enalogoas to its action on animule (Rép de Pharmzoie, vilo, 383) ex "Pharmzo ceutical Journal.,"

\section*{BOOK NOTICE. \\ Bioloay Notes.}

Under this title Mr. Hoaston has got together the monthly veries of notes on biological mattera, issued for the basafit of the atadenta receiving technical instraction ander the auspices of the Essex County Conacil. Syme of the stadents are dentined to become tsachers in the fatare, and we have before noted the very careful and thorough training they receive in botany, zoology, and the sciences, on which agricalture and horticulture depend. Illastrations of the methods of tuition adopted, whether for elempntary or more advanced papila, are given in the present volume, and will aervo as excellent examples to others denirous of carrying out a similar scheme. The main fentare in to make the pupil verify, nin far as posible, for himself everything the teacher tells him, and then to indace him to make farther research for himself. The laboratory at Chalmoford is not only a teaching centre, but it is, as we see from the volume before ur, becoming the source whence information on plantdiseases, weede, \&c., is dios minated among the caltivators of the coanty. Those of us, who, from knowledge of what bas been done for years in Belgium and Germany in this way, have earneatly advocated the adoption of vimilar methods here, mast feel gratification at the thorough way in which the sabject is being taken up by the Easex County Conacil and other amilar bodies. Instraction in technical details and manaal performance is of primary importance no doubt, and in many cases is all that can be done, or even simed at. It is evident, howerer, that unless an adequate knowledge of general priaciples be saperadded, there is no chance of making any real progrent, or of tarning out better practitioners than our forefathers were. The proceeding at the Sammer Sshool of Horticalture hava already been detailed in fall in our coloman, so that now we need only congratalate the Council on the jadgment, zeal, and energy diaplayed by their ataff lectarer.

\section*{Home Corbegpondenoe.}

BOUQAINVILLEA EANDEAIANA.-I have on three or four occanions during the past seator seen Mr. Jamen Cypher, of Caeltenham, show fine apecimen of this form, and when well-coloured is constitates a striliag contrast to B. glabrs. The bracts are of a dark tint of mauve-purple; and in the cose of Mr. Copher's specimen, bracte and foliage alike were smaller, thoagh it was a fae example of high cultare. But an an effective exbibition plant it did not appear to me to equal B. glabra. When the latter is vigoronaly grown, and the large lntrous mauve bracte are bright in colour as well as namerous, it is a superb exhibition plant, and the frat to eatch the eye in a collection. I am afraid some exhibitort
make the mistske of atarving the plant in order to get it into flower, with the realc that the foliage is malland she lower branchen bare of leaves. To see as one socuetimes doe a eptcimen of B. glabra, bare of learea at the bsee and back, though there may be a gnod deal of colour at the sop, is to cauce one to regret that the treatmeat meted out to the plate was not more generons. B. Sanderinna ia oo diatinct in character that it can be shown as Mr. Cypher had it at Taanton in Augusc last, in the clase for twelve varieties of atove and greenhouse plant in fiower, he having alco a fiae example of B. glabra; but if spocies were required it might raise the question at to whother B. Sanderiana is really a distinct species, alchough it is, I believe, claimed asach. \(B . D\).

FRUITING OF DOUBLE PEACH.-We would Ilkè to know if it is not unasaal for the double-Gowering Peach to prodace fruit of a good sies, and excellent fivoar, out-of-doors? Whis hes been our expe-
riencs, and aleo that of one of onr customera riencs, and aluo that of one of our customers, whose tree is about ten or eleven years old, our trees bsing young nursery tock. It may brve been the exceptional aran, but the experience ia new to us. Carter Page \(\$\) Co.

CHOU DE BURGHLEY. - I bave grown this variety of Cabbage, or Cabbage-Broccoli, as it is usaally calied, for a number of jeara, but have not, so far, been able to add the earmame "Broccoli" to it, failing to discovar the alightest trace of a miniature Broccoli enveloped in the leavea, as advercised. Whether the falt reats on my inability to give it the proper treatment, or that I an not aupplied with the genuine seed, I am at a lose to know. The outward appearance is very mmilar to the Sugarloaf Cabbage, but I find it d.ffers from any otber Cabbege in point of flavour when conked, being, to my easimation, quite equal to the Braceels Sprout. especially to the prouts that epring from the base of the atem after the head is removed. Anxion to obtain itt fall value, I have grown it to come in at different earson, to ancertain if any Broccoli heade would form, and have let it remain ancat antil very late in the epring-but all to no use. Perhapa Mr. Gilbert, the raiser, will kindly let me kDow what time of the year they ahould be planted, and how long a time they should grow before a head of true Cabbage-Broccoll forms. W. Jones, Aeton Bank, Hawarden.

VERBABCUM CHAIXI AND RUDBECKIA NEWMANI - Oa looking through the tourca and lat volume, just isaned, of Iadex Kewensis, I note one or two thinge of general intereat to amateur gardeners Firat, a plant very often m-ntioned in gardening joarasls, Verbancam Chaixi (Villara), is declared to have no separate existence, but to ba identical with our native V. nigrum. Also another very tall perennial, Mallein, about which gardener write comptimes an V. Coaixi, sometimes as \(V\). vernale (Wierzbick), ometime an V. Wierzbickii (Heaffer), has lost all thew three pecific names, and in merged in V. nigrum, of which \(E\). Boisuier alwaya declared it to ba hybrid. Tben we bave Rumbeckia Nawmani (Luadon), distioguished from R. peciosa (Wenderotn), thungh no name like \(N+w-\) mani is attsched to any apecies of Radbectis, even as a synonym, in Asa Gray's Elora of North Americt; and we must hence conclude that R. Newmani (Coudon) is unknown to American botaniets, and that one of these two species is anknown in Ejglish gardens, where the two names have hitherto bupn considered ynonymous. C. Wolley Dod, Edge
Hall, Mapas.

TAIALS AT CHIEWICK. - Your correnpondent, A. D." asy, at p .336 , "a recent wrangle over the
nomenclature of \(\mathrm{B}-\mathrm{m}\), wich a purponeleas result, nomenclatare of B an, wich a purposelens result, led to the alatement being mede on behalf of Chiltrial is tried. That such in the case," explains "A. D." "is due firat, to lack of space; and wecond, taking place that season. There is," he writes, "a general ameumption in the conatry that anyone may, unsolicited, and anything at any time to Cniswick to be grown for trial, quite oblivious of the fact that one thing grown does not constitute a trial, but that resl tonts of value are found only when the best representativew of any one prodact are grown along with new comers." Adding, "it was doabtlen under these coadition that the Bean, the unfortanate object of s sarp discunion recently, was, in 1885 pat on one ide at the time, and was, with many other things, probably relegated to the dasthesp after the seed had become sterile." I ahould like to know whother the above atatement has been made
with the conaent and by the anthority of the Royal Horticultaral Society, because if not, it would be unjuat to censure it for statement made by irreapon nible persons. However, I may be allowed to say that "A. D." assumes too much in writing of the "qeneral assumption" prevailing in the country, sc. "A. D." in his appport of the atatement "that everything sent to Chiswick for trial was not tried," for the reasons, he asserts, rightly or wrongly, (1) that there wal not space, and (2) to there being no trial of the particular product taking place that veason! The Royal Horticultaral Society may well exclaim, "ave as from our friend "A. D.'!" How could there possibly be a trial of the particalar product taking place that season? seeing that my mabing Canadian Wonder French Bian was the only "Climbing French Bean" heard of (except by visitors to Lungford Castle Gardens), or anbmitted to Chiswick for trial before the above-mentioned date (April 9 1885), or for aix years later, when Mensry. Satton's Tender-and-True made its appearance. This is the annibilation of reason No. 1, and the same fate awaits reason No. 2. As it is not by any means reasonable to appose for one moment that space would not or could not be found in our national trial-garden for a short row of a novelty, namely, a French Bean bearing the written reputation of attaining to (at the time) a hitherto unheard of height- 7 feet-and heavily laden from bottom to top of bine with Canadian Wonder-like Beans of the finest quality. I repeat, is it at all likely that a novelty of the description indicated would be refused trial in the trial-garden of the Royal Horticultaral Sociest on the shallow ground mentioned by "A. D.," or that the fact of it not having been afforded a rial at Chiswick Gardens could reasonably and ratiofactorily be accounted for by the explanation elicited by the Fruit Committee at Chinwick on Sept. 10, to the effect, "we do not alway try everything that is aent un for trial at Chiawick." An adminsion which, under the circumetancer, naturally provoked a pardonable expremion of opinion from the person responsible for the introduction of the Climbing French Bean-an opinion which was entirely retronpective in ita application, and, there fore, did not in any way apply to the pretent Frsit Committee or management of the Ryyal Horticultural Society's affair. However, one thing I ventare to think the Fruit Committee might have done on the occasion referred to, without in any way compromising itself or doing anything other than a juat act. namely, recorded the fact that that body was quite natisfied, judging by the official receipt of the Royal Horticultaral Society, that my Climbing Canadian Wonder French (now Veitch'h) Bean had been sent to the Royal Horticultural Society's gardens for trial at Chiswick aix years before Tender-and-True was heard of. This mucb, I renpectfully assert, was within ite legitimate province to do. In conclusion, I should advise "A. D." who is ventilating the Climbing French Bean abject in all the horticultural papers, to let the matter rest now. In fact, I fail to see in what way he should consider it incumbent on him to take such a prominent part as he has done during the latt twelve month in the fate of the two Beans in question, but always, be it observed, advocating the claim of one to the detriment of the other. H. W. Ward.

HELENIUM GRANDICEPHALUM STRIATUM. A yellow Composite, with etriped flowers, having started from Ware's nursery a few years ago, is now becoming common in gardens under this very objoctionable name. The plant is nothing more or lea than H. nudifloram of Nuttall. The atriped ray very globular head, brown-purple diec, and pointe receptacle distinguish it from all forms of \(H\) autumnale, to which it has been attributrd by nome All these are characters of H. nudiforum. Sye Ava Grall Mlora of North America. C. Wolley Dod, Edge

ROTATION OF CROPB-In answer to your cor eapondent, "D T. F.," at p. 399 of the insue of the Gardeners' Chronicle for Ostober 5, I admit the statement "that the Cabbage tribe will thrive upon and much too poor to grow a good crop of Oaiona or Carrota, requires come qualification. We have in thir neighbourhood a field which, within the lat teu Jears, has been let out in garden allotmente. This field had been nuder ordinary arable culture but had been sadly neglected, hence fouled with weeds of the very worat kinds, and exceedingly it wat ufterly imponsible to grow aeveral yoart Carrote or Onions upon the grow a crop of either gradaally being enriched and emeliorated the soil is
cultivation and manaring, these latter crope are now becoming more frequent. The Cabbage tribe throve capitally from the first commencement of the gardens. The explanation appeara to me to be, that the Cabbage tribe, while they andoubtedly prefer an enormonsly rich soil, jet from their deeply rooting habit and robuat character of growth, are able to draw upon the store of plant-food in the subsoi (the arface-food having become exhauted), and below the root-range of the more shallow rooting crop. Also this same power from deep.rooting gave to the Cabbage a command of the wate sapplies of the subsoil not available to urface rooting plants. Of course, the texture of the soil has mach to do with the succesaful growth of any crop. While Oaions and Carrots delight in a light free working oil containing a good apply of lime the Cabbage tribe seems to do bast on the atiffe clases of land, which on analysia show a large per centage of potash and phosphoric acid in the sabsoil These different descriptions of soil best afford to the roote of the difarent plants subatances which ente directly into their atructure, J. J. Willis, Harpenden

WARE's BEGONIAS.-Another roadaide garden, but anlike the suburban one described as p. 431, is that consitting of 3 acres of land ander taberousrooted Begonias in full bloom-a very valuable crop the property of Mr. T. S. Ware, of Hale Farm Narsery, Tottenham. This is a branch nursery, and adjoin the road at Crook Ludge, Bexley Heath, about a mile distant from the town of Woolwich, on the Dartford Road. The plants number about 200,000 and they were a blaze of colour when I asw them, double and single-flowered varietien, of fine form and glowing tint. The novelties are kept in pote in the glass-houses. Mr. Pope, the manager of this nureery, is a apecialist in Bogonias, and he rias moreover the raiser of the firat hybrid tuberous-rooted Bagonia of gardens, when employed at the Exeter nursery This crom was obtained from B. Veitchii \(\times \mathrm{B}_{1}\) Pearcei, and it has the brilliant flowern of B. Veitchil with the beartifal marbled leaven of B. Pearcei, This croas was named B. Woodmanii, in compliment to the late Dr. Wm. Robt. Woodman, who had jut aucceeded his uncle, the late Mr. R. T. Pince, in the proprietorship of the Exeter Narsery. W. Napper, Chebea

THE BEABON.-On Saturday last, the 12th inat. I was driven with some friend through the Epping Forest with a view to inspect the autumnal tints, but to my murprise the foliage of the treen was an green as in Jane or Jaly. Perhaps some of your readers will be good enough to etate whether auch an abnormal atate existe in other countien. It has been attributed to the absence of frost, but I doubt not horticulturists may be able to give other reasons. I spoke to a few people at Loughton close by, who never before remembered the forent remaining so green at, auch a late period of the year. In Leicenternhire in Augast I saw in the garden of a friend an Apple-tree both in fruit and blomom, and I heard in Esaex that person there had witnemed the same thing. \(C\).
peppermint culture.-Mesarn. G. \& J. Miller, Mitcham, extenaive growern of Peppermit for dis tillation, find-firat, that Mitcham soil is almont the only soil about London that will grow this Mint profitably; and, econd, that when a crop has been grown for four yeari, the ordinary time, that, so much is the moil exhauted of the constituent which producen the essential oil, that it is useless to plant the wame ground under twenty years. Conld it be shown what that neadful conatituent is, and whether it could be artificially supplied in any form of dreasing? A. D. [Ooly by analyais.-E1]

THE CULTIVATION OF THE ENGLIBH BHOW TULIPA. - It in both gratirying and encouraging to learn that the efforts which have been made daring the last few years, to resuscitate in the sonth the cultivation of that faccinating florist's flower, the amateur's Eaglith Tulip, are meeting with no mach influential support, so much so, that an annual Talip Exhibition in London, in conjunction with the leading flower shows, may in the future be considered a settled question! Toe Talip exhibitions held in London late year and this, could only be looked upon as auccemful, enpecially an the exhibitors had no choice as to the date of exhibition, and consequently, the Talip blooms could not be shown in the highent atate of perfection; they were, however, uafficiently attractive to call forth the admirstion of all pernons touched with the love of florist's flowert, and many were not surprised, after minute examination of their exquisite purity, shape, and
refinement in marking, that their fathern and gravedfather should have been so infatuated in the cultivstion of them. Money prizen, although not high in amount, were given, bat the handsome Silver Medele awarded by the Ryyal Horticultural Society, and Mesara. Barr \& Son, of Covent Garden, were highly appreciated by those exhibitors who were fortanaty enough to win them. I understand that Menm. Barr are atill adding to their leviathan atock, feelin assured that the time is not far distant when the Eaglish Talips will be caltivated in the soath by amateure, al extensively as they are at the premet time cultimated in the north. I have cultivatad for nearly half a century, aimost every deacription a florist's flowers, and I can reiterate sincerely whes have heard the late Doctor Hardy way on muy occasions, "that of all the pleasures which mab derived from the caltivation of florist's flower, noon are so great and charming as thone experiencal by the growers of the Eaglish Show Tulip!" Thetim having now arrived for Tulip planting, amateurs who may feel inclined to give their caltivation a trial, ahould lose no time in obtaining a amall collection, the price of which is a very nominal aum. Jany Thurstan, The Green, Cannock.

Vale of cleveland potato. - When rocently in Lincolnahire I inapected a plantation of early varieties of Potatos grown to teat their earliness and cropping qualities for market purposen. It has been atated that in the Boaton diatert considerable breadth of early Potatos are mrown the aoil, position, and method of calture adopted favouring precocious ripening; and conaiderable came are made by the growers by getting early produce into the varione marketa. Among the varietien tested are Vale of Cleveland and Sharpó Victor, and I could detect no difference between them-in growth, in haulm, and in the shape and colour of the tubers. On making enquiries as to the origin of the Vale of Cleveland Potato, I found it wh raised by the late Mr, Geo. C. Short, nurnerymanand seediman, Stokenley, who described it as a meedling raised from a crons between the Early Rose and th old Ashtop Kidney. The atock of this Potato wha it is said, aold to Mesars. Charlen Sharpe \& Son, it the early part of 1879, and hortly after Sharpo: Victor was pat into commerce; and Mr. Short on testing Victor, pronounced it to be identical with hit Vale of Cleveland. Ansuming these facts to be correc it will account for the similarity I observed in the trial above referred to. I think it is claimed tha Victor was raised by Mr. R. Nigbett, for many jean gardener at Aswarby Hall, Lincolnshire, and lattorl at Cliveden, Maioenhesd; and the question fairl rises-did two men working in the same direction ach raise a Potato perfectly alike? Bat it should be atated there are two Victors in the fiold, one: yellow-fleshed tuber, which is said to be the origina and true form of the Potato, and a white-fentel form, which is said not to be so good. It is claimed or Mr. Nisbett that he raisel Victor from Almi Kidney, at one time a popular early variety, and bith Eld Early Short-top Round. Did one raise th ellow-fleshed, and the other the white-fleshed form. For it is well known that seedling Potatos raiced from definite crossen vary conaiderably, not only in the int of the flesh, bat also in abape and coloar of kin. In the particular trial of early varietied and which I have referred, both Vale of Cleveland a Victor were yellow-fleshed. I am quite anable named ansign a reasno why Mr. Short of Scokenley nan his seedling Vale of Clevoland, anless that is locs amme for the district in which he resided. I hare eferred to this matter because I fiod that Valo Cleveland and Victor are being cultivated andiel different names though to all appearance identice R. \(D\) 。

\section*{Nur8ERY NOTE8.}

MESSRS. J. CHEAL AND SON3.
If farther illustration of the extent of the iemosil Apple crop were needed, this and much other viat to resting information was afforded by a recent nese art the nurweries near Crawley. Wo believe fues and generally thought to be in Suasex, probsbly bection Crawley in the post town, and the nearest theland it there. As a matter of fact, the whole of gill generilly in Surrey, and the vivitor from London will gridg" find it moat convenient to book to "Threo bat ratior station, from whence the narseries are distablantiod more than two miles. The soil in the neighbout
- very heavy, and there in no trace of chalk, nor much lime, at the chalk only approachet at clone as the neareat "downs." The nursery itself is, in large measare, reclaimed land from Lowfield Heath, and consiat of better surface woil than that which arrounds it, inamuch as it is lighter and more workable.
Apple nually do well here, bat the crops this aeanon are extraordinary. A large tree of Besm Pool, near Mr. Cheal's residence, attracted our attention, at it was covered with an abundance of good-nized, well-coloured fruite. "Yes," anid our guide, "that is jast a fair instance of the
until February. Then is seen a good crop of Washington, the frnit well coloured and large; it in a good demert variety, bat too tender at a rale in this diatrict. Yorkahire Beauty is atrongly recommended to growers who have a cold soil as a culinary variety, being thoroughly hardy; the fruit are yellow-coloured, with bright cheek, and of good aize Jefferson is a soft-fruited variety for deasert, very pretty, but not planted in many gardens ; ome very fine fruite of it were noticed. Passing many varietien, mont of them with large crops, we come to Lanberger Rainette, an excellent Apple, good for both kitchen and densert, and a faithful cropper; it in in
quality. Margil and Lady Henniker, Coz' Pomona, and the pretty fruite of Colonel Vaughan were numerous and good. Beauty of Kent, an exceedingly pretty and uneful culinary Apple, though not one of the most maitable for the locality, had rome veis good fruits; nor have we ever meen better apecimens of Royal Jabilee than Mearrs. Cheal have in their fruit room: they are aplendid fraitn.

Tarning from the fraiting-treen to the nurseryground, there are stocks of Apple, Pear. Plum, ald Cherry-trees, and a leaser quantity of Peaches in trained and untrained apecimens. Apples two an 1 three years old on Crab atocks, and other upon the


Fig. 82.-a rofal garden in madagascab. (sre p. 460.)
remarkable character of the reaaon. Bens Puol is a variety which by reason of the cold abooil mataren but poorly here, and that tree has never daring the last fourteen years, to my personal knowledge, borne ach a crop of fine frait as you now see. Coz's Orange Pippin, Washington, and such varieties, are alro wonderfally superior in quality than we generally have them." In a closely adjacont apot are lept a fow trees of a good many varietiea for the convenience of vinitora who may wish to inspect the trees when in fruit without walking through the whole of the groands. Here was first remarked a tree bearing an abundant crop of one of the best of demert Apples Ros Nonpareil. For cold moily none is better, and the quality of the russety fruit is good; it is in use about the beginning of November, but will lat
use at hit sesson, atd will be good antil the end of the year. Hoary Morning does not usually bear many of ite pretty fruits in this district, bat there were good crops when these notes were taken. We shonld not class this variety higher than third-rate in quality, although it bear heavily. King Pippin and Ribeton Pippin, very well known, need no remark, but the crop each was carrying attracted our notice; as did Hormend's Pearmain, which was marvellous-this is good Apple, but more waitable for cooking than consuming raw, though it is mometimes used for both purposen. A tree with a crop of excellent fruits of Lord Lennox was interenting, as we have not asen the variety for come years. It is ementially a midland county Apple, and thore we have seen it; the fruit is high-coloured, rather amall, and of vary good

Paradiee, wo noticed in considerable quantity; ansi maident on either stock had made a good growth. Pears, like the Apples, may bo seen of differing aize and age on the Quince and on the free or Pear tock, and the young trees were fat ripening their growthe.

The atocks, which have been badded this seacon, in most cases are good and strong, in other again they are weaker on account of the dry hot apring following on the severe frost. Among trained trees, the most popular style at these nurnerie is the cordon, and it is made a specialty. We noticed a lot of excellent cordon Pears three jears old, studded thickly with good fruit buds, and very healthy. These trees, if planted againat a wall, would bear good crops of fruit at once. The syatem is certainly one by which all may be quickly and
profitably covered, and also one which will produce really fine exhibition fraite, bat it muet be remembered that some varieties are less anitable for auch treatment than othera. The narsery groundt, as nome of our readers will remember, are divided by a conviderabla number of thick, high hedgerowe of Hornbeam, Thorn, and other plants, which are invaluable an protection from winds. There is a compact piece of land entirely devoted to young frait trees, known an the "8 acres." Here we thought were the kindeat-looking, most promising of all the stock. A nongst the Apples notice was made of the two varieties that Messry. Cheal sent out a year or two ago. The first is Armorel (figured in Gardeners' Chronicle, March 4.1893), a rather small rusuety-densert kind of very high quality; it is exceadiagly late, and may be had in gond condition in May. Atalanta (figared in Gardeners' Chronicle, March 11, 1893), is a larger Apple, pale yellow in colour, with apare red atreaking on one side, and is fit for calinary and densert parposes; it comes into nse about November, and is an ancommoaly good cropper.

Now we have to apeak of another Apple, called Bismarck, because this variety furnished an instance of precocione, heavy bearing that we do not rempmber to have seen equalled. Eighteen rods and a half were covered with Bismarck trees of two years old apon the Doacin. Many of these had eleven, a few twelve, large fraits upon them, and nome had none. Now all the fruits on this piece of land were counted, and the total divided by the number of trees, which gave an average of five to each tree. The treen are plauted in roxs about 3 feet apart, and the plants about a foot asunder. An acre of land cropped in such a manner would yield about 500 baeheln of fruit per acre.

Treas and Shrubs, Dahlias, \&ce. - Mears. Cheal cultivate a great many other abjects than fruit trees, and it would be hardly fair to conclade this note without some reference-though it mast bs only reference-to the atock of ornamental trees and shrabs, Conifers and other plants usefal for the farnishing and embellishment of plessure-groande. Mr. Jo. Cheal being frequently employed in laying out new grounde, and in the improvement of existing ones, a collection of the beat kinds of auch plants is very necessary. Considerable quantities of Rhododendrons of choice varietien grafted on a common atock were noticed, and others which had been so treated a season or two back appeared to be very happy; nor were many of the varietien of Conifers in a leas healthy condition. The Silver Poplars, and other shrubs and trees with variegated or coloured foliage, might be remarked upon, but we must clone after mentioning the Dahlias. Tue firm has an excellent repatation for these showy autumn-flowering plante, and the Lowield collectione are a very familiar uight at mont of the exhibitions. Oaly a fortnight or ago we figared a novelty in the Cactus section for which Meners. Cheal received an Award of Merit from the Royal Hort. Society at the Chiswick meoting; thia was Mrs. Wilson Noble, a variaty of much excellence.
The date when these notes were taken was a late one to visit the Dahlia-grounds, and the plante were very thirsty-looking in the absence of the rain they have aince recerved, but plants of the variety just mentioned wore remarked, and a fine atock of Matchless and Mra. Montefiore, a trae Cactus like bloon, and a better habited plant than many of the older onew, the flower-stems being mach lonzer than is unasl in anch varietiea as Lady Penzance and nearly all others. The bloome were thoroughly well above the foliage. Pompons to our mind are not lens effective than any of the typer, and new ones that may be mentioned are Annie Holton, scarleterimeon, with ailver tipn, very high cantre; and Rovebud, which hat a light ground, and is Thamb type of Dahlins astil wrowing saw the Tom previous experience with thewing in theme nurserien, gether favourable. Here ther looked been altowere blooming in profusion, and some of the rariesien
bear the flowern only 11 inchea above the groundlevel, othern 14 and 20 inches high. The varieties Canary. Fairy Msave, and Dsiay, the last-named being 20 inches high, with good dark blooms, were remarked, and Grom, pale yellow; Tomtit, carlet with yellow rim round diac; Mignonne, mauve, with white rim round disc; and Hoop La, marooncrimson, with light ring, were pretty. This type of single-flowered Dahlia raised by Mr. Girdlestone ir, of course, only aitsble for bedding purposes.

\section*{Mr. Henby Brownhill's Seed Stores, Sale, Manchester.}

All about Cheshire, within convenient proximity to Machester, there are plant and seed farms which evidently pay better than the varions subjects of agricaltare. The land in low-lying, and the marahes are sufficient even in dry measona to keep up the natriment ngeded for a crop of flowers. Many of the growers here about grow for the market alone, and the buadles of flowers of all sorte thas are cut twice a woek-in fact, every moraing-and which fiad a ready ale in town at a price, are astonibhing. The trade in this way ha grown immensely, and the teeming thousand that flock into Manchester almost every day, but particalarly at week enda, from the deasely poparated places of Yorkshire, Lasacashire, and Caysurro use up large quatities of them. Mr. Biunnhill, in addition to hia local trade, growa largely in the seed way for the general market, and in this way ho has a grand how of flowers all through the season. Histock of aunaza, comprising Everlastings, Astera, Stocks, Gsillardias, Centararas, Caryanthemams, Poppies, Zinnias, Seabiosas, Mignonette, and so forth, cover a conaiderable aras, and are selected with the greaseat of care. His stock, too, of such things as Giadioli of the Brencalejensis section is notable, although, he ays himself, since the drainage operations came into force about his neighbourhood, he cannot grow the same sized balbs. The plants were beautiful and healthy, bat bottom moistare is mach relisbed by them. The scarlet is the popular colour in these Sword Lilies. White in Astera, in Stocks, in Gaillardian, in Dahlias, aye, even in Bagonias take well.

This is a special mart for taberous Begonian, which are bedded-out galore both out-of-doors and in the houses covered with glan for them alone. In double Bagoniaa particularly, there is a large and eelected lot. Whenever momething better turn up in the eedling way than any of the type, it takes the place of the discarded ones. Really, the gain in doubie Bagonias is very marked, more particularly on those sort that are as double and as formal as a Csmellie. Many partake of the Holly hock form, and are heavy mansen of florets, oo heavy, in fact, that the flower bend over and require to be lifted up to be seen to advantage. Among some of the most striking of the Sale noveltien are Dr. W. G. Grace, a finely-formeủ rose; E W. Powell, grandly imbricated, and having the Picotee edging, which is mach sought after by the crose breeder; Modiste is a beantiful marked variety; Baaty of Sale is an immense flower of bight colour; and amongat pinke, Wobert Haghes is very telling, and so is Linnie, W. F. Bmollet and G. R. Ward are among the best of yellow. Iadoors they are really beautifal when you see them by the thousand, and outdoora, in anything like weather, they make grand bod..
Rosen, particalarly Teas, are largely grown indoors, both as atandard plants, allowed to roam as they like, and as climbers in the ordinary way. Oae of the most useful is Boagére, because of its standing longer when cat, which is of commercial importance. Nipheto still stand it ground among whites, and the climbing Niphetos is mach appreciated as a good paying variety. Among others, Madame Hoste is grown more than Maróchal Niel, and then Grace Darliag, Catherine Mermet, and the Bride are chief among others. The old Géant de Batailles, as an H.P., it grown here, and proves one of the beat of
market Roses.

There are quantitien of created Pteris grown, chief among them formarket being sempervirenn, a good grower, and a captivating plant. Uae Pceris anmed

Oaverardi was a dwarf beautiful form, with undulating pinnm, and wo dwarf and bushy, sa to make it an eligible plant for table decoration.

A large crop wa being harvested of a new Pas called Rentpayer. It is a cross between Maclean's Little Gem and Dake of Albany. It is a remat able gain in its atiff habit, sbout as atout asa Wiodso Baan in the atalk, and remarkably dwarf, bearing aboat an average of ten peas in a pod of typical wias. The pods were borne in cluater about two-shirds up the stem, and the heaviest manared plotedidnet produce stalks more than 30 inches long. Viator,

\section*{SOCIETIES.}

\section*{ROYAL HORTICULTURAL}

Octobrer 15.-Owing to the vegetable exhibition held at Chiswick in September, and the great ition of British-grown fruits at the Cryatal Palace on the \(26 \mathrm{th}, 27 \mathrm{th}\), and 28 h of the tame month. tho meeting held in the Drull Hall, James Sareet, Went. mioster, on Tuesday laut, is the first that has taken place in the builoing since August 27. Os the occasion under notice there were plenty of exhibite before the committees. Orchid were namerous; Chrysanthemams occapiod a considerable share of apace and attention ; and several groaps of a mitcellaneous description were important. Fruits were again largely exhibited, more especially Apples and Pears ; and new Melons, Applea, Poars, and Grapen, a seedling Plum, \&c., gave this committee ample cope for their discriminating qualities. Of vegetablet there was ataged one of the very finent collectiont ever exhibited in the hall.

\section*{Floral Committee.}

Present: W. Marshall, Esq., in the chair; with Menarb. J Fraser, O. Thomas, C. T. Druery, B. B. May. H. Herbss, J. H. Fitt, R. Owen, R Dena, G. Stevens, C. J. Sater, J. Jenninge, H. Cannell, H. J. Jonee, H. Brincoe Ironside, E. Beckett, J, Walker, C E Pearnon, E. Mawley, C. E Shat, J. D. Pawle. J. T. Benneat Pu, H. Tarnar, G. Paul, R\&v. H. H. D'Ombrain, C. Blick, G. Nichoinon, and C. Jeffrien.

A large and excellent collection of Crotons, ayranged in a croup, was exhibited by Mr. H. B, May, Dyson' Lane Nursery, Upper Edmonton. The broad and medium-leared varieties Thomsoni, Newmani, Massangeana, Motii, and roser-pictus were noticeable for their colour; also finer reaved sorts, as Mrs. Dorman, nobilis, formosus, majesleaved sorts, as Mrs. Dorman, nobilis, formosus, a ferm
ticus ruberrimus, Flambeav, and elegantissimus. plants of a new yellow Carnation named Primarose Day were also included, and a crimson-scarlet one named Leonides (Silver-gilt Flora Medal).
A collection of Nepenthes and stove decorative foliage plants was shown by Earl Percy, Syon House, Brentoord (gron Mr. Wythes). The Nepenthes were very praiseworthy, and carried a fine lot of pitchers. Inc uded were such vaneties as Mas ersiana, Rufflesiana, Hookeriana, Amesiana, Dickionian, the new and handsome mixta, sormosa, Wriglegana, Curtisil the new and handsome
superba (Guld Medal).
Mro. Wingrield, Ampthill Eouse, Ampthill (gr., Mr, W. J. Eoppson), had a group of emall Crotons, Aralisa, and other foliage plants, backed by a few specimens of Amania excelsa Medal).
Dabliay have not yet been cut by frost in the Tottemham district, for Mr. Thos. S. WARE, Hale Farm Nureerien, staged a large collection of flowers of the single type, very remarmin in quality and freshuess for so late a date. A few Nerinemin in quality and freshuess fore Mro showa by Mr. ARE (Silver Flora Meda). A. LaUrie, Euq., Rockdale. Serenoula (gr, Mr. R Frand exhibited a dozen plants of a seedling yellow-leared pala \& gonium, but as exhibited the variety is not valuable. A plant in flower of Hippeastrum striatum maculatum 10 -inch pot, beariog about eighteen scapes of flower, exhibited by H. G. E. Green, Esq., King's Ford, Colobeetern (gr., Mr. T. H. Kettle). Mr. O. Thomas, Frogmore Garinen, oxhibited blooms of a new Violet named Princess ond of i the flowers are very large, pleasantly fragrant, aid pretty blue, with a dietinct white eye (Award of Merit). \(\AA\) bie pretty biue, with a distinct white eye (award o plant of Abium Douglasi glauca pendula, shown by Messrs. PaUL \& Sor, quito Old Nurseries, Cheshunt. This glaucous variety in floes distinct, and decidedly pendulous, the branohas droopird a to to the main stom. Mesers. P\&UL a SON also stagor all plants in flower of a new Tea Rose, which they havo art, woud Paul's Winter B oomer; the bloom is pink in colowrt and very pretty as a bud. Also a few plants of the blue where it Caryopieris Mastacanthus from the open ground, whe stood during the last severe winter.
Mr. R. MA WLEY, Hoseosat Great Berkhamsted, exhibital blooms of an attractive single Dahlia, named Beauty 1 . \({ }^{\text {To }}\) blooms of an attractive single Datlia, nam staged by 1 N J. Empson, gro to Mre. Wingricld, Ampthill.
J. Empson, gr. to Mre. Wivaricld, Ampthill.
A few bloome of the intense coloured Nerine atroribes


Mesara. Jas. Veilich \& Sung, Cheises, exbibited a fine lot of fruits of the new large ant exceedingly ornamental Pbysilis the proseut ocession these columns, (het 13. 1894. p. 441. On clans Crest octiate. Meara plant was recomontoded a First clas Criftheate. Mesara. Verach had al-u some well-grow Whats of Litium Ong thapum Karris in in llower.
By Meary. F Sasurir a Co. St. Albans, were exhibited
some firie fol age Piliar Begonias : Prince of wo some firat folage Piliar Begonias: Prince of Wales and Prin cess of Wates are of a very pretty metalue sia le; and Duke of Yors aud Luctes, of York have mure colour, and are of much decorative valus. A very fine platat of Sarraceaia Drummondi majir was also bhown (Cuitural Cummendation), and a few \(\mathrm{H}_{3}\) brid sonerilas.
A headutiful Nerine Moore; of bripht scarlet hue; N. Meadombuntii. of demp rose; N. raraicosis, and N. flemuosa Were shown by Mesmis. B. S. Williama a zon, Paradiee and Victoria Nurseries, N.
Frow Mesars. H. Canneli, \& Sow, Swanley, came some excellent trusses of zanal Pelarganiums: Madnme Brament, the centre of the bloom: Bell- Allian e, white, whthat central pateh of pimand duts, fatie novel; Iat y Newion, seaple!

 crian ron of a pleasing fint. From the eame aud Nan y. hight criman of a pleawng fint. From the mame nupary were exfiae large fragrawt single-flowriped Violet Princess of Wales. The vartety hay a long thuner-stalk.
Messps. Yatcl \& Sun, The Old Nupserg, Cheshunt, had a select, if ymall, collection of flowers of hary. Cherbaceous plants, Including Phomes decutata. Henry Marger, Aurore, and cranus. Heleniums, Astrantia, Rudbeckiaserata, Stokesia phaniums, \&e.
The tive crimson winter-flowering Begonia \(\times\) Mrs. Heal, ohown by Mesara. J. VeItch a sovs. Chelsea, received au Award of Merit. The blooms, chiefly male, mea-ure is to 3 inches in diameter, are chiefly produced from the axils of the leaves. Caryopteris Mastacinthus plants, in well-flowered examples; a new Carnation Mrs. Leo pold Rothachild, of deep rose-colour, and handsome form: Carnation J. Gardiner Muir, of teader He-h-tint (Award of Merit) ; and Begonia aceri folia \(x=\) B. decora of and B. Barietip; a plant with bronzygreen palmate leaves, having pale green veins, and a marginal zone of sivery-flakes, came from the same nurseries.

\section*{Cerrisanthemums}

Which flower in October are b.inning to put in an appear. coce, and the rapidity with which new vari-ises are produced makes the task of selection a somewhat difficult one, as it nearly approsch each other - hy diferent insichuluals ver the Floral Committee on this caccasion. A find and atriking Jellow was thown under the name of John Seward, by Mry closely renemble H. L. Sunderbrach it was thought to so advisable to withhold an award until the two could be shown together. Awards of Merit were made to Mr.C. J. Salter, gr to F. B. HAITFunt, Eur., Woorlbatch. Reigate, for G. H. Hay woo i, a larke broar-peralled creany-white Japas, ese, somen hat incurred, and promingg to make a uneful back-row flower; to Mr. H. SHoesmith, Lurseryman, Wokng, and Mr. H. J.
Joses, fureryman, Lewibham, for Phobus a broad petalled, clear jellow slightly incurved Japanese, of large size. ahown as fine cut booms by the former, and on a plant of rather tall growth by the latter. To Mr. R. Owfy, nurgeryman, fine broad-petalled pure white Jipanese of bigh quality, said to be a seedling from Viscountess Hambleof petal, and for Pomp n Yellow build and masmiveness fiombriated flower, having a very free habit; to Mr. W. Wrmed nurseryman. Farlswood, Redhil. for Roule d'Or 1895. a very fiae iacurved Japanee, the petalshaving a lovely brownish surCace, with a pile yellow reverse, extra fine, raised by Mons E. Calvat; to Messrs. H. Carvelil \& Sons for Prise of Madford, an Ampricin variety with incurved florets, of bright ruhycrimson colour, with a silvery reverse, a large, full nnil striking Iower. An Award of Merit was made to Mr. H. BriscoeJapanese, of his own raising. in the way of Sunflowsr-probally the deepest yel ow of the yellow Japanese yet seen.
Mr. H. J. Jones had a verg fine and effactive group of way of grouping these plants. At the back were somen in the Bamboon, and miugl- pl with the Chrysanthemums were some Palms, Ferns, Dracuenas, \&s, ; in the group were examples of Phobua, Mrs. G. Gover, crimson and salmon; Mrs. R. Jones, White; Mons. Auguste de Lacvivier, pale cerise with yellow Reine a'Angleterre, pink and parple, A. Moulin, white; Meine aldngleterre, pink and parple, aplashed with white; Oeorges Biron, crimson, with amber reverse (Aw; and Mons. Gilt Bankian Melai.) Mr. Jonfs aleo had cut bilverof Japanese Emily Spilsbury, white, in the way of Madomoiselle Thé.e. Rey, which the committee winhed to see gain; A.H. Fewher, an incurved jellow Japanese in the way of W.H. Linc sln-the committee also wished to see this again; Mra, J. B. Taylor, white; Eva Knowles, bright pale orange-cerise, with pale amber rever:e; and M. Yaul adderman to pale bright crimeon, with goldon reverse. In man, a small but very frepefles, Mr. OWh: had Mr. Bachman, a small but very free-flowered Japanese, the colours to be an excellent decorativp variety, but the centre, aaid Wished to see a plant; Lady Ridgeway, a very the compiog flece
the surface pale ceriso, with golden rereres and deep golden contre, bruad-patalled; Calomel Bernard, pale rodish-ernmanon, with amper reverse.
Mr. Wells has a rollection of cut blooms also, inciuding Madame Adrien Armand. a reflezel full flower, the sarface tinted and aported with pale rowe; Mrs. E. S. Traffard, orange and salmon-red rurfacp, and buff rererse; Jambon, red and gold; and Suprome, bright purphish-rose, with sulvery reverse, - broad-patalled flowar.

From Mr. Owen Tenmas, Ruyal Gardens, Frogmore, ame somong thenu Mru. C Harmese varieties, and prominent among them Mra. C. Harman Pagne, Avalanche, Beató Mr. Emprod, gr. to Mre. Wing Fiend, Ampthill House, Ampthill, had a dwarf free-blooming plant of Mry. Anthony Wing field, deop b:ush rellezed fluwers, likely to be ustill as decorative variety.
Frow Mr. C. Penfold. The Gardens, Leigh Park, Hevant, anme Jopanese Mudame lo Capitain, blush, deepening to

\section*{Orchid Oomeartee.}

Present: Harry J. Veitch, Eird., in the chair; and E Hul, Walter Cobr, J. Diaglas, Sidaey Courcaald, D. B C-awahay. H. M. Pullett, Caae. Pilcher, J. Wabriml, Fred. Hardp, E. Ashworth, Thon. Statter, W. Thompson, H. Williame, A. H. Samee, and T. B.
Hismood.

Some groups, embracing many remarkable varieties, were staged. Of the showy Orchids, one of the most beautiful was Cattlega labiata Couksonise, staged by Norman C. Conkson, Esq., Oakwood. Wylam-on-T, ne (gr., Mr. W. Murray). Its pura white, withe true autuma-fiowering labiata form, but which was edged with white. The hand lobs to the labellum remartabledged with white. The handsome flowers bore a Countess of Derby. which to those of the uaique Cattleya clars. The plant was unadimously of tho C. Warscewiczi clars. The plant was unanimously awarded a First class Of the bot
Of the botanical, but still handsome class, a very remarkable and beautiful plant wan Cirrhopetalum Rothschildianum, sent Rothechild's gardens, Tring Park. Tring the Right Hun, Lord Rothachild's gardens, Tring Park, Tring (gr., Mr. E Hun, Lord Whichalso received a First-class Certificate, a rare honour for a meaber of this singular genus. The plant had bluntly angular preudo-bulbs and narrow fleshy leaves, the bulss being bore three large flower, which may not inaptly ina likescence narrow tlowers of Masdevallia Chimanera, the hoodel uppergepal was yellow, streaked with purple, and bearing at its apex an ornate plume of purplecrimsoa colour. The smaller petals were similar to the upper sepal and similarly decorated, and 1 inch across at the upper part, extended somessured over lengit. th, lower part being slender and taillite 6 inches in almost wholly of a rich purple, with a freckling of yellow showing between in places near the column; the hinged lip was purplish-crimson. In colour and form this flower was most remurikable, and very quant when the air atirred the hairs or plumes which decorated the segmenta.
Mr. Davi-) staged a very fine and effective goodford (gr., Mr. Davi-) staged a very fine and effective group. composed chiefly of forms of Cattleya labiata, in the cuntre being a throughout the group of Epidendrum Godseffianum. and Schioderianum, Miltoniz Mo fine Dendrobium Phalæenopsis noble form of \(V\) Sanderiana (Silver Fiora Med
Meswry, HUgr Lonw Co Co., Cinpt in, showed a
sentative group of the Orchids of the reason pretty reprefavourite autumn-flowering \(C\) of the reason, in which the groups. presominated, but in Mersrs. Low's collection other least one very remarkable and beautiful form. viz. \(C\) was at Lowise, a white variety with purple blotch on the lip, which also had a broad, crimpet, white marain-a charmip. which nation. The plant, which was hardly mature for exhibicion received an Award of Mert Also in Messrs. Low's group won, a fine selection of Cypripedium Churlesworthow's group were a fine selection of Cypripedium Charlesworthi, the singular Bulbuphylum mandibu'are,
\& (Silver Banksian Medal).
Messrs Jas Veitch \& Son, Rogal Ryotic Nursery, King's
Road, Chelga, shuwed two varieties of Chen Road, Chels a, shuwed twn varieties of Catt ega \(\times\) Manatini than the other. The largest bore a four-fiowered inflorescence the fluwers much resembling those of a large C. Skinneri, but with a more open lip, and with a alaht yeulow tint suffasing the dark roey-lilec flowers (Award of Merit); Lellio-Cattleyang pretty hybrid; L. C. \(\times\) Fortun* (L. elegans alba (? Schilleriana) §.C Momeise ©, with flowers resembling those of a lerge L.-C. \(X\) Schilleriana, but with the rounder, crimped labellume of Moesise ; sepals, petals, and tube of lip. white tinged with lilac; front of lip purple, with a yellow base to the tube: and Læelio-Cattleya \(\times\) Isis (C. \(\times\) Mastersoniæ of \(\times\) L. pumila , which somewhat resembled a fine form of Læelia pumila prestans.
The fine group for which Messrs. F. SANDER a Co., 8t. Albans, were awarded a Silver Banksian Meral, contained many good things, one of the moat remarlable and pretty being Leho-Cattieya \(\times\) Gottoinas roaea (hyb nat L. tenebrosa \(\times\) C. labiata), and which, while retaining the form of L. tenebrosa, has clear rose fluwers, with light purple veining in the lip (Award of Merit). Also in Messrs. SANDERs group were the pretty Rpi-Lseiia \(\times\) Harcyana (L.ancepm \(\times\) K cilsare) and which was illustrated in the Gardewers' Chronicle,
November 24,1804, p. 629 ; a fine pan of Habearia Sumane,

Mormodes buccinator and M. Rolfeanum, the rare white of s iarlet Sophrontie. Oacitium ornithophyacham nica pans of sallimatem, Millonia. Macidium oraithophyacham O. MarBhallisnum, Milconia Moreliama, abd a number of Variocies of Dendrubium Phalacopses Schroderianum.
Messts. Charleswori
 arranged a very effective group of Orchida, in the centre cf Which was a magaiticent apecinsen of Valla currulea, with Cattloya Bungerothii, varieties of Odontoglossum crimpa Cattleya Gaskelliana delicata, and many Cypripedium Charle worthii, were conspicuous in the group which Charle Silver Banksian Medal.
Measra B.S. Willians \& Son, Victoria and Paradise Nur flower, Upper Holloway. N., had a pretty group of Orchide in fower, remargable fur the presence of three of the Pescatore but which always cause admich are not often seen exbibited, torea Rotzlii alba, five white; P. Khown, viz., Pescawith criazon tips; and \(p\) white; P. Klabochorum, white with criaron tips; and P. Lehmanni, a prand Fiolet and

 cherianm, Williams' var., C. \(\times\) rubrum, \(\because, \times\) vexillarium oup:rbum, some fine Oncidiums, Pleiones, C'attleyas, \&c. (Vote of Thinks).
Cuncan) LuCas, Raq., Warnham Court, Horaham (gr., Mr lescribed in the pretty white-and-purple Sobralia Liadenii of Merit).
W. Thompgon, Esq., Walton Grange, Stone, Staffordshire (gr., Mr. W. Stevens), showed Cattleya labiata, Thompson's varie. y, a large and richly coloured form (Award of Merit). C. labiata cuerulea, in which the whole flower had a tioge of blue hue, the front of the lip being dark, and of a decidedly blue bue (Award of Merit). Vanda Kimballiana, a nob!e plant, with seven apikes, which had been grown for years in the Odontoglossum-house (Cultural Commendation) Cspri pedium Chariesworthii marginatum, with white upper seppihaving a base and margin of rose (Award of Merit); and cut epites of Miltonia Schroderiana, Odontoglo:suma, \&e. A. J. Hoblamton, Erq., Forty Hill, Enfield (gr, Mr philippinerse), a noble flomer \(\times\) Alfred Hollington (ciliolare \(\times\) philippinerse), a noble flower of the C. seligerum clasa, but
more massive, and superior to any in its section (Award of more mastive, and superior to any in ita section (Awar
Mrrit); and C. \(\times\) Evenor (concolor Kegnierii \(\times\) Argus). Thos. A'tatrer, E-g, Stand Hall, Whitefield, Manchester (gr, Mr. R. Johuson), staged a fine plant of Letio-Cattleya \(x\) Catlleya, a varea, and Closely resembling L.-C eximia; margined with rose; Cattleya \(\times\) Lord Ruthschild, and \(C\). bicolor ccerulea.
De B. Crawshay, Esq., Rosefield, Sevenoaks (gro, Mr. S. Cooke). showed Vanda Kimballiana, Ntudd's varioty, a very large and good form.
Mur Fredrriok Wigan, Clare Lawn, East Sheen (grower,

M. A. A. Peeterars, of uorecorded parsels, sent Cypripedium \(\times\) Francois Cbas. Richman; and the curiously-flaked Cattleya labiata Peetersii.
Walter Cobb, Esq., Dulcote, Tuobridge Wells (gra, Mr hybrid between M. candida ant M. cuneata, apposed nataral segments. barren with brown, and slightly concave white with purple dise (Award of Merit).
G Marshall. E-q, Claremint House, Grimsby (gr., Mr. Johnson), sent ont examples of Vanda Kimballiana alba, and other species.
Mr P. MCirthur, Maida Vale, staged a group of Orchids, comprising Cattleyay, Cypripediumes, Maxillaria grandifiora, Dendrohiu \(n\) Ph arenopsig, D. formosum, \&c (Vote of Tha ke), F. W. Moore, Esq., Koyal Botauic Gardens, Glasnevin, trepia maculata. Sir WM. Marriott dinctiorum and ResI ro, sent Cypripedium \(\times\) Marriott, Down House, Blandhybrid, with white fluwers, slightly spotted with parple, and somewhat res mbling C. \(\times\) microchilum.
Cattoy. Hakdy Eeq., Tyutesfield. A ihton-on-Marsey, showed Cattleya B,wringiana, Hardy's var., a large and richlycoloured form. J. F. Ebner. Woodlanda, Beckenham (gr., Mr. A. Walte), sent two hybrid Cypripediums.
Mr. Paterson), eat Oncidium Park, near Beckenham (gr. hybrid Miltonia, de. A. SHiPLEX, Eq., Elimiond, Westhary-on-Trym, Briatol, eve A. SHiPLEX, Eq. Eleafiend, We

\section*{Fruit Committeo.}

Preant: Philip Crowley, Eoq. (Chairman); and Menirs. R Pbert Hogr, Geo, Bunazrd, W. Wiks, T. T. Waltmareh, J. Wright, Alex. Dean, W. Farr, Geo. W. Q. Lane, J. Samese, Jamee Hudion, Geo. Raynold Divers.
From the Royal Gardens, Frowmore, gr., Mr. O. Thomas, Wraite were of medium size, bighly Frogmore Dessert. The identical with the Slow Apple. coloured on one aide, and another dish of Applen, named Princess, a yellow fruit streaked with red.
Mr. W. J. Empson, gr. to Mps. Wivafikld, Ampthild, Variety, called Red Streak Beauty.

Another Apple, called Stabbis Seedling or Winter Quarenden, was shown in quantity by M. W. Pslmer, Cobden Villas, Andover. The fruits are very highly coloured, in shape lik Quarrenden, but rather larger. Some of the beat fruits dire quarrenden, but rather larger. to ascertain their keeping qualities.

Mr. E.C.Banks, Waterville, Nova Scotia, sent some fruite of an Apple which he called Banks", or Red Gravenstein, also some fruits of Gravenstein, for comparison.
Messrs. Paul \& Son, Cheshant, sent fruits of a large kitchen Apple, named Captain Sanders, which the committee desired to see again in the spring.
Still another new Apple, Lindura Pippin, was exhibited by Still another new Apple, Burs, Eqq., Leighton Buzard; the fruits are of F. Welis, Eeq., Leighton in colour, and but little like a moderate size, quin in appearance.
An extraordinary coloured fruit of Bienhein Orange An extraordinary coloured iruit of Beenkei, 8, Dudley Villas, Portswood Road, Southampion (Vote of Thanirs); and Mr. E. Hill, gr. to Lord Rothschild, Tring Park, exace some of the largest fruits of Doyenné du Comice Pear Com seen. They were grown on an outside wall (Cultural Commendation)
Mr. WILL TAYLOR again exhibited bunches of the hardy Grape, Reine Olga de Würtemburg; and from the Royal Eorticultural Society's Garden at Chiswick came ripe banche f the hardy Grapes Chasselas Rose, Chaseelas Noir, and Gamay Noir; the two last-named, but especially Gamay Noir give the best results in the open-air vineyards belonging to the Marquis of Bate at Cardiff. Another Grape, named Black Monulka, was also sent from Chiswick. The bunch was Monulta, was and thin, and the berries hf acorn shape, and rather long and thin, with litle flavour, but juicy and aweet, evidently from indoor culture.
Mr.W.J. EMPSON exhibited a rather indifferent bunch of Mr. Wrape Mra. Wingfield the berries are black and rathe the Grape Mrs. Wingfieli, those of Madresfield Court. The long in shape, a little Jire those of Marresfel
The white Grape Marchioness of Downshire was exhibited The white Grape Marchioness of Downshire was ez
by Mr. T. Bransiaw, Hirsborough Maston Hall, Guisborough, Yorkshire, exhibited four fruits of a new Pear, namod Charles Ernest. The fruits are large, not unlike those of Pitmaston Duchess in shape, yellow with ieolated flushes and tripes of red.
Mr. H. Deverilla, Haubury, exhibited very large bulbs of his Ailaz Craig Onion, and the flatter-shaped Anglo-Spanish variety.
Mears. DOBBIE \& Co., Rothesay, had good Leekn and excellent Curled Pareley, known as DJbbie's Selected (Siver Banktian Medal).
Mrs. Jones, Greenford Place, Sudbury, Harrow (gr., Mr. Jones), erhibited excellent Leeks, Ayton Castle Giant, Cham Jones), eze Lyon, and Sutton's Prizetaker (Cultural Compion, The
Melon Earl's Favourite was again exhibite 1 by Mr. WARD of Longfond Castle Gardens, who had sir fine fiuitg (Vote of Thanks).

Seedling Me'ons included one called Anthony's Favourite, shown by Mr. W. J. EMPSON. The committee asked to see further fruits of the variety.
R. Buraell, Esq, Bury St. Edmund'd (gr., Mr. Bishop), showed two red-flesh Melons, named reaptctively, R.H.S, and We,tley Hall.
Mr. Geo. Wythes, gr. to Earl Pfrrcy, Syon House, Brentford, exhibited two small apricot-coloured fruits of Melon Beauty of Spon.

Applea and Pears were exhibited in large quantities. Mesern. Piul \& Son, The Old Nurserie*, Cheshunt, had a collection of deasert Apples in about fifty dishes. Gascoyne's Gcarlet, King of the Pippins, Jonathan, Mabbott's Pearmain, Golden Reinette, Blenheim Orange, Cheshunt Pippin, Fearn's Pippin, and Adams' Pearmain we colour (Silver Banksian Medal)
Mosrs. T. BIVERS \& SON, Sawbridgeworth, exhibited a collection of Apples and Pears of remarkable quality, and the varieties were selected from the very beat: Washington, Court Pendu Plat, Belle Dubois, Wadhurst Pippin, Bismarck, King of Tomkins County, Peasgood's Nonsuch, and Coz's Orange Pippin (the last-named variety being shown as large as Bleaheim Orange is usually seen), were all superb, Among Pearr, prominence was given to Conference (Rivers), Pit maston Duchess, Magnate, Gemaral Todioben, and Doyenné du Comice (silver-gilt Knightian Medal).
Messra. T. Rivers \& Son, Sawbridgeworth, exhibtted fraits of a new large purple Plum, Rivers President. It was recom mended an Award of Merit on account of the fruita baing so late. This much has already been proved.
Messrs. Jas. Veitci \& Sows, Royal Exotic Nurseries, King' Road, Chelsea, brought a collection of Apples in a hundred varieties, all of them different from the hundred kinds staged by the firm at the recent show at the Palace. Among Apples we noticed Lady Suffield, Braddick's Nonpareil, Rymer, Wy ken Pippin, Bess Pool, Northern Creening, Betty Geeson, Woldan Pippin, the Old Ringer, and other less known sorts Goldan Pippin, the Old
(Gilver Knightian Medal).
The only collection of fruit from an Amateur was one of Apples and Pears, Irom the Dowager Lady PREAKE, Fulwell Furk, Twickenham (gr., Mr. Richwood), who had about forty Wishee of Apples, and thirty of Pears. Many varieties of each Were showa in sood condition (Silver Banlsian Medal).
Aleabembles wore capitally blows by H. H. GLBBS, Raq. bitorman House, Thotree ( Gr ., Mr, R. Meckett). This exhibitor had very large and excellent oollection. The back-fell-Protectiog), Cavififor, Artichokes, Broceoli (Veitch's Kale, Sco ; and Chere wers (Veitch" Autumn Giant), Kale, ke.; and there were very fine rocts. Parsnipe,

Sutton's Student, Carrots Long Red Surrey, Veitch's Match less'Scarlet, and Sutton's New Intermediate, were all capital. Loeks, Sutton's Prizetaker and The Lyon were large and very good. Celery, Standard Bearer, Sutton's Solid White, and Catbush's Red. Onions were wonderfuly large and heavy; the varietiea were Ailsa Craig, Sutton's Al, Coct ez nut, and Sutton's Exhibition. The varieties of Crimson. hibited were Pragnell Exhibition and Dell's Crimson. Turnips, Veitch's Red Globe, Green-top, Stone. Potatos, Magnum Bonum and Snowdrup. Bean (Runner), Ne Plus Ultra and Jubilee. Then there were Brussels Sprouts, Salsafy, Stachys tuberifera (Chinese Artichoke), Capsicums, Tomatos Cabbage, Colewort, French Beans, Peas, Mushrooms, Maize, Marrows, \&c. (Special Cultural Commendation and Silver-Gilt Knightian Medal).
Knightian Medal).
A fine collection of Celery was exhibited by Mr. W. H. Divers, gr, to the Duke of Rurlind, Belvoir Castle Gardens, Divers, gr, to the Duke of Gem, Sandringham Dwarf White Grantham. Sutton's White Gem, Sandringham Dwarl White, Incomparable Dwarf White (Veitch), Wright's Solid White, (Veitch), Cole's Crystal White (Veitch), Sutton's W. DIVERs and Belvoir Castle White, raised by being similar in The last-named is described as being similar in quality to the Major Clark from which it was raised. Nearly a score of red and pink varieties were shown, and among them was included a rather large variety named Man of Kent (to be tried at Chiswick), raised by Mr. Divers, and deacribed by him as remarkable for standing longer than other kinls before run ning to seed (Silver Banksian Medal).
Mr. H, A. Orr, Bedford, exhibited his patent storing-tray for fruit, noticed at the Crystal Palace. High Commendation and a Silver Banksian Medal were extended by the committee to this useful contrivance.

\section*{Lecture on Nut Culture.}

In the afternoon a lecture on Nut culture in England was given by Mr. Jo. Omer Cooper, The lecturer explained the botanical affinitien of the Hazel the various uses to which the wood has been put, and then gave some information reapecting the caltare of Filberta in the district of Maidatone. Mr. Cooper's Filberta in the district of Maid Filberts.

\section*{NATIONAL CHRYSANTHEMUM.}

October 8.- A considerable number of new varieties of Japanfae Chryanthemam came before the Fioral Committee on the above date, and Firstclass Certificates of Merit were awarded to the following: - Mons. Auguate de Lacvivier, pale reddith-cerise, with yellow reverse-a larige, foll, broad-petalled variety, of great promise (H.J Junes) This variaty was also finely shown by Mesary. J. Veitch \& Sons, in their groap of plants. To Phoobus, a large deep yellow Japanese, likely to rake a very usefal exhibition variety (H. Shoesmith). To Boule d'Or 95 (E. Calvat), a very fine amber-coloured incurved Japaneap, in the way of Loaite in reference to its baild (W. Wells). To Lady Eather Smitb, a magnificent broad-petalled white variety, a seedling from Viscountens Hambleton; and Pompon Little Gem, a mall and finelyformed bright yellow variety, very free (both from Mr. R. O wen). To Mone. C. Molin (W. J. Godfrey) ; and to an early-flowering Japaneee, Madame Marie Mane, previoualy demcribed, a mont useful decorative variety, beiag remarkably free.

\section*{NEW InVENTIONS.}

\section*{A SAFETY LAMP}

The question of the aafety of paraffia lamps is one of grat intereat, affecting rich and poor alike. Far too frequently we read of lamp explosions, and many timen the recessity of leginlation in the matter has been urged. But with the Kienow Safety Lamp (one of which we have received for notice) explonion is imponible. And considering that one of the largest insurance companies hat taken the riak of issuing an insurance policy againat fire with every lamp olld, they at leat must believe in the claims of the inventor and manufactarer. The remervoir being made of metal, it is unbreakable in the ordinary eense of the word. The patent conaists of a tabe made in the shape of the letter \(\mathbf{S}\), through which the wick panser, and should the lamp be upset or dropped, one half of the S-like tube fills with air and prevente the oil excaping. An excellent gardener's lamp for use in his lantern when examining the thermometers in the houses and atoking the boiler-fires at night, the light being far more brilliant than that of a candle; and should the lamp be knocked over, nothing worne than a amoky chimney can happen. The renorvoir is of about the ize of a

Peasgood' Nonuch Apple; and the total height, inclading the chimney, about 9 incher. The maken are Mearra. Kienow \& Co., 25, Fore Street Arenep, Londod, E.C.

\section*{Bbituary.}
J. Crispin, F.RH.S.-We regret to anooares the death of Mr. Jamen Criapin, F.R.H.S., tho head of the firm of Jame Crispin \& Soms, Horticaltaral Engineers, of Nelson Street, Brintol, who, after a prolonged illnesa, at fifty-five years of age, pues. away at his residenc?, Chester Park, Fuhponde, on the 14 th int. Mr. Criapin was born as Molla, mete Frome. A skilled horticaltaral engineer, krymel his buminess operations over a very large meen wher his knowledge and experience were readily wmited, and alwaya appreciated. He was one of the mans succesafal growers of Oichids in the kingiom, and only recently, it will be remembered, he had a my. nificent show of these mach-prized flowern at the ahowrooms of the firm in Nelson Street. His wo lection at his residence, Chenter Park, wu will known, and attracted many amateura from all pun of the Weat of Eagland. He many times moa 1et prize for these Orchide at flower inom, an twice he was awarded the Bankian Medal of tho Royal Horticaltural Society.

[The term "accumulated tomperatare" indicates the segr gate amount, as well as the duration, of degrom temperature above of below \(42^{\circ}\) Fahr. For the Din Dr. named: and this combined result is oxpresen invil
 an inversely proportional numbes of hours.]


The distriota indioated by aumoar in mond purith


England, N.W.: 8, England,
THEPAST WE\&K. Trit following summary record of the weath the British Inlande for the weel end furnished from the Meteorological Offioe:-

The weathor during this period was genurally and unsettled. Frequent rail was oxpariapced lish districte, heary falls occurring at mosth. on the 8th, and in Scotland on the 11th
\(\because\) The temperature just equalled the mesn ovar mal part of England, but was olightly below it northern parts of the Kingdom. The diete nurged northern parts of the kinpdom. Tarlable dated
in ' Eogland, 8. and the Channel Islands, to \(57^{\circ}\) in ' England, N.W.and Ireland, \(N_{0}\) ' The loweot of the minima were reconded fluring the early part of the week in the more northern localities, and on the 11th in the south; thoy ranged from \(20^{\circ}\) in "Irelased, 8., "and \(31^{\circ}\) in 'Soothand, X. and E.ged to \(38^{\circ}\) in 'England, N.E. and \(\mathbf{N . W . D ^ { \prime }}\) 'and to \(\mathbf{~} 4^{\circ}\) in the "Channel Islands.
'The rainioll was rather loss than the mean over ' Ireland and in England, N.W.' avil just equal to it in 'Scotland. E. and W. and England, S.W.;' in all other districts there was an excos, that over the north-eastern parts of England being large.
- The bright sunshine was much leas prev.'nat than of late, but, taling the Kiogdom as a whole, it did no 'iffer much from the cormal for the time of year. The percentib af the possible duration ranged from 34 in "Ireland, 8 o.g to in - Scotland, No, England, K, and 8.W.0' and to 28 in tho ' Midland Conatieng."

\section*{Mabkets}

\section*{COVENT GARDEN, Oetober 17.}
[W0 cannot soovet any reaponsibility for the subjoined reporta. They are furniished to ra regularly every
Thursday, by the kindnees of several of the principal esalesmen, who revies the list, and who are resposibible for the quotations. It mast be remmembered that these quotations do not represent the prioes on any particular day, dato of our report. The prices depend procoding guality of the emples, the supply in the market, and the deanand; and they may fluotuate, not only from day to \(\mathrm{d} \mathbf{3}\), bat often meral times in ose dav. En. 1
Out Plowimo-Aterage Wholusure Proos.


\begin{tabular}{|c|c|}
\hline  &  \\
\hline Asters, per dozen & Foliage plante, dox. 1200240 \\
\hline & Fuchsias, per dox. .. \& ©-6 0 \\
\hline \begin{tabular}{l}
Chirysanthmums, p. \\
doze pote ... 6 0-12 0
\end{tabular} & \begin{tabular}{l}
Lilium Harrisii, per \\
dozen pots \(120-24\)
\end{tabular} \\
\hline Coleus, per dorenco. 2 8-4 & Marguerites, p. dor. \(60-90\) \\
\hline Cyperas, per dozen \(40-100\) & Mignonette, p. dos. \& 0-60 \\
\hline Dracrena, emeh ... \({ }^{10} 0\) & Palme, various, es. \({ }^{2} 0-100\) \\
\hline ous, & ecim \\
\hline Ericas, various, doz. 60 0-1 & 8olanum, per dot. ... 9 0-1 \\
\hline Evergraeng Sbrube,
in variety, dos. .o. \(60-24\) & Spireas, per doz. ... 9 0-1 \\
\hline \multicolumn{2}{|l|}{} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} \\
\hline & \\
\hline - dessert, in ra- & Pears, Caleb \\
\hline & \\
\hline  & Pif sieve \(\ldots\) \\
\hline Damsons, halt sieve 10 & Duchess, do. \\
\hline \multicolumn{2}{|l|}{Figa, per dozon .o. 9-10 Pine-spplees S} \\
\hline Grapem, & \\
\hline black, Engliph, 16, 13-16 & Prunee, half \\
\hline - 2ndqualits... 0 6-1 & Walnuts, best \\
\hline Musate … 10- & dlea.bu \\
\hline Des, Guerneey, Ib. 00-09 & - French Gre- 0 \\
\hline Melons, ench ... .os 1 0-20 & \\
\hline
\end{tabular}



Potatos.
Markete during the past week show a tendency to harden, and prioss inclined to adrance, eapecially for best mamples. J. B. Thomas.

\section*{SEEDS}

Lonpo : October 16.-Memers. John shaw \&one, Seed Merchants, of Great Maze Pond, Borough, London, S.B. report a more hopefal feeling. Aleyke and White are both better. There is no chango in either Red or Trefoil. For nitered. Soed Rys coatinues exceedingli ofbeap. Righer quota-
tions are cabled for Canary-seod; the new Turkish sood, just landed, shows eatisfactory quality. Hemp-seed is dall. For Poss and Haricots there is a brisk sale at the late adravce, The new Brown Mustard crop in Lincolashire proves shorter than last scaeon's. Rapeseed is steady. The Byard of Trade Returns give the imports of Olover and Grasesesde into the United Kingdom for the first nine monthe of the year an cwta., 287,480, value 2639,724 ; as against ewt., 224,575, value ع557.492 for the corresponding period of 1894.

\section*{FRUITS AND VEGETABLES.}

Borovat : Oct. 15.-Quotations:-Cabbiges, 18. 6d. to 28.6d, per tally : Marrowe, 2s, to 2f. 6d. do. ; Unions, 3s. to 4s por bag; Turnipe, 2s. 6d. to 3s. per dozen banohes; Carrota 1s. \(9 d_{0}\) to 2s. 6d. do.; Spinach, 2 s , to 2 s . ©d. per bushel;
*, 2s. to 4s. : Pears, 3s. to 78, per bashol.
8ptre F.DB : Oct. 13.-Quotations:-8prouts, 2s, 6d, to 38. per hall. ": Greens. 2s, to 2s. 6 d . per dozea bunches : Collards, 28.64 . \({ }^{33}\). per cally; Caulifowers, 68 , to 108 per tally (best) ; do, seconds, 3 s , to 48. do. : Turnips, 1 s .68 d 28. per dozen bunches; Carrots, 18. 9 d . to 28. do.; 8carlot Beans, 18 . to 1 s .3 d . per bushel; Onions, \(28.6 d\). to 3 s . per Cord Suffield, 3s. to 48. do. ; do., Golden Knobs, 3s. 8d. to 4s.

 to \(28,6 d\). per half-sieve ;
Herbs, 1s, \(8 d\), to \(2 s\). do.
Stratrord, Oct. 15. - Fair supply of all kinds of frait and regetables, and rather becter trade, except for Potatos, which was swoak trade. Quatations:-Onbbages, 2s. 8d. to 5s. pe tally; Savoys, 4s. to bs . do. ; Greens. 1s. Bd. to 1s. 9 d. . pe dozen; Cauliflowers, 1s, to iso 3 d . per dozen: do., 4 s . to bs . per tally: Scotch Kale, 1s. to 18. 34 . per sieve; Marrows Vegetable, 2s. to \(2 s .6 d\). per tally; Pears, English, \(3 s\), to \(4 s\) per flat: Damsons, 1s.9a. to 2s, per half-fist: Plums, 2s, to 2s. odo per sieve : Tomatos, Kagliah, 2s. 8d, to \(2 s 9 \mathrm{~d}\). per peck Uucumbers, frame, 18. to 18, Qd. per dozen; Beans, Scarlet
 root, 28 o to 28 . \(8 d\). per dozen bunches; C'elery, 88 s. to 98, per ozen rolls; Horseradish, ls, to Js, \(2 d\), per bundle ; Parsley, 18. to 1s. \(6 d\). per dozen bunches: Turnips, \(1 \mathrm{~s} .3 d^{2}\). to 1 s . \(6 d\). per dozen bunches; Carrots, household, 24s, to 3 .s. per ton. per cattle-feeding. 20s. to 8 Jg , do. Mangels, 133. to 185 , do Swedes, 20s, to 288. do. ; Oaions, Ghent, 28. 9 d . to 3e. per bag Dutch do., 2s. td. to 2s. \(9 d\). do. ; Borde sum Port., 4s. bid. to 5 s . Der case ; Apples, English coolers, 2s. to 38 s. per bushel: do. dessert, 2s. 6d, to 48. per sieve

Farrmadon: Oct. 12.-Qnotations:-Cabbages, Collards 38. per tally ;'Sprouth, 28. 6d. par half-bushel; Spinach, 1s. 6 d per buehel; Cauliflowerr, 2s. par dozen; Celery, 1s. per roll eetroot. 2s. od per bushel: Paranips, 2s, 6d, to 3s, per tall. Beetroot. 2s, 6d, per bushel; Parnijps, 2s. 6d, to 3s. per tally Bens, 28. per bushel; Horweradish. 1s. par bundie; Onions, \(3 s_{\text {. per bag; Marrows, is. per dozen; Walnute, } 14 s, \text { per bag }}\) Apples, large cooking, 3 s . 6d. per bushel; Ribatons, 5s. 6d. per bushel: Gravenstein, 148. per barrel ; Pear Marie Louise, 8s per bushel; Melons, 14s. per case of 21: Grapes, English, 1s. 3 d . per 1 b. ; Almeirs, \(12 \mathrm{~s}, 6 \mathrm{~d}\). per barrel ; Listoos, do.; 11s. do. white; case of Naples Lemons, 45s. to 50 s . ; do. boxes. 5s, 3d.: English Tomatos, 4s. per 12 lb

\section*{POTATOS.}

Bonougle : Ostober 15.-Prices here ranged from 50s. to 80s. per ton.

SpITALFIELDS: October 15.-Quotations:-Magnums, 45s to 55s.; Main Crop, Kidneys, 50 s, to \(60 \mathrm{~s} . ;\) Sutton's Abund ance, 60 s . to 80 s ; Imperators, 45 s , to 60 s . ; Bruces, 50 s . to 60s. ; Fidler's Colossal, 508. to 70 s. per ton.

GTRatTORD, Oet. 15.-Quotations:-Bruces, Darl woil, 32s 6d. to 40 s.: light do., 45 s , to 65 s : R Reading Giants, 40 s . to 45 s. Snowdrope, 50s. to 60 s ; Hebrons, 55s. to 65s.; Sutton'd Regeats, 50 s. to 60s. per ton.

Farrivadoy: Oct. 17.-Quotations: Jesnuie Deans, 75s. to 80 s : : Sutton's Abandance, 65s. to 75s.; White Hebrons, 70 s to 858. ; Maincrop, 75s. to \(85 \mathrm{s}\). ; Magnumos, 45s. to 55s. pe ton.

London Averuans : Oc!. 16.-Regeats, 60s. to 80s. ; Early Rose, 50 s , to 60 s ; Febroms, 60 s , to 80 s . F Puritans, 60s, to 70 s .
 80s. to 100 s . per ton.

\section*{HAX}

Averages.-The following are the prions at the principal metropolitan markets during the pat week:-Clover, best, 80 s . to 105 s : ; do., inferior, 50 s . to 70 s . hay, best, 60 s . to 90 s : do, inforior, 368 . to 60 s . ; mixture, 708. to \(87 \mathrm{~s} .8 d\); and Straw, 20s. to 30s. per lond.

\section*{CORN}

Averages, - Official etatement of the arerage prices of British Corn, imperisl measure (qro), for the weol onding Octobst 12, and for the correspoading Feek in lat jear: -1895 : Octabest 12, 21. 8 d ; Barley, 25s. 7d.; Oats, 189. 4d. 1894: Whent, 17s. 1 d : Bariey, 235. 101. Onts, 13s. हd.

\section*{Variorum.}

Engligh Wheat and a National loaf.In reference to the idea recontly suggented tbat, in order to revive the Wheat-growing indutry in this country, we should have a " national loaf," that is a loaf made excluaively of Eoglish Whent, and nold at a penay a quartern more than other bread, the Field eays the aggestion is "groteaque, and can only delay attention to matters which might bo helpfal to Wheat growers. If Eoglith Wheat-loaves were firat quality we might see a apecial market eatablished for them. Engliah Wheat doen not make the beat flour. It is not a good absorbent at dough making. It does not give a large yield of bread. It looks very white as flour, but gives a less attractive looking losf. It is a sweet, soft bread, apecially fitted for cakes and biacaits. In gluten Engliah Wheat is by no mean ricb. The bent bread is that which is made from a mixture of Eaglish and foreign Wheat, and any attempt to parvey a loaf as English, Ratsian, Indian, or American wuuld be a step in a retrograde direction.

\section*{ENQUIRY}

\section*{He that questioneth much shall Learn mueh "-Bicom}

Fruit Fabming. etc, in South Africa.-A correspondent, "H. R. ' T ," is desirous of looting up the question of fruit farming and cognate enterprises in South Africa, and would be glad if some of our readers having accquintance with that colony would kindly furnish him with reliable data. He has heard that a company has been formed "to found fresh fruit farms," called the Cape Oichard Company. He also requirea the address of an agency in this country for the sale of Cape products. If our correspondent mean fruit product from the New Company' Orchards, nome jeara must neceanarily elapse before he may require an agent for the ale of the fruit therefrom.

- Owing to the large increase in our circulation, we are under the nocasslty of going to press some hours earlier. Our constributors wiil kindly aid us by sending their communioations as early in the woserk as poosibles Communications should rench
Belladonma Lilies and Vallotas: W. S. When purchaniog the bulbs of the Belledonna Lily in Auguat and September, the flower-spike should be prominent. They will expand perfectly if they are potted in any kind of moist material, although if they are to be kept for the purpose of planting out on \& warm border close to a wall where the young brood will bloom beantifully if left for years undisturbed, and merely protected by a covering of leave:, or by having a handlight put over the clump, they thould be potted in rich eandy losm, three bulbe in an 8 or 10 inch pot, with the swelling part of the balon just beneath the surface of the mould. If you do not ask for bulbe showing for flower, the dealer, thinking it doen not matter, will sell to you balbs probably not likely to flower. See also p. 454 in this isucue The Vallots is usually bought in the autumn months and potted up, four or five balbs in an 8 -inch pot, and grown on for flowering the following anmmer and autumn, it being necessary in thin case that it should be well eutablished before flowering; in fact, it resents root dietarbance, and the potfuls of bulbs are bent when merely topdrened in the epring, or repotted bodily when this bas become necessary by the crowded atate of the belts.
Booss: A. B. C. The Garden Annual. 37. Southampton Sireet, Covent Garden, W.C. Chrysamthemums and their Culture, 171, Floet Street, EC. and of the author, Mr. Molyneax, S wanmore Park Gardens, Biehops Waltham.
Errata: Top line of col. 3, p. 399, scale on Carrote ahould be scab.-Mr. Charles Slocombe. We were in error in apposing Mr. Charle Slocombe, whote death wo recently annoanced, to bave been the artist who occasionally contributed illustrations
to the Gardeners' Magazinc. These are the work of Mr. Alfred Slocombe, who in atill happily among 73.
Flax Culture: Enquirer. It is atill caltivated in lreland for manalacturing parpones, bat in not such large quantities as formerly, although the maritime climate of that conntry io well adapted to the needs of the plant. But, as in many other production which we are an well able to raise as the foreigner, we go abroad for the greater part of our suppliew, and the farmer wrings his hands and laments his lact of pence.
Hows in Peach Walls: F. Mouland. Portland cement is a good material for topping the nailholes; and to give a uniform appearance to the face of the wall it may be coated with a thin coating of coment, which may be put on with a whitewash brash, or, if freed from all grit, with the garden engine.
Issects: A. Laker. We do not recognise the caterpillar; try and breed the moth. Thorough fumigation two or three times repeated, might be efficacious. - Armitage Bros. The grubs were thone of Dipteroun insects, apparently of two kinds, bat it is not possible to state the apecies with certainty. The earth should be treated with some insecticide. R. McL.

Likak in Pipm: Vindex. Cat out the packing of cement, and make a new joint with molten lead, or iron-filinge and tal-ammoniac.
Manuschipt for Publication: A. B. C. We cannot pabliah any communication froma anknown correspondent unless it be accompanied with foll name and address; not necesarily for anpending to the article, but as an earnest of bona fides.
*. Plarts, Fruits, exo. to bie Nained.-The applications to name fowers, and especially fruit, are so numerous at this season as suverely to tax our resources. They entaul readers have no idea. We are always willing to oblige our readers have no idea. We are always willing to obige our Chronicle is our business, to which everything else must give woay. Correspondents ars respsetfuly requested to observe the sule that not more than six specimens can be dealt woith at a time. If more are sent, it woor d be a graceful act on the part of the sender, to sind also a small contribuision to the Gardeners Opphan fiond. Correspondente sending plants or fruits to be named, or asking questions demanding time and research for their solution, must not expects to obtain an answoer to their onquiriss the the current week. Specimens should be good ones, aies carnot as a rule be named
Namgs of Fruit: R. V. Sherring. Pear Doyendé du Comice-G. S. 1, Marie Louise; 2. Bonrré Charneusen: 3. Seckle; 4 Col. Vaughan; 5, Court of Wick.-A. G. T. 1, Williama' Bon Chiesien; 2, Ne Pian Mearis; 3, Mario Lonise. Aople: 1, Beanty of Kent; 2, Golden Reinette; 3 Minchall Crab; 4. Baxter's Pearmain.-F. F. P. 1, Golden Noble; 2, Bachelier; 3, 4, Blenheim Orange; 5, not known ; 6 Jersey Gratioli ; 7, Beurré Clairgeau. -T. S. 10, 27,28 , Damelow's Seedling; 25, Col. Vaughan; 42, Dutch Mignonne; 52, Blenheim Urange. - D. McD. 1, Minchall Crab; 2, Stirling Castle; 6, Lanes' Prolific; the others too much braised to determine.-Carlton. 1, Qaeen Caroline; 2, King of the Pipoint; 3, Mammoth; 4, Cox's Orange Pippin. Paar, Beuryé d'Amanlie. [Contribation to Gardeners' O phan Fand has been sent to the Seeretary.] - \(H\). Howard, Purfleet. 1, Alfriston; 2, Frogmore Prolific ; 3, too amall to determine.-J. W., Pleass. 1, Nonsuch; 2, Alfriston; 3, Beauty of Kent; 4, Hawthnrnden ; 5, B \(\mathbf{r a r r e}\) de Caplaumont; 6. Wintar Nelis; 7, Old Craranae.-G. A. J. 1, Bixter's Pearmain; 2 Golden Noble; 3, Gloria Mandi ; 4, Hormead Pear-main.-J. Kent. 1, Reinette du Canada; 2 Cellini Pippin; 3, not recognised; 4, Northern Greening 5, Cox's Orange Pippin; 6, Cellini Pıppin. -Biddies \& Co. 19, Jersey Gratioli ; 21, Marfitt' Seedling; 20, Cox's Orange Pippin; 23, Tower of Glamis; 30. Golden Noble.J. W. M. 1, Court Pendu Plat; 2. Neø Hawthornden; 3. Northern Greening; 4, nos recognieed; 5, Rainette du Canada; 6, Tower of Glamis; 7, Lane' Prince Albert; 8, French Crab; 9, Wareham Rasset; 10, Bedfordshire Fonndling.-J. W. Suaffield. 1, \(1 \frac{1}{2}\), resemble Keswici Codlin grown in a cold locality, but they are Gridently not that variety - they may be Lurd Wronvenor. 2, Searlet Nonpareil; 3, Golden Winter Pearmain; 4, Autama Bergamot; [Nover send plantu and fruit Bonne d'Ez6e. kindly send frembepecimens of the thrub, Lily, and grast.-C. G. Woodrofos 1, 2, 3, Blenheim Ofange;

4, 5, 6, 7, 8, 9, 10, 12. Cox's Ocange Pippin, pxcellent apecimens; 11, Ribston Pippin: 13, Kxcerry Pippin ; 14, Nön Hawthornden; 15, DameKerry Pippin; 14, Now, probably small fruit of Bramley'a Seedling.
Names of Plasts: Correspondents not answered in this issue are requested to consult the next number.bago Larpentæ. - Ignorant. 1, Malope trifida 2, Hibiscua syriacun, commonly called Althæa fratex: 3, Sedum spectabile; 4, Malope trifida, white var. - W. M. Houlletia Brockleharstiana. - W. J. B. Phytolacea decandra. -J. P. Tropæolam specionno.-E. W. 1, Sidum tortuonum (Bot. Mag., t. 296) var. variegatum; 2, Diplacu glatinosut; 3, Fachaia procumbens; 4 , Selaginella viticulons: 5, Ealalia japonica variegata; 6. Agathea coolentis.- \(J . R\). 1, Cattleya Walkerianà 2, Oncidium apilopterum; 3, Oncidiam divaricatum.
Prar: Mells Rectory. A seedling probably of nome garden variety of Pear. Can you send aome fruita when ripe?

Potatos Serding: E. H. O. Many varietier do not bear flowers, or they rarely do so, and thone which flower do not always "set" the flower". Caltivation has a tendency to suppress the flowers, and prevent their fertilisation! and the longer any variety has been in cultivation, the fower the blossome, or none at all. In the Ashleaf varieties, the ability to flower neem: to be quite lout.
Rock Plants: W. T. H. Omphalodes Laciliz, Globularias, and Campanula Zoysii and C. Waldsteiniana, by division; Edrianthi by seeds.
Rose Difficult to Staike: Miss Armstrong. The specien is Rona Branonis. The striking of cattinge would be aucceasfal if half-ripened ahoota with a heel were taken in July, and strack in a close frame or hand-light, on bottom-hest of \(75^{\circ}\) to \(80^{\circ}\). The leafleta ahould have the central one cut off, and the leaf at the base, if any, hould remain on the cutting. Pat one catting in the middle of a ch or 3 inch pot, in sandy loam, presed firmly, and then well water the cattings. No more water is likely to be needed if the frame be well shaded during the anny hours before rooting has taken place. Take out all pata containing rooted cattings, and place in a leat close frame, gradually inuring them to full exposure. The above method is applicable to all Rose difficult to root as cuttings. Less troublesome methods are, to layer either the tips of the shoots-as the firat foot of growth, or lay whole ahoote on the soil, pegging them down at intervals of a foot, and patting a little soil over them, at the point where the peg. are inserted. Maréchal Niel Rose can be readily increased by this method. It takes a whole neason.

Staphylea prnnata: W. D. H. It in called Job'e Tearn, Bladder Nat, and St. Anthony's Nat. Loudon, quoting Haller, remarks in Arboretum et Fruticetum Britannicum, "that the kernela tante like those of Pistacia, and are eaten in Germany by children, and this appeara to have been formerly the cave in England, for Gerard asya tbe kernels, though sweet at first, are succ jeded by a nauseons tante, and finally they act an an emetic." The flowerm contain mach honey, and are much visited by been. The plant is a native of Earope, and is not indigenous in this country, but it is now common.
Walnuts to Kegp Fresh for Four Montes: F. M. C. Oily seeds anch as thene cannot be kept in a good condition for eating, unless the air be kept from them, the moisture contained in the nut soon evaporating, and the oily constituent of the kernel becoming rancid. Choose a box or barrel of a size saitable to the quantity of nuta to be stored, and having at hand nome not very dry and or charcoal-dast, proceed to lay them in the receptacle in alternate layer of and, \&ce, and atore in a cool place.

Commulications Received.-W. M.-A. H.-R. Y.-J.C.s.

 -W. K. J. A, - B, (your communication han beon for whrded to the secretary of the Boyal Eorticultural society).
Photog Apis, Bdorrved wita Thuses. - H. M. To, Cam

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LADY GARDENER. - Scotch-trained and

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f 10.000 A YEAR.-How one might play inrome! What comfort and felief one could bring to the poor and to the suffering. And yet, even without money, one coan do good if one has the will. If I see a fellow-creature suffering from ague, fevers, or disorders of the stomach; or from gout, of walth in order to show him the was to health. If I moint of watich in order to show him the way to health. If I point
out to him the wonderful efficacy of HULLOW AY: PILLA and OINTMENT, I have perchance done noore good by that wealth of all the Rothechilde.

BY SPECIAL APPOINTMENT TO H.R.H. THE PRINCE OF WALES.

\section*{MAOKENZIE \& MONOUR, HOTHOUSE BUILDERS \& HEATING ENGINEERS.}

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}

\author{
EDINBURGH-Upper Grove Place.
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Imperishable Teak.Wood Houses a Specialty.
PAVILIONS, SUMMER-HOUSES, and all other kinds of WOOD BUILDINGS.
among the contrayts being executed by us at prejent are the following:For HER MAJESTY THE QUEEN-Palm House, Rose House, \&c., at Windsor Castle Gardens.
H.R.H. THE PRINCE OF WALES-Range of Fruit Houses, 300 feet long, at Sandringham.
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THREE MINUTES' WALK FROM SEVEN SISTERS STATION, GREAT EASTERN RAILWAY.


\author{
No. 461.-VoL. XVIII. \(\left\{\begin{array}{c}\text { Trizd } \\ \text { Srbire }\end{array}\right\}\)
}

SATURDAY, OCTOBER 26, 1895.

\author{
\(\{\) Regt. as \(=\) Nownpaperi. Price 3d.
}

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Applee, prices of. Barion. Mr. A. F., Da tional testimonial to.. Benefit and Provideut Association, annual dinner of Books. notices of Cattleya candida Chrysapthemum Bou'e d'Ur'95..
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Bruwels Orchidéanne Vegetable foode and drin Week's work, theFruits Garder glase Fruits under glass Kardy fruit garjen Kitchen garden, the rlants under glass

\section*{ILLUBTRATIONB.}

A-ter Field at Orpington. Kent
Cattleya labiata, a variegated petal of a
Chryanthemum, Boule d'Or 95 9 ... "... Jamaica. View of the Blue Turf-cuttigg implement, a

\section*{NOTICE TO ADVERTISERS.}

In consequence of the alteration of the hour of going to Press, consequent on the large increase in the circulation, at is imperative that all Copy for Advertisements should be received BY FIRST POST THURSDAY MORNING at the latest.

\section*{Chryanthemums}
H. CANNELL AND SONS, whose Collection and moet intercetion is in be the largestid bloom, a numpletest, bert kept, new shapes and colours of great promise, and of the Swanley Dwarf Type, which are considered an acquisition. All are nvited to bee our magnificent house, 160 wide-a glow of colour

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50,000
EUON YMUS, Green and Golden, all splendid buehy plants.-GBEEN: 12 in to 15 in , at 30 s . per \(100 ; 15 \mathrm{in}\). to 18 in ., at 40 s . per 100 18 in . to 21 in ., at 55 s . per 100; 21 in , to 24 in ., at 76s. per 100 25 in. to 47 in. at special prices. OHDEN. Jin. to 12 inor at 3s, to 8s. par dovan. Onil with dastone, Brighton.
HOR SALE, Cheap, HOLLIES, YEWS If THUYA COMPACTA and BEEOH, 3 to 4 feet Standard Trees, POPLARS, HURSE-CBRST

Apply, THOS. HUNTER, Nureeryman, Barnard Cartle.
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GUTTON AND SONS, THE RUYAL
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II
R. ROPERT SYDENHAN'S BULBS are sent to nearly every town in the United Kingdom, and re acknowledged by all to be the beat and finest in the
King icm. Emperor Narcisaus, \(5 s\). Gd. per dozen. 40 . per 1100
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TIDY'S Patent CUP and TUBE is the Best Send for Circular and Sample, free \(1 s .3 d\).
Water raised with the bloom W. E. TIDY, Brock hampton Nureeries, Havant
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NEW SPINELESS GOOSEBERRIES. Coloured Plate. Price List, History, Copy of Testimonials. \&c., from W. RUSHFORTH, Nursery Mount, Leeda; or
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CUTHBERT'S SPÉCIALITE MUSHROOM SPAWN. Always alike; most productive. Hundred of testimonials. Per bushel, \(5 s\).
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W ANTED, a few well-rooted Plants, 5 to 6 ft . \(V\) hich, for making a bedge.
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IINDEN'S ORCHIDS.-Sales by Auction, in London, are held on the First and Third Thureder in each Month, at Mr. J. C. STEVENS' Great Rooms, 33,
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CMILAX ASPARAGOIDES.-Strong young stuff in \(80^{\circ}\) 's, ready for potting on or planting. All staked 16s. per 100. Free on rail. Cash with order.

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J. WHEELER \& SUN'S AUTUMNCATALOGUE of Frait Trees. Roses, Porest Trees. Fivergreens, information as to the moot profitable varieties to grow. and the beat time to plant them, fo warded, post-free, ou application.
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 \({ }_{\text {per }} 100\). LILIUM HARRISII, \(3 s .6 d\). and 8 s. \(6 d\). per dozen Orders abjve 10s., carriage paid.
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ARANDE MONARQUE NARCISSUS, 30s.
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ENKY RIDES, Salmaman, Central Highoert Market Prioes. Prompt canh
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J. WEEKS \& CO., Hortioultural Bailder J. to Her Majesty. H.R.H. the Prince of Wales, H.M Government, Admirally Dept.o War Dept., Royal Hort. Soc. Royal Botanic soc., Parks and Public Buildinga, Patentees of


\section*{FORTHCOMING SALES By messss. PROTHEROE \& MORRIS,}

\section*{}

\author{
Two Days' Sale,-Tottenham, N \\ Adjoining the Tottenham Hale Station, Great Esstern Main Line. \\ MP. Ware' OREAT ANNUAL SALE of immense quantities of
} NURSERY STOCK.
MESSRS. PROTHEROE and MORRIS will SELL by AUCTION, on the Premises, The Hale Farm riea, Tottenham, No, on TUE PDAY and WEDNESDAY NEXT, October 29 and 20,1895 , at \(110^{\circ}\) Clock precisely each day, in consequence of the large number of Lots.

ROSEI IN POTS, EXTRA STRONG, of the best sorts. 10 CARNATIONS and PICOTEEES, - Named sorts in pots, new and old kinds.
TREE CARNATIONS in variety, fine plants in 43-pots. OO DOUBLE and SINGLE TUBEROUS - ROOTED ond A special feature the this Nursery Theye will bs cif \(\begin{aligned} & \text { red } \\ & \text { both in mixture and solected to colour. The tubes }\end{aligned}\) are remarkably strong and fine, not a bad variety will be fouvd amongst them.
50,00 CLEMATIS and AMPELOPSI, and other Climbers; 100,00 SEAKALE and ASPABAOUS, extra strong forcing stuff, BJth these are grown by Mr. Ware in enarcous, quantities at Tottenham and elsewhere. The season
has suited the growth of both remarkably well, and Mr. Ware etates that he never had them so fine.
23,000 HOME-GROWN LILIES. Of these, Mr. Ware holds one of the large .t collections in the trade. All the Bulby
offored will be of gord size, perfectly healthy, and such as cannored will to give satisfaction. 200,000 BERLIN CROWNS LILY OF THE VALLERY.-These are exceptionally fine, being of the true Berlin or best FOBCING PLANTS and BULBS, in endless variety. 200.000 herbaceous plants and misoellaneous BOLTHOS
HOLLYHOCKS, selected to colour. CGRTSTMIS ROSES, Double and Single PYREIHRUMY, PINKS, DELPHINIUMB, POTENTILLAB, PHLOX, PEONIES, Also thousands of other PLANTS, TREES, and SHRUBS, in great rariety, incinding a large quantity of Pormeling Screens, broad-leared PRIVET, fine butby atuff, \&c.
The Etuck may be viewed any day prior to the Sale. Catalogu emay be had on the Premises ; and of the Auctioneers. Land and Eatate agents, and Valuere, 67 and 38 , Cheapaide, London, E.C.; and Leytonstone.

\section*{Wolring, surrey.-Without Reserve}

\section*{M} ESSRS. PROTHEROE AND MORRIS are pelled to effect an immeditte clearance of a large portion of
grouad, to SELL by AUCTION, on the Premiser, the Horsell Nurseries, Woking, about a mile from Woking Billway
Station ou TUE SDAY NEXT, Oc at \(120^{\circ}\) Clock precisely each day, several 4 cres of weil grown NURSERY STOCK, which has been carefully prepare 1 for remuval, comprising a largo quantity of Border Shrubs, in
great wariety; \(30,00 j\) Fruit ireos, consisting of Standard great rariety; 3, i, DUJ Fruit I'reos, contisting of Standard, Pyramid, and Dwarf-trained Apples, Pears, Plums, Peaches, Piuus, Birch, Quick, \&c.; 5000 Standards, Hal'-standards, ani Dwarf Roses, in all the best varieties; 3000 Rotting shrubs, 2000 Climbars, 5000 Standard Ornamental and Flowering Trees: 1u,000 Fruit and Manetti Stocks, Rhododendrons, Hardy Azaleas, and other Stock.
May be viewed any day prior to the Sale. Catalogues may


\section*{Maldenhead.}

SiLe of well-grown ornamental specimen shbubs and TREES, Standard Pyramid and Dwarf-trained FBUIT TRGES, RUSES, HERBACEOUS PLANTS, \&o

IESSPS. PROTHEROE AND MORRIS will SRLL the above by AUCTION on the premises, The Floral Nurseries, Castle Hill, Maidenhead, one mile from at half-past 11 o'Clock, by order of Mr. B. Owen.
May be rie wed. Catalogues had on the premises, and of the
Auctioneers, 67 and 68 , Cheapside, London. E.C.

\section*{Woking, Eurrey.}

TERER DAYS' SALE of valuable and thriving MURSERY BTOCK, which has been carefully preparad for removal. By order of Mr. R. Collyer.

MESSRS, PROTHEROE AND MORRIS will Lane Yurseries. Wokinan, on the Premiees, The Cart House 000 English Yewe, 4 to 5 foet, several hundred of Cupres:Thujas, and others, for hedgea, screens, \&ec; 100 splendia Spec men Gold and Silver Hallies, with a to 5 feet stems, and growth of from 15 to 25 Years; 30co Common Green Hollies. Ito 8 feet; Hybrid and Ponticum Rhododendrons, well sot with buds; thousands of Standard Ornamental Trees for Shrubs, for potting and growing on ; 1000 suantities of emall and Hall strudas nor pootting and growing on; 1000 Standard and Ealf: Plums, most of them Fruit-bearing Treen; Flowerinelos and
 Stockcheon will be provided to intending parchasarn. The Ontilogone may be obtainod on the Premion, sad of the

\section*{Wickford, Essex}

FRERHOLD LAND, 2 to 40 acre Lota, for Market Gardening, Fruit Growing, and Resale in Plots; almost adjoining station on direct Sonthend line.

MESSSRS. PROTHEROE AND MORRIS will SELL by AUCTION, at the Mart, Tokenhouss Yard,
 Lots, valuable FREEHOLD ESTATES, of about 229 acres, , \(u\) -
divided into lots of from 2 to 40 acres, and known as the Beeches and Bridge House Farm, possessing extensive frontagee to the main London and parish roads, offering numerous
fine sites for development into Building Plots, several enclosures of fine Pasture Land, two capital Residences, with gardens, two Cottages, numerous Buildings, and enclosures of good
Arable Land suitable for Marlet Gardening, Fruit Growing, Arable Land suitable
Poultry Farms, \&c.
May be viewed any day prior to the Sale. Particulars and plans may be had at the Custle Hotel, Wickford; of Messra. GODWIN \(\triangle N D\) SON, Solicitors, 51 and 52. Wool Exchange, Coleman Street, E.C. ; and of the Auctioneers and Land Agents, 67. Cheapside, London, E.C

\section*{Brentfi rd, Middlesex.}

Valuab'e FREEHOLD MARKET NURSERY, situate in a splendid Fruit-growing district, about 10 miles. from
Covent Garden Market. For Sale with possession.

\(\mathrm{M}^{\mathrm{P}}\)ESSRS. PROTHEROE and MORRIS will SELL by ATICTION, at the Mart, Tokenhouse Yard, Frehold Property known as the EALING PARK NURSERY, Windmill Road, Brentford, comprising 28 Greenhouses, containing a total superficial area of over 24,000 feet, the whole heated by more than 5803 feet of hotwater-piping, with 6
boilers and stoteholes; Stabling and Sheds; also, about 1800 boilers and stokeholes: Stabling and Sheds; also, about 1800
feet-run of Brick-wall for Fruit-culture; the entire property comprising an area of about la. 0r. 3obp.
Particulars and conditions of Sale may be had at the Mart ; of Messrs. RUSTON, CLARK AND RUSTON, Solicitors, 29 EResex Street Strand. W.C., and at Brentford; and of the Auctioneers
and Valuers, 67 and 68 , Cheapside, London, E.C.

\section*{Lee, S.E.-Without Reserve}

IMPORTANT SALE of FRUIT and ORNAMENTAL
M ESSRS. PROTHEROE AND MORRIS will SRLL by AUCTION, on the Premises. The Burnt Ash
Nurseries, Kee. Kent, S.E. close to the Lee Station, Hill Nurseries, Lee, Kent, S.E. close to the Lee Station,
8. E. Ry, on TUESDAY, November 5, 189, at 12 o'Clock, by order of Mesars. B. Maller \& Sons, 10,000 FRUIT and ORNA MENTAL TREEB, fine clean-grown stuff, in great variety and
capitai condi ion for removal, comprising 20000 Stan ard Apples. in all the bast kinds: z(1)0 Pyramid and Dwarfand Nectarines; 500 fine Limes. \& to 10 feet; 500 Double
Scarlet and other Thorne, 300 Double Cherries, 500 Lilacs Scarlet and other Thorne, 300 Double Cherries, 500 Lilacs,
Desiduous Shrubs in variety, Berberie, \(1 \& 00\) Standard aad Deviduous Shrubs in variety, Be.
Dwarł Ro es of the finest sorts, \&
May be viewed any day prior to the Sale。Catqlogues had at the Nurseries, also at the Seed Shop. ©1, High Street, Lewisham; an
London, E.C.

\section*{Toddington, near Winchcombe, Gloucestershire.}

Great sale of FRUIT TREES, by order of the Toddington Orchard Company, limited, in liquidation

\(\mathrm{M}^{1}\)ESSRS. PROTHEROE and MORRIS will 8ELL by AUCTION on the Premises, The Nureeries, Toddington, Winchcombe, Gloucestershire, seven miles from
Asbchurch Station (Midland Railway, and eight from Eveeham Station (Midland and \(\boldsymbol{G} . \boldsymbol{W}, H\) ), on . November 6, 1893 , at \(120^{\circ} \mathrm{Clock}\) precisely, in consequence of
the large number of lots, an immense quantity ou FRUIT the larme number of lots, an immense quantity or FRUIT sisting of Victorias, La Déiicieuse, Early Proliffe, Pond's Seeding, and other leading sorts; 300 Pyrami 1 Pears on Quince, 1000 Farleigh Damsons: Apples: 40,000 Black Prolific: 30,0000 Red CURRANIS, Raby Castle Ked Dutch Red Grape, and Red Scotch; 4000 GOOSEBERRTRS, Orown Rob, Lancashire Lad, Warrington, and others ; 4000 Cob Nuts. 40,000 FOREST TREES,

nuts; 300 Limes; 250 ABUM LILIRS, in pots. de.
The Stock may be viewed any day (Sundays exceptod) prior to the Sale. Catalogues may be had on the Premiser, of
Mesers. HARVEY, PGGEN, AND CO., Chartered Accountants, Basing House, Basinghall Street, London, E.O., and Kiddeminster, and of the Auctioneers and Faluers, 87 and 68 ,

\section*{DUTCH BULBS.}

\section*{GREAT UNRESERVED SALES.}

MESSRS. PROTHEROE AND MORRIS will 68, Cheapside, London, C. Their Central sale Rooms, 67 harge consignmenta of NAMED BYACINTHS, TULIPS, OBOCUS, NARCISAUS, and other BULBB from Eolland, lotted to suit the Trade and Privato Buyern.
DROPS, RC. On riew morning of Sale, and Catalogues had.

\section*{Normandy, near Gulldford, Surrey,} The NORMANDY MANOR ESTATE, adjoining the

MESSRS. PROTHEROE AND MORRIS (i conjunction with MESSRS. MUMFORD AMD Boin
 of th
Lot.

\section*{Rich Herby Meadows \\ Fasture Ladd \({ }^{\text {Fertile Arable Lad }}\) \\ Fruit Farm \\ Productive Farm Estate, frontage 1180 foet \\ Cry Valuable Fruit Farm and Nursery, \\ and Orehard Land \\ Cleygate Farm \\ 14. Fruit and Building Lavds}

Ditto ditto
of Sale, may be had on the premises, at the place on sition principal Inns in Guildford, of Mesars. Parrotr, solicitm
 Auctioneers and Surveyors, Brill. Bucks, and Thame, 1 man: and of Mesers. PROTHEROE AND MORRIS, Auctionesm ou
Land Agents, 67 and 63 . Cheapside. London, E C.

M

\section*{Monday and Thursday Next.} ESSRS. PROTHEROE AND MORRIS ill SELLL by AUCTION at their Central Sale Room, \({ }^{\text {B }}\) MONDAY NEXT, October 28.-250 Azalea indica, 241 mollis, 50 Rhododendrons, 24 Laureatinus, 50 lots of chrion Stove and Greenhouse Ferns and others, several hudred tos dard, half-atandard, climbing, and Tea Roses, Clematia, Irim Euonymus, and other shrubs.
TEURSDAY NEXT, October 31.-90 Azaler mollis, OO A. ndica. 60 Dracenas, 36 Aucube japonica. 13 Phonalui Veitchii, Latanias. Arecas, and Coryphas from Belgine On view Morning of Sale, and Catalogues had.

\section*{Monday Next}

A consignment received direct, comprisiag-
300 LILIUM SUPERBUM
209 \% PBILADELPHICOM
1900 CANADENSE
\(\mathrm{M}^{1}\) ESSRS. PROTHEROE AND MORRIS will er 28 . view morning of Sale, and Catalogaes hat.

Wednesday Next.-At \(20^{\prime}\) Clock. 20 Casea lilium harrisi, 7 to 9 inches 20
5 20 in all 750 "'Buibs 9 each containing 600 Minh

MESSRS. PROTHEROE AND MORRIS ill include the
October 30
On view morning of Sale, and Catalogues had.
Friday Next, November 1, 1895
by Order of Messrs. F. Sander \& Co
IMPORTANT SALE of ORCHIDS
a grand new oncidium, Wonderfully Distrac. Very brilliant flowers, similar to, and in ohare like,
loxense: bulbs resembling O. pardinum. Large pridet loxense; bulbs resembling O. pardinum. Larfe aphth
spiker, with numerous branches; flowers magoincent; hat Ium cut straight off, as in Liriodendron; cosour reseolut Masdovalia Veitchii; sepals and petals of a

The remaining plants of the
NEW LARGE WHite bigibbum-Like paftul DENDROBE.
All fine examples, with new grow ths, some showing for flown
Also 122 plants of the very rare
DENDROBIUM SANGUINOLENTUM.
This magnificent Dendrobe is one of the fnest in the goom and we hava much oleasure in offeriag 122 grand planti beautiful bloseoms are produced at the aper of the which continue flowering for years. Sepals and pettia cato fawn colour, tipped with rich deep violet; labllita similar colour.

DENDROBIUM PHALEEORSIS SOERODERIANUK.
100 plants in Bloom and Bud; also 100 Importsoos
Together with 50 grand plants in bing
DENDROBIUM FORMOSUM GIGANTETL, and 50 grand unflowered plants of
DENDROBIUM FINDLAIAXUX, in splendid condition. Every plant will bloom is the 1 HTM (4. Aleo 1003 plants of a type of LEELIA AUTU two years ar Wondiandiana?), or the grand farm, Haol bridge. M ESSRS. PROTHEROE AND MORRIS will SRLL the above by AUCTION, at their can yivi Rooms, \({ }^{\text {No }}\), and 88 , Cheapaider

Oa view morning of Sale, and Catalognow had

\section*{SALES by AUCTION．}

90，000 JAPANESE LILIES．
Immenve Consignment of 28,000 LILIUM AURATU＇M，44，000 LILIUM LONGIPLOBUM， 17.000 LIKIUM SPRCIOBUM， ALBUM，RUCRUM，KRAMERI，and MRLPOMENE，and others．－Preliminary notice．
MESSRS，PROTHEROE AND MORRIS M1 reppectully announce that they have received the BALE．As soon as the steamer arrives，the date will be adver tised，and Messrs．\(P_{0}\) \＆\(M\) ．will in the meantione be gled to receive applieations for Catalogues．The whole of the Bull will bo ofered on one day．

\section*{IMPORTANT \\ SALE OF ORCHIDS}

Chester Park，Fishponds，Bristol． About Half－a－Mile from Fishponds Station（M．R．），and Three Mres from Bristal．
NOVEMBER 6， 1895.
The wel！－known
COLLECTION OF ORCHIDS Formed by the late Jaures Crispin，Eeq．，F．R．H．S TO BE SOLD BY AUCTION， Without the Slightest Hoserve．
II ESSRS．PROTHEROE and MORRIS have received instructions from the Rzecutors of the lato Mr．Jame Crispia to sell by Auction，on the frembe at \(180^{\circ} \mathrm{Clonk}\) precieely，without the least reserve－

The well－known COLLECTION OF OBCEIDS． Compriaing amongst othera ：
Odontogloesum Alexandree，Cypripedium Seedlinga
the very
Pesc itorel exceptionghy fine flow ering planto
Ramossisimum
Polyzadthum
Coromarinm
Rdwardi
On＂cidium macranthum
Lycaste Skinderii ailu
is Fervinii，fino apeciman Royal Hort．Soo
 Rex，floe plant
labiata
gigus Sanderinna
surea，fine plants
plants
plants gran 1 Voxillarinm，larg plants
\(\qquad\) Marrisianum superbum inagre Crispinianum with spotted sepal and petals illowum grandiflorum aure um，grand variety apiculatum，fine variet Draryif microchilum specimen Madame Cappé Kimballianum macropterum Alico Io Grandis
The Collection may be viewed on November 5 ，from 1010 \(40^{\prime}\) Lloct，by Catalogue to be obtained from Mesara．CRISPI AND MONS，Nelson street，Bristol；or of Messrs．YR． For the convenience of Buyers attending from a distance

\section*{CRAND IMPORTATION OF ORCHIDS．}

\section*{1000 SOPHRONITIS GRANDIFLORA，}

500）ONCIDIUN VARICOSUM ROGERSII，
ODONTOGLOSSUM CRISPUM （Pacho type），
WILL BE SOLD AT

\section*{PROTHEROE \＆MORRIS＇AUCTION ROOMS}

67，Cheap：ide，E．C．，on November 8，1895，

\section*{By order of}

FRED HORSMAN \＆CO，COLCHESTER．

\section*{Thuruday Kext}

IMPORTED and ESTABLISHED ORCHIDS

MR．J．C．STEVENS will SELL by AUCTION， at his Graat Rooms，38，King Street，Covent Garden， o＇Clock precisely，valuable IM PORTED ORCHIDS：－
Grand manes of Oncidium tigrinum，\(O\) ，varicosum Rogensii． Catteya Harriense．siecially selected pieces；\＆o．Lhote Cypripediums，including C．Evenor superbum，C．Artharianum， C．Winnianum，and others．The fnest types of Lselis ancepy Sanceriana，L．a．Williamsii，L．a．veutilii，and agrand mass of L．a．Sanderiana superba ；also choice Cattieysa，dc．
ESTABLISEED ORCRIDS from a privato collection． Orchids in Flower and Bud，including pome choioe varietiee， stc．Liliums in variety．Lily of the Valley Orowap spirans，on view morning of sale，axd Citalogues had．

\section*{DUTCH BULBS—DUTCH BULBS．}
salen nearly every day，in Larce and gmall Lots，to aut all Buyers．
MR．J．C．STEVENS will SELL by AUC－ TION，at his Great Roome，38，King Street，Covent Garden，nearly every day at half．paet 120 Clock，first－clas AARCISSUS，and other BULBS arriving daily from well known farme in Holland，in the finest possible condition． On view morning of Sale，and Catalogues had．

\section*{WEDNESDAY NEXT}

\section*{IMPORTANT SALE}

A fine Importation，just received from Holland，of 1000 amall，besutifully－grown
DECORATIVE SHRUBS

Consignment of AZALEAS，DRACAENAS，and a variety of PALMS，from Ghent．
，000 Beat Berlin lily of the valley crowns， just received direct．
100 lote of choice named Standard，Hall－Standard，Dwarf ant Climbing ROSES，from a celebrated prize Grower in Germany：and 200 English－Rrown Dwarf ROSEs to nume，CARNATIONS，aud PRNS．
5.000 SPIRAEAS in variety，from Hol＇and：IRIS KEMK PHERII，D＇ELYTEA SPECTABILE，ROSE，\＆c． Several thousand Early Foreing BULBS from France． LILIUM HARRISI，L．CAvDIDCAM．L UMBELLETUM． MONES，\＆c
a spectal collection of extra fine hyacintes comprising most of the best sorts，specially nelected or Glass and Pot Cuiture．Gram Naw Dich OROCUSES，Fare NABCISSUS，SNOW DROPS，\＆
MR．J．C．STEVENS will SELL the above by 1 AUCTION，at his Great Rooms．88，King Street，Covent past \(120^{\circ}\) Clock precisely．

Oa vie moraing of Sale，and Catalogues had．
Birmingham．
DUTCH BULBE，EYERY THURSDAY，at 11.30 © M．
MESSRS．THOMAS B．JAMES AND CO SELL by AUCTIUN at their \(\mathbb{R}\) oms．Temple Street ingham．immense
CONSIGNMENTS OF BULBS FROM HOLLAND．

\section*{Coventry．}

By order of J．C．Stringer，Ekg，The Elms，Coventry，the \＃hore the fine Collection of OBCHIDA，also th MESSRS．THOMAS B．JAMES AND CO，are DAY，FRIDAY，at Rieven o＇Olook A．M．Auctioneers＇Offices，Temple Street，Birminghaw．

\section*{West Drayton，Middesex．}

Leventh annual sale of nursery fbut stock 1 ESSRS．NORMAN and SON are instracted II by Messpe．Smith \＆Son，to hold the RLEVRNTH ANNTAL SALE Of NURSERY FRUIT STOCK on the Ground． on TUEsDAY and WrDNEs？AY，October 29 and \(30,1895\).
each day at 11 o＇Clock punctually，in consequence of the each day at 11 o＇Clock punctually，in consequence of the
number of Lots，comprising about number of Iots，comprising about
\(30,0^{\circ} 0 \%\) APHLE TREE \({ }^{3}\) ，including Eeveral new kinds，which have not bzen brought before public notice，except at these 30，000 Standard rom and
s000 Standard CHERRY TREES， 3000 PEARS．
100000 CTVRRANTS and \(G O O\) SF BERRIRS，and about
Full grown，and suitable for Forcing and other purposes． ncludidg Linneus．Champagne，Albert，\＆\＆，of which particulars will be given in the Catalogues．
On siew the day prior to the Sale，and Catalogues had of Messp．J．SMITH AND SON，Growers，Sipson，and 448 and
449 Covent Garden Marker，London W．C．and of the 44．Covent Garden Marker，London，W．C．．and of the
Auctioneers，Uxbridge，Middlesex，and Besconsfield．Bucks．

\section*{GREAT SALE BY PRIVATE TREATY}

ORCHIDS in great variety，and in splendid condition，many in flower，and showing for flower．
TEA and OTRER ROSES in pots，in great variery，and in fine atron healuhy planto．
GRAPE VINES in all the leading kinds suit－ able for Fruiting in pots and planting Vineries．
ORNAMENTAL FOLIAGE and Flowering

\section*{Pl nts，in great variety．}

ALL AT GREATLY REDUCED PRICES．
DESCRIPTIVE and PRICED CATALOGUE
Post－free on application to

\section*{JOHN COWAN \＆CO．}

\section*{（LIMITEDD），}

THE VINEYARD and NURSERIES， GARSTON，near LIVERPOOL．

ANTED，to RENT，on lease（not less than W ten yeara，a NURSERY．－－bout 3 ecres cf Ladd，with With no stock，or vory little．Withen 8 ．

W ANTED，to RENT，SMALL NURSERI W．with 300 ft ．to 800 ft，run of Glase ．

CAPITAL NURSERY and GROUND for SALE．Good opportusity for beging er－Letter only，
To Nursergmen and Florists commencing buinaas． HAMPTON－ON－THAMES，on Thr Marlivg 1 PAFK FNTATE，frea from London fogs，a deepp \({ }^{\text {ch }}\)
 for residences，－For full particulars apply to Mr．FREDK．\(G\) ． HUGHES（8urvoyor），the Ketate Ofice，Hampton－on－Thames．
［OR SAILE，a small valuable long leasehold NURSERY，of miles from Covent Garden．Seven large Greenhouses，will－houses，five－roomed Cottage．Low Ground Rent．Lease Pighty－ixa yearr to expire．Eighty－five feet Olass．Facing
main road All particulars of \(\mathrm{FLOBIST}, 11\) ，Dafforne Road． main road．All
Tooting，Surrey．

\section*{F}

IOR SALE．－A compact NURSERY and F FLORISTS＇BUSINESS，with good SKED and JOBBING TRADE attached，in Suffolk Market Town．Excellent Glase houres and Pit accommodntion．Good stabling．Potting and other sheds．Convenient Dwelling House．Varied and valu－ able Stook．No opposition within ton mile．ctioneers ver Hadleigh。 Suffolk．
BARGAIN．－VINERIES and PEACH－ BOUSES，with Boilers and Bood order．Siterequired for building．

G．S．R．，19，Whilley Street，Readiar．
TOR SALE．－2 Pairs handsome Standard LAURESTINUS，white variety；stems． 4 feet，heads，\({ }^{4}\) by 4 feet；in 18 －inch pots：will fower at Christass．－Proln，
6．3s．per pair．－J．GARDNER，Elsham Hall Gardens，Lincoln．

\section*{LORD PENZANCE＇S HYBRID}

SWEET BRIARS
8trong flowering bunches from open ground． 1891 年arieties，
Full particulars of

\section*{KEYNES，WILLIAMS \＆CO．，Ealisbury．}

A NTHONY W ATERER respectfully invites from intending Planters an inspection of the following ABIE 3 PUNGENS GLAUCA \(/\) COLORADO BLUE SPRUCR，男解 are grafted on the Common Spruce．
CEDRUS ATLLANTICA，5． \(8.7,8\) to 10 feet．
CEDRÜS I，EBA＇NI，5，6，7，8 to 10 feet．
ENGLISH YEWS，4， 58 to 8 feet
GOLDEN CHINESE JUNIPER，4， \(5,6,7\) ，and 8 feet
GOLDEN YEWS，Seedlings，perfect pyramids 4，5，6，and 7 ft ． PICEÄ CONOOOLOR VIOLACEA \(\}\) 4， \(5, B, 7\) ，and 8 feet．
\[
\text { LASICCORPA }\} \text { or, } \text {, and } 8 \text { feet. }
\]

PINUSAGNIFICA
n larielo
THUIOPSIS BOREALIS． 5 to 8 feet．
hollies，Green，Common，up to 10 and 12 feet
LAURIFOLIA up to 10 feet．
MYRTIFOLIA
GILVER QUEEN 4 to 10 feet．
WATERER＇s，and many other variegated kinds，
PERRY＇S WEEPING \(\}\) with straight stems and
YEWṠ，ENGLSH 5 ，fine heads．

\section*{PLANTING SEASON．}

HARDILY－GROWN FOREST，FRUIT，
TREES and PLANTS， EVERGREENS，ROSES，\＆c．
PRICED CATALOGUES POST－FREE．
DICKSONS nurseries CHESTER．

\begin{abstract}
Gardeners＇Royal Benevolent Institution． THE COMMITTEE of MANAGEMENT Funds of this Institution will take place in January，1896． Funds of this Institution will take place in January， \(1896^{\circ}\) Intending Candidates must forward their applications，on the Secretary，on or before November 9 next，after which date they cannot be received．

GEORGE J．INGRAM，Secretary．
Office：50，Parliament Street，London，S．W．
\end{abstract}

TIILIES OF THE VALLEY，－I beg to offer ber．Early orders respectfully soli ioited．Prices per 100， 1,000 ， 10，000，or 20.000 on application to－
T．JANNOCH，Dersingham，King＇s Lynn，Norfolk．
CARNATIONS，－Self colours a special feature． Malmaisons，beautiful soft pink var，good stuff，ready per dozen．Send for Catalogue．
CHAS．A．YOUNG，Floral Nursery，West Derby． F OR ORCHIDS of every desoription at pply to－ W．I．LEWIS AND CO．，Southgate，London，N．

\(\mathrm{G}^{\mathrm{B}}\)ERMAN or FLAG IRIS（Orchid Rivals）， \(G_{\text {best time to plant．First Prize }}\) Royal Botanic．Onfy

 PLANTS，\＆c．Over forty Medals awarded．Catalogue free． COLLINS AND CO．，39，Waterloo Road，London．

BARR＇S ENGLISH DAFFODILS．－The most beautiful and fashionable of Spring flowers．New Descriptive Catalogue now ready，sent free on application．
BARR＇S SPRING－FLOWERING BULBS．－Nend for full bask＇S SPRING－FLOWERLNG BULBS．－Send for full Descriptive List，ready September 1．
BARR＇S AUTUMN－ELOWERING CROCUSES，MEADOW－ S \(\ddagger\) FRRONS，CYOLAMEN，SCIELAS，SNOWFLAKES，\＆c． List free on application，
BARR＇S SEEDS for Present Sowing．－Catalogue on appli－
BARR
ARR AND SON，12，King Street，Covent Garden，London．
MANCHESTER WHOLESALE FLOWER MAREET．
CUT FLOWERS FOR FLORISTS．
\(\frac{1 E}{T}\) CO．FORBES，the largest Salesman of Cat to SEND CONSIGNMENTS on receipt of letter，telegram，or telephone，with quickeat possible despatch．Write for weelly National Telephone，1059．Established 1878.
GERMAN IFIS，large stook，strong healthy （1）plants，in 50 varieties，very cheap．－ 25 distinct sorts， and \％os，per 100 ，according to size of clumps．Erchange for Ferns，and Soft－wooded Stuff．
．HAIRSINE，Aldborough，Hull．
\(\mathrm{F}^{0}\) OR SALE．－The STOCK of a NEW （WBITE SEED）RUNNER BEAN；about 1 bushel． Awarded XXX at the R．H．S．Chiswick trials，August 16， \(1890^{\circ}\) one of the finest exhıbition rarioties up．24．Unquestionably straight pods，often measuring lainches in length．Offers to－

FG．H．COPP，Holnest Park，Sherborne． ERNS AND DECORATIVE PLANTS！－ house， 30 best selling sorte， 184.100 ；ditto large in and Green－ eelling sorts， 6 s ．doz．；strong seedlings， \(6 \mathrm{~s} .100,50 \mathrm{~s} .1000\) ；Adi－ antum cuneatum，in \(48^{\prime} \mathrm{s}\) ，for cutting， 6 s ．and 8 s ．doz ；ditto for making large plants quickly，16s，and 20s，100：Aralias， 10 s ． 100；Cyperus，Aralias，Grevilleas，Begonias，Solanums，in \(43^{\prime} s_{,} 68\) ．doz．；Marguerites．Solanums，Erica gracilis，in bloom， in \(48^{\circ}\) s， 9 s．doz．；Ficus，Palms，Dracsenas，Grotons，Bouvardias， and Erica hyemalis，12s．doz．Liste free．Packed free．Cash Worough Junction，London，S．W．W．Fers Siarseries，Jough－
\(\mathrm{D}^{0}\) ORYANTHES PALMERI，－On Sale magnificent specimen of this rare and beantiful pink low On application．
3 feet 6 inch ，hair of Variegated amentcan agaves splendil operimen plant of YUCCA FIHITMRA，\＆2 15s． health， 2 feet 9 in．high by 2 feet 9 in．acroes．Price，\(\ell 310 \mathrm{~s}\) Grand specimen ALOR SOCOTRINA，with five grow 10 s ． heads， 3 feet 6 inches high by 4 feet across，will send up five b．oom－spikes next year．Price，e3 ohn atherton，Cadley．Preston

\section*{FRUIT TREES A SPECIALTY．} STRAWBERRIES．
ROYAL SOVEREIGN，－The best Also all the best of Special quotations for large quantities． Competitor，Sensation， 1 ，and Old Varieties．including FRUIT TREES of all sorts，in all forms． send for Desecriptive Catalogue．
JOHN WATKINS，
POMONA FAFON SURGRERE，WMHINGTON，BEREYORD．

\section*{EXHIBITIONS．}

\section*{NATIONAL CHRYSANTHEMUM SOCIETY．}

\section*{Royal Aquarium，Westminster．}

GREAT FLORAL FETE， TUESDAY，WEDNESDAY，and THURSDAY， NOVEMBER 5，6，and 7， 1895.
The largest Exhibition of Chrysanthemums held in the country．Prizes for Fruit and Vegetables．Schedules of Prizes Ealing，London，W．

1．
ANNUAL SHOW，Town Halls，Reading，WEDNESDAY， Dunollie，Bulmershe Road，Reading．WALKER，Secretary，
COUNTY BOROUGH of HANLEY，Staffs The THIRTEENTH ANNUAL SHOW will
TUESDAY and WEDNESDAY，November 5 and 6.
Schedules now ready．\＆：00 offered in Cash Prizes．
DeVIZES CHRYSANTHEMUM SHOW
For a Group of Chrysanthemums， \(100 \mathrm{~s}, 80 \mathrm{~s}, 60 \mathrm{~s}\).
24 blooms of Incurved
\(200 \mathrm{~s}, 100 \mathrm{~s}, 60 \mathrm{~s}\) 24 blooms of Japanese And many other prizes．＂Schedules of Prizes from－ 40 ． 25 THOS．KING，Castle Grounds，Devizes，Wilts．
Watrord ohrysanthenum President ：The Right Hon．The EARL of CLARENDON． MUMS TENTH ANNUAL EXHIBITION O CHRYSANTHE be held in the Clarendon Hall．Watford，on TUESDAY and WEDNESDAY，November 5 and \(6,1895\).
Entries close on TGURSDAY，October 31．For Schedules and Entry Forms，apply to－ CHAS．R．HMBERT，Watford，Hon．Sec．
The eastbourne horticuultural CHRYSANTHEMUM SHOW，November 12 and 13， 1895. OPEN CLASSES．
36 Incurved，distinct，prizes ．．．\＆3 \＆\＆£1
33 Japanese，distinct，prizes ．．．\＆i \＆2 \＆1．
Entrance fee to one or both classes，5s．Close，November 6． E．A．NEWMAN，Secretary，
\(\frac{\text { 21，Brooklyn Terrace，Eastbourne．}}{\text { WEST OF ENGLAND OHRYSANTHE }}\) in Plymouth Guildhall on November 12 and 13． 2150 in Prizes．\＆23 for 48 Japanese．－For Schedules apply to，
4，North Hill，Plymouth．CHAS．WILSON，Hon．Sec．

\section*{FARNHAM \(\underset{\text { Society }}{\text { CHANTHEMUM }}\)} ASHOW will be held at the CORN EXCHANGE，Farnham on NOVRMBER 12 and 13，1895．PRIZES to the value of \＆3； for Chrysanthemumg，Fruit，Flowers，and Vegetables will be
offored in the Open Clasees．Schefules and Entry Forms from ffored in the Open Clasees．Schedules and Entry Forms from
F．WELER－POLEY，Hon．Sec．
Waverley Abbey，Famham． m．WELLER－POLEY，Hon．Sec．

\(\mathrm{H}^{\mathrm{H}}\)
ertrord horticultural mutual
The FOURTH GREAT ANNUAL SHOW of
CHBYSANTHEMUMS．AUTUMNAL FLOWERS，FRUIT Will be Held in the Corn Fxchang，
WEDNESDAY and THURSDAY，November 13 ，on Write for Schedules to JASON FEARS，Hon．Sec．，Hertford． Entries close November 6，1895．
CDINBURGH CHRYSANTHEMUM S S OOW（held under the auspices of the Scottish Horti Eultural Association）．November 14，15，and 16.
17．South Fre terich Street．Schedules on application to－
R＇MERT LAIRD．

\section*{B}

ATLEY CHRYSANTHEMUM SHOW． OPRN OLASA，NOVEMBER \(18,1895\).
and Cup，value of caine value 20 gainea，for 28 cot blooms； and Cup，ralue of wainees，for 24 cut bloome，in addition to Mr．ALLEN HALL，High Street．Batley，West Yorks．
Shefield drarysanthemun EIGETERNTR ANNUAL SHOW，Corn Rxchange，Shoffeld． ezoo in Prizes．Schedules on application to Shefield．

IL EEDS PAXTON SOCIETY＇S CHRYSAN THEMUM SHOW
The SEVENTH ANNUAL EXEIBITION will be held in the second West York Royal Engineer＇s Drill HaH，Clay Pits Lane． （off Coberg Street，top of Cookridge Street），Leeds，Nov． 19 and 20，whea upwards of 2170 will be offered in prizes．
Schedule of prizes may be had from
JAMEEG CAMPBRLL，Hon，Seo．
SOUTH SHIELDS and NORTHERN COUNTIES OHRYSANTHEMUM SOCIETX．
DAY．November 20 and 21 held on W RDNRSD AY and THURS－ South Shields． 20 and 21,1895 ，in the Royal \(A\) asembly Hall， For schedule apply to BERNAPD．
Hon，\＆ec．，Harton，South Slields．

\section*{BIRMINGHAM} GREAT

\section*{CHRYSANTHEMUM SHON TOWN HALL，}

WEDNESDAY and THURSDAY，Nov， 13 and 14, mes， £270 IN PRIZEs， Including Prizes of \(£ 10, £^{〔} 108,9 £_{5}, £_{2} 10\) \(£ 1\) 10s，and £1，for 24 Inourved，and the nol for 24 Japanese，all other Prizes being eqult large，including Fruit and Vegetables．

Entrifs Close Novembrr 6
Schedules and all information can be livit
140，High Street，Harborne，Jirmighim，
\(\mathbf{R}^{\text {UGBY CHEN }}\) CHRYSANTHEMUM KBABI． TION，November 13 and 14，1895．An then then
Burby Road，Rugbyo WILLIAM BBYANT，部基，
\(\mathbf{S}^{E C O N D}\) INTERNATIONAL HORTICOL
tural exhibition，dresdex．
From May 2 to \(10,1888\).
Under the high protection of His Majesty the King d ham． For rarticularas．Schedules，\＆c．，write to the Searstanith Z weiten Internationalen Gartenbau－A usstellung za Dration


\section*{CHRYSANTHEMUII EXHIBITION．}

OUR ANNUAL SHOW，which has now tor some years been acknowledged the finest in the country，will OPEN on MONDAY，November 4 ， and continued antil November 30．Admision each day until 1 P．m．free，after 1 p．y， \(6 d\) enh The Nurseries are \(\frac{3}{4}\) mile from Beeston Station， near Nottingham，Midland Railway．

\section*{J．R．PEARSON \＆SONS CHILWELL NURSERIES，NOTTS．}

\section*{HARRISONS＇ \\ ROOT AND VEEETABELE SHIO}

Will be Held in their Seed Warehonse，
41，WELFORD ROAD，LEICESTB
On WEDNESDAY，November 13， And three following days．
SILVER MEDALS and Valuable MoNBI PRIZES will be offered．
Schedules and Particulars on application to
HARRISON \＆SONS，
SEED GROWERS，\＆c．，LEICESTEB
FOR ORCHIDS and GARDENERS to Grow them，apply to ANDER＇s．st，Abbant Tho stook of Orchide in che World．-30 minuten from St 。Paselli

NOTICE．－All who want Carnations，Wull flowerr，and Bulbe of all hinds at unhearddo－
liat．- G．

\section*{To Chrysanthemum Exhbitora．}

SPRINGTHORPE＇S PATENT，the only COS and TUBE bighly commended by the Mational Chyrand mum Society， 1894 ．Used by all the leading prizotalers doz Sample，by post，1s．－G．SPRINGTEURP1，th Coombe Dourt，Kingston－on－Thames．

\section*{RHODODENDRONS．}

Well furnished and well budded，with from son to th： buds，consinting entirely of the reliable hardy MAJORITX BEIFG ON THETR OWN ROOTS，

MARDYAZALEAS． All the most beatiful varieties，varying in

\section*{15,000 PRIZE CARNATIONS \& PICOTEES}

Price, 122. per doz Special terma for quantity. Catalogues free. ABTHUR PIKE. 3. Windeor Place, Cardify.

\section*{FAY'S NEW PROLIFIC.}
h- iszest fruited and most prolific of all Red Cury.
MOUNTAIN GOOSEBERRY. - The best of
- ll Gooseberries for wine maling. Excessively prolific, and of vigoroas growth in almost erery soil.
LILACS. - Double and Single-flowering. RICHARDIA (CALIA) LITTLE GEM. (The true variety.
IRIS KAMPFERI.-Most splendid; flowors
ZOCHER \& CO, HAARLEM, HOLLAND
JOHNSON'S IMPROVED MUSEROOM SPAWN:
BEING one of the largest B Manufacturers of Mushrooma Spawn, and leeping over 100 cows,
from which I obtaina largequantity from which I obtain a largequantity of pure virgin spawn, I am in a position to ofier the best
special Prices for Large Quantities HANGER BILL. EALING.

\section*{ROSES, RHODODENDRONS, \&c.}
\(I^{\Sigma}\)
NTENDING PLANTERS cannot do better Ethan inspect the Windlosham Nurseries. Bagshot. The this Spring. A Converance will meet visitora at Bagshot or Sunningdale Stations by arrangement.
STANDARD ROSES, fine collection, 15s. to 21s. per doz.
BUSH ROSES, splendid stuff, 9s. per doz
CLIMBING ROSES, leqding Borts, 12 s . per doz.
RHODODEN 18s per
from 18s. per dozen.
Hybrid Seedling, from \(9 s\), per dozen.
Ponticum from \({ }^{2}\).
KäLMonticum. from 4s. per dozen. beautifully
KALMIAS. ANDROMEDAS, AZALEAS, 128.)
SEAKALE, for foreing, cannot be surpaseed, 10s. \& \(12 \%\). p. TUO FROOIT TREES of velly zood, 6s, and 8s. par 100
FRNAMERES OALI Finds, at low prices. ORNAMERNAL LDEA IBISE IVIES, in pote, splendid foliage, 3 feet to 13 feet, for CLIMBERS of all kinds.
HERBACEOUS PLANTS.-All leading varieties.
STOVE, GRERNHOUSE, and CONSERVATORY PLANTS. Every class,
BULEBS of all kinds, in splentid condition, at low prices.
GARDEN TOOLS and REQUUSITES of best makers. Descriptive CATALOQUES post-free on application. W. FBOMOW AND SONS, Mason's Numeries, Windlesham, Surrey; or, Sutton Court Nurseries, Chiswick, London, W.

\section*{FERNS!-FERNS!!}

50,000 Prime Stuff, in \(2 \frac{1}{2}\)-inoh pots-PTERIS CRISTATA, NOBILIS, MAJOR, TREMULA, and other Best Marlet Borts, at 9s. per 100.
Good, olean, and bushy stuff, in \(48^{\prime}{ }^{\prime}\), at \(48.6 d\). per dozan.
Above prices are for cash with order only.
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THE

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SATURDAY, OCTOBER 26, 1895
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\section*{SACRED FLOWERS.}

THE following " Rough Notes on some of the Sacred Flowers of the Hindus" are contributed by Yogendracri Ghoss, to a recent namber of the Proceedings of the Agricultural and Horticultural Society of India:-Flowers have been associated more or less with religious festivities of every nation and in every time. Garlands and wreaths of flowers appear in the Old Testament, as well as in the Zend Acest of the Fire-worshipper. With the ancient Greeks and Romans, flowers were a no less favourite adjunct to their oeremonies, religious, political, and social: a Palm and a Laurel were emblems much coveted. In India, however, flowers have attained an importance unprecedented in the annals of other nations. No religious or social ceremony of the Hindus is complete without flowers. In an assembly, the respeoted is decorated with garlands, and at times there is much heart-burning as to who shall get the first garland. In a party the invited have their share of nosegays as well as of pan and attar. The marriage ceremony is completed by the exchange of garlands between the bride and the bridegroom. The corpse is bedecked with garlands befoie it is placed on the funeral pile.

Naturally, therefore, the Castras toem with directions as to the kinds of flowers to be usod on partioular ocoasions, as to the time of collecting them, as to how to collect, and who shall colleot, and as to the time a particular flower is fit for offering before it becones stale.

In festivities and ceremonies conneoted with the manes of the ancestors, white flowers, and garlands made of white flowers only, are used. In nuptial ceremonies red, jellow, and white are allowable. In ceremonies connected with the worship and festivities of the goddesses of female energy, red flowers are preferred. But, in the following flowers the colvur is of no consequence, viz; Karabira (Nerium odoratum), Padma (Nelumbium speciosum), and Roses. The Padma or the Saored Lotus is ponsidered the prince of flowers, and the prohibition as to Cadra (Shudra) does not apply to this. Padma and some other flowers, such as Michelia Champaca, where the work of collecting is arduous, a Cidra (Shudra) may be permitted to bring them for the use of a person of the twice-born race.

So far back as Mana, the Brīhmana himself is directed to collect his own Kuça (Poa cynosuroides) flowers, Samid, i.e., faggots and water; those callected or brought by persons of the Cadra class, being pollated by their touch, are not fit for use. A Brăbmana should never beg flowers, but he can take them from anywbere without the parmission of their owner, for the
act is not a theft. A Brāhmana must not buy flowers, but he may do so if he pays a heroic price for the same. Flowers should not be collected in the afternoon nor after the midday bath. Flowers growing on trees in a temple, or near a burning-ground, or on a polluted land, are unfit for the parposes of offerings. Stale flowers are unfit for offering. Certain flowers beoome stale sooner than others. Stale flowers, -flowers not fresh-looking, and flowers dried or withered-should never be used. In col leoting flowers one should not denude the plant of every blossom, and the picking of buad which may not open the following morning is forbidden.
The use of flowers, or leaves and twigs, in religious ceremonier, though originating in the Vedas, became general in the later Pa ásas. In the Vedas, the Samid (faggots), or rather twigs, with mall leaflets for feeding the fire with, were mach valued. The Soma, however, which was equeezed for its juice to mix with fermented barley gruel, superneded all. Bat what thin Soma was it in rather difficult at this distant age to ancertain; more so when the Vedic Yäzas and observances have all been forgotten. The Soma was a rare commodity even in the days of the Vedas, and it used to be brought from distant countries on the backs of goats through tracts uninhabited, and infested by wild beasta and robberw. It uted to be bartered for cows. The Mpjavat Hill is said to be ita native land ; but where is this Parvat \& Scarcity of the true Soma was perceived in the later Vedas, for ita substitute, the Patika is mentioned in the later Bláhmanas. This Pūtilea again has now become protty acarce, and there are few experts in the Yajoas who can recognise it and know its habiteto. The aubstitute Soma hat been identified by the onrly Anglo-Indian botanista with the Sarcoatemma brevistigma. It is an almost leaflest twining plant which exudes a milky juice, and it grows in dry and arid soil. With the kind assistance of His Highness Prince Rā山à Varmà of Travancore, a few living specimens of the ame were obtained, bat the plante being impatient of damp, almont all died; the few which aurvived are now thriving and bearing flowers in the dry climate of Vindhy àzal, in Mirzapar, North-weatern provincee. A elitary epecimen, reared in a hanging pot, is growing with some laxuriance, but it has never been seen to bear flowera bere in the moist atmoaphere of Calcatta.

The Palaça (Batea frondona), it a Samid or faggot of Vedic antiquity. It origin is dencribed in a legendary anecdote occurring in one of the Buáhmanas of the Veda, and it is said to have been born of Nectar. With this tree in anocisted in the Vedas the Khadia (Acacia Catecha), but they are both uned an Samid or faggots dipped in ghi and thrown on the fire jast to feed on the eame. The Some and the sacred Grats Kuçs predominate in the Vedar.

Although the Soma has been forgotten and lost sight of, the Kuça Grass still retains its importance. No ceremony can be performed without this graas or any of its sabatitutes; for, ander the rales, a mat made of this grass is apocially consideted a manetified carpet, and though it may be dispensed with in certain ceremonie by asing woollen carpets, the ring which has to be borne on both the ring fingera made of two blades of Kaçs Grass, is an indispen. asble adjunct of every ceremony. A bundle of Kaça is equally indiapensable, for it has to be held in the left band while the ceremony continues. Three blades of the Kaça Grasa tied together with a peculiar knot make up the Pavitri, the purifier, with which every sacrificial object being aprinkled is parified.
The ternate-leaved Palācs in the later perioda hav, howover, been subatituted by the Vilva (Egle
Marmelon), which pater Marmelon), which has aleo ternate foliageo Pauzăaic Vilva is asaid to aimilar origin to the Vilva. The bence the Vilve is often atyled of Nectar (Amrita),
i.e., born of Nectar (Amrita), which was charned out of the ocean by the joint labourn of the goda and the demons, who, in so doing, uned the serpent-god Cesa as the charning-rope, and the Mount Meru as the churning-staff.

\section*{(To be continued.)}

\section*{New or Noteworthy Plants.}

MASDEVALLIA FORGETIANA, Krnzlo, \(u_{0} s p_{0}{ }^{*}\) A NEW pecies of Masdevallia from Northern Brazil, the home of the old Masdevallia infracta, Lindl., one of the veterans of the genus. The leaves are comparatively narrow, gloasy, bright green, paler below, blunt or rounded at the apex, and a little thorter than the alender wharply three-angled flowerstalk. About the latter, I am not aure if it bs one-flowered or few-flowered ; the specimen at band is one-flowered, but it seems to me that there have been several floweru. The cup or calyx of the sepals is very short, omewhat compreased, with a deep impression below, forming a rectangular chin at the very base of the cap; the free portion of the eepals is very short, the lateral ones especially being united, the top excepted; the taila are about 25 3 cm. long, the dorsal one being a little longer than the lateral. The colour of the sepal-cap is very tender tint-apricot outside, \&c., and a little more intense on the invide. The petals and the colamn are very insignificant, and jast as in many other Masdevallias; the lip, though very small, need some remarks. It is linear, with a blant, triangular, thickened, and somewhat warty apex; in the middle there are on each side two small lobes, and two small elevations or calli on the disc. The plant is, perhapa, not a first-rate beauty, lise many other Masdevallias, but it is nevertheless a nice little plant, and intereating an a Madevallia, coming from Brazil, a country not nearly so rich as the Andes of Peru and Ecuador. Is is, of course a genaine tropical Orchid, and requires warmer treatment than the alpine Masdevalliav. By apecial request of Menarn. F. Sander \& Co., who first flowered the plant, it is named after the collector, Mr, Forget. F. Kränzlin.

\section*{Anectochilus Sarderianus, M. \(s p\). (?).}

To establish a new apecier, flowers are, of curse, atrictly neceasary, especially in Orchida, and nobody is able to dencribe a new Odontoglonum or Dendrobium when ouly leaves or tulb are at hand. Bat among the terreatrial Orchid of the Sanda Islands the little groap of Acoctochilus and allied genera show so peculiar a character in the leaven, that we can anume a apecies to be new if the leaves that we receive how differences from thone of other plant of the same genus. The two leaves I received from Mr. F. Sander belong undoubtedly to a new Ancoctochilas, and are the most brilliant Orchid-leaven I have seen. Imagine two opponite, broad, oblong leaves, blunt at the top, with a alightly waved border, dark green and velvety on the upper nide, with a network of greenish-golden veine as in Ancetochilus setaceus, the underside pale flesh-coloured, with whitish veins. In vize the leal greatly marpasien the dimenaions of other known apecies of Ancectochilus, being nearly 11 cm . long (about 4 inchea) and 6 cm , broad ( 2 z inches)-dimension never reached by other Ancectochilas, and rarely by the beantifal Dosuinia marmorats, which entirely differs in the
* Masdeallia Forgetiana, Krnzl., n. sp. - Foliis oblongolanceolatis obtusis in petiolum sensim angustatis laete viridibus nitidis crasse coriaceis ad 12 cm . longis ad 2 cm . latis; scapo longiore 15 cm . alto, triquetro subtorto monantho? floribus saccedaneis? bractea scariosa longa pedicellum longum ( 3 cm ) dimidium usque vestiente, ovario-brevi; cyath) floris brevi campanulato infra mentum rectangulum formante parto libera mepali dorsalis brevi triangula in caudam teretem 3 cm . longam protracta ; sepalis lateralibus multo majoribus semiorbicularibuas fere ompano conatis parte libera brevissima in caudas 25 cm . longas protracta, toto eyatho pallide persicino intus roeeo-adsperso caudis intensioribus; petalis linearibus subfalcatis incurvis apice brevi-triangulis apiculo increassato. labello requilongo lineari medio utrinque lobulato, apice reflexo triangulo apiculato carnoso tubarculoso sequilongo, generis. - Northern Brazil, leg. Mr. Forget, Mr. F.
form and position of the leaver, and the two learen that I recerved were by no mean the bigget. I it a new apeciep, or only a giant form of Avcesto chilus setacens? Qui viura verra. To conclude, by analogy, I incline to regard the plant as being a the apecies, and I have therefore given it provinionaly name, Fr. Kränzlin.

\section*{AN ENGLISH ASTER FIELD}

Asters are at once amongat the mont bearatill easy cultivated, and popular of our halfohed annuals, and, in fact, they deserva more an bestowed apon them than they anally got th seeds which we purchase are montly raind in Germany, where the weather in the antur, il a rule, is more favourable for seed-warist the in this coantry. While on the Continent lape breadthe of land are devoted to their editan he seeding purposes, it has not been the catom to mon other than the "Globe" or "Qailled". riwin in this country with the same end in vien, Hemm H. Cannell \& Sons, at Egnaford, have made axperi menta in thi direction of late jearr, and Mewn Dubbie \& Co., Rothesay, imilar ones elaewhera vith reaulte which have jatified the latter firm in makim a more extended trial in their new grounds a Oipington, in Kent. The illustration here gira (tig. 83, p. 485 ) is of a corner of Meism, Dobbity Aster field, in which were cultivated the Quilla, Victoria, Pæony-flowered, Cornet, Dwarf Carjurs themam-flowered, and other varieties, to the number of close on 30,000 plants. The neede were some in March, the eeedlugge pricked ont in the unal wh, and placed in the quarters early in Jane-somentif later than uaual on account of the drought, from which, indeed, they affered aeverely at a later stife. The remarkably fine autumn made up for there and other ahortcomings, and we are informed that this year's experiment hav been a decided succen, and auch as to lead Measrr. Dobbie to believe that in the cananty of Kent, seed of Aster, of the flat petaled varieties, may be asved to advantage in an antuma of the ordinary character. Other pointa being equal, we should prefer home-grovin seeds to any othest,

\section*{KEW NOTES.}

Aristolochia clypeata. - We have at last as ceeded in inducing this npecies to develop ita hat aome flowers, alter having been unfortanate far three years. Hitherto, the fogs of October him caused the buds-of which plenty always formed a the old stems in September-to fall before ayy them opened. At the present time two planta maj wow aeen in flower, one in the Water-Lily-house, bersis about a dozen bloom ; and the other in the \(T\)-ragen There is a figure, with deacription of this apecies, in Gardoners' Chronicle, 1092, xi., pp. 433 and 435 . which represents the flower now at Kew, ixcep that the latter are larger and more delicung reticulated, whilet the leaves are maller. Thoy have no perceptible odoar, and are in wizi 6 incur by 7 inches, coloured inside of a rich velvety - whith, brown, beantifully chequered with creamy - wram with a blotch of bronzy-parple above the en as to the tabe. The plant ought to find favour autumn-flowering stove-climber. It is quatiti ferent from the now popular A. gigas Starte being both in leaf-characters and habit, the leaves dry and ovate acuminate, slightly peltate, of rather andar papery textare, with rough venation on the from aide, whilst the flowers are alway deang hooth the old corkj-atems, and not from yo hare botil The Kew plante were received for, and home has grown in A. gigantea, a opecien with ay larget similar leaves and flowers, but the latter mbis (Nor A. clypeate wat discovered in Colombist it to Grenada), by the collector Walli, who sent alomed M. Linden in 1868. There is good colaur figure of it in L'Illustration Hortioole, 1870, pl. 40:

\section*{Albbrta magna.}

This plant was introduced from Natal in 1891 , and flowered for the firnt time at Kow in Oitober leal
year. It is now in flower again in the Cape-house, and will probably contivue in bloom for some time yet. The habit of the plant is that of an erect, sturdy, freely-branched shrab, with orate glosiy green leares, and terminal paniclen of narrow tabolar flowert, an inch long, and coloured of a bright crimson, saggerting, in the effect they produce, those of Eabothriom coccineum. It is a promising plant for the ccol conservatory, and may evea prove hardy in the warmer part of these islands. There is a second attraction in the bright red colour of the leaf like calya lobes, which develop
the form of stars, their colour being cream- yellow, dotted with brown, and the whole surface covered with long eft white silk-like hairs, the attraction of the apecimen fiere deacrified will not be doubted, not mentioning the disagreeable odour which excitea much cariosity among visitora until its source is discovered. This Stapelia thriven only when grown in a hot moist stove-in fact, the Kew plants are grown along with Dendrobium Phalronopais. Posibly many other apecies of Stapelia, which are generally difficult to manage, or, at any rate, to flower in a dry accalent hoane, woald grow better and flower with
are borne on a crowded, branched panicle, which ie partly enclosed in a large bost-shaped epatbe 18 inches long, apringing from the axiln of the oldent leaf. A figure of it has been prepared for the Botanical Masazine.

\section*{Crcnocars Haager}

Thi diatinct species firt flowered at Kew exactly three year ago, a year after it had been received from Mr. E. Kand, of Para, Brazil, along with C pentadactylon, which flowered at the ame time. C. IIagei was firt cercribed by Rodriguez, and the


Frg. 83- messer. dubbie and co' sster field at orpington, Eent. (ser p. 484)
after the flowera have faded, and astume a bripht red colour. The same character occurs in the allied genera Mussende and Howardia. There are only two apecies of Alberts, the second being a native of Madagatcar. A. magna is evergreen, and in a handnome Laurel-like shrub when not in flower. It prefere a peaty soil, and enjoy plenty of aunlight.

\section*{Stapelia gigantza.}

A well- flowered example of this magnificent Stapelia has lately been exhibited in the stove at Kew. It began by developing four large flowers aimultaneouly, and bore at the same time thirteen bude in various atagea of growth. The plant is growing in 9 -inch pan aumended from the roof, and ite fleshy, fouraugled utem almont completely hide the pan. As the flowern are each nearly a foot in diameter, and in
greater freedom if treated more liberally in reapect to moistare and heat.

\section*{Scheilea species}

Scheelea is the next M. Martiana (regia) is one of the mont magnificent of all Palms, and whose oval-shaped fruita are known in South America as "Kokerites." There is a grand specimen in the Palm-house at Kow which has been grown for thi Maximiliana, but now that it is in flower, it proves to be apecies of Scheelea. The principal, indeed one might almost say the only notable difference between these two genera is in the atructure of the amall flowern. The Kew plant has pinnate leaves 25 feet long, and narrow pinneo from 3 to 5 feet long, each leaf being gigantic plume as elegant an those of an ostrich. The flowera
name has aince been adopted by Mr. Ralfe, who has paid apecial attention to thim and allied genera for some reare, with the rearlt that a conaiderable namber of speciea bave been added to our collection. C. Haagei has elongated paendo-bulbe 6 inches long, pale green lanceolate leave 8 inche: by \(1 \frac{1}{2}\) incher, and a alender arched ecape 6 inches long, bearing six flowers, each 2 inchen across; the aepals are 1 inch long, lanceolate and keeled; the petals are ovate, flat, and as long as the sepals, their colour being dull olive-green; the lip, which is colonred cream-yellow, with a tinge of row and a few red dote, is nearly round, flat, 1 inch in diameter, acuminate at the tip, with a pair of teeth-like pro-, jections in the ceatre below the top of the slender arching, green colamn. The plant is again in flower in the warm Orchid-house.

\section*{Bulbophyllum Medus在.}

Two plants of this extraordinary species are now in flower in the Orcbid-house at Kew , each bearing two of the drum-stics-like inflorescences. The capes are about 6 inches long, and the globose head of flowerp, which are 2 inches in diameter, are composed of large lanceolate whitish bracts, and amall pale yellow flowers, with eepal tipped with long noft hair-like appendages, which hang down to a length of 3 inches, and are cream-white, with a few mall dull-red spota. The plant is a native of Singapore and neighbourhood, and although it has been in cultivation over fifty year, it is rare in collec. tions. Its other name is Cirrhopetalum. \(\Lambda\) t Kew it is grown in baskets surpended close to the roof in a hot moist house, along with Phalænopsin. It is worthy of a place in all representative collection, and I believe it in to be bought cheaply. W. W.

\section*{Caryoptrris Magtacanthus.}

Not only is this a rare and interesting shrub, but it is also one possensing much beanty. It was one of Fortune's introduction from China, but it afterwards nearly or quite disappesred from cultivation. It was, however, collected in Japan both by Oldbam and Maries, and by the latter was re-introduced to English garden about filteen years ago. It is a member of the Verbens family, and grows to a height of 3 or 4 feet; the opposite leaves are oblong-lanceolate, tomentose, and, as a rule, very coarsely toothed. The mall flower are of a pretty parpliah. blue, closely packed in memi-globalar cymes, which spring from the leaf sxils at the upper part of the atem. The bottom lobe (or lip) of the corolla in alightly fringed, a character which aggested the now obsolete generic name of Barbala. A specimen of this shrab in planted at the foot of the wall of Maseum No. 1 at Kew, and is now very finely in flower. Except in the mouth-western countien of England and imilarly-favoured localitien, this ahrab will probably require at least an equal amount of protection. It was originally treated as a greenhouse plant, but it is an an outdoor shrab that its value is most apparent, for flowering, as it does, in Augut and September, it is eapecially welcome. W. J. B.

\section*{Foreign Correspondence.}

\section*{CATTLEYA CANDIDA (Kth.) Lehm.}
(Sfmar. Cymbidium candidua, H.B K.; Cattleya CHOCOENSTS, HORT.)
In eccordance to the lawe of priority in naming and dencribing plants, I consider it high time that this plant ohould be referred to its original name as given by Kunth. Cattleya candida is one of the two firat deacribed epecien of this genur, and although it was placed with Cymbidiam, Kanth expreased his conviction that it could not belong to that genus on account of ite posseaning four pollinias. The apecies is very well dencribed in the Syn. Plant. by Kunth, and easily recognised by this description. It may be objected that the plant is not a pure white one, and therefore the name candide is not quite appropriate. To this I observe that every author is allowed to name his plante as he thinks best, that there are other plants far leas white and jet bear that upecif. cation, vide Miltonia candida, and that the apecification "chocoenais" is far less appropriate, as thin Cattleys does not grow in the Choco, but in the Cauca Valley, two quite different provinces.

Cattlega candida is a very variable and very floriferous apecies in its natural habitat. The masbes attain often large proportion, are well shaped, bat montly loose and atraggiy at it rhizomes. The flowert are produced from three to five-mot commonly in threes-on a pike, and borne aloft free of the leaven. In the beatatrain of the apecies, the flowers are pare white with the lip pearl-thell-rome at the tube, yellow at the bave, and crimson at the dilated aper. There are ecarcely two planter in which the and of the samenize and colour. It changes from the
deepest crimon to the most tender rose, but always leaving a white margin. Of conspicuous varieties, there is one with pare white flowers except some yellow at the base of the lip, and another in which the eepals and petals are deep rose and the lip of glowing crimson-parple. This latter variety is the rarest!
Cattleya candida is distributed over the valley of the Canca from Tulná down to the neighbourhood of Fredonia and Concordia in Antioquia, and reatricted to a region that extend from 600 to 1100 métres above the nea-level. It grows on trees high up on their branches in dense woods. The climate of the region is very damp for some six months of the jear, and very dry during three months in the time at which the plant flowern. The temperature of the region ranges between \(22^{\circ}\) and \(25^{\circ}\) Centigrade. F.C. Lehmann.

\section*{A Tour in Lombardy.}

The public garden at Milan is one of the prettient gardens in Lombardy. A small stream flowing through the garden, and traversed in various places by ornamental and rustic bridges, beneath a rich and varied vegetation, forms one of the greatess features of the garden. Amongst many noteworthy treen I remarked several fine specimens of the Maidenhair tree (Ginkgo bilobs), Ailanthas glandulosus, which is very common in Lombardy, several fine groups of Magnolia grandifora, ay l some very fine trees of Magnolia conspicua. The latter was labelled M. porphorone, which is probably a mintake. Conifers, especially the Abics and Cedar, were fine. The flower garden was gay with various flower-beda, carpet bedding being the finest feature. In a sabtropical bed I noticed a very showy Polygonam, probably P. filiforme variegatum, which is very effective, with its large green and white mottled foliage. In an adjacent bed was a very pretty dwarf variety of Lantana, fres-flowering and pure white in colour.
Extending all round the town is \& very fine avenue of Horie-Chestnut trees, which, before the storm of 1873 , formed one of the features of the town, but owing to so many branches having then been broken off, they werg topped, and present now a rather atunted appearance. The Syrian Mallow (Hibiscus ayriacus) is used largely for hedges, and at the time of my visit presented quite a feature in itself, so varied are the colourn of the flowers. Having made the tour en bicyclette, I cannot pass Tarin without a remark on its beautiful avenue. Such a variety of trees cannot be found, I ahould thiok, in any other Earopean town, for I noted no leme than nine apecies inclading the Elm, Plane, Hornbeam, Sycamore, Horse-Chestnut, Osk, Sophora japonica, Robinia preudo-Acacia, and Acer, and each rivalling the other in bearty.
After cronsing the Maritime Alpa, a vast plain is traverted through fielda of Hemp and Maize, and a few field of Rice near the rivers, but the crops are chiefly the two former. I was most aurprised to find that fruit is not grown in this part, an the soil and aspect ia certainly favoarable for it. L?aving Muan en route for Genoa, one oon gets again into the famou Vine country, where a good bottle of vin d'Asti is very acceptable to a bicyclint who has done fifty miles before dinner. Riviera.

\section*{FOOD REQUIREMENTS OF THE CHRYSANTHEMUM. \\ (Con:inut from p. 181.)}

Having written my article about a year ago, aud lorg siace got the question answered to may atimfacion, and the present being a basy time, I shail try to answer Mr. Dgke as brielly as posable. I did not write, "I have got a complete analyain of the soil;" but, on the contrary, "if we have not got a complete analyais," which the editor will find in my manuicript, and it is corroborated by what followe. I have farmed the land from which the losm was taken for the lant three or four jears only, and know it therefore to be of poor quality, it having been very badiy farmed by my predecenmor in tho tenancy, but not lacking in potash; and this nub-
stance, if ased alone, or in conjunction with nitrater and phosphates, does not perceptibly increase the yield of any crop, not even Stramberries or root crops. I do not think a well-managed rabbiathheap, consisting of weed (alway with noil adheriag), wood-ashes, and finely-broken charcoal, night-eoil, and refuse-plants, well mixed together, by being turned over several times during a year, is a mach appreciated in England as it deserves to bo-at lent, Mr. Dyke seems to have no faith in its valuena manare; and yet it is the cheapest as well an aseot one available, forming an excellent soil for pof plants, by mixing it with fibry loam, even it that bo of poor quality. Without borsting, I would mention that I have thirty yeara' practical experienco in Eagland, Belgium, France, and at home, at ano dener, so that I ought to know something abont the mechanical and other condition of solls in potting.
Bat to return to the artificial manare quation, I appose I am obliged to quote the mixtures and analy uis again if anybody in in thelua to understand the matter:-


There do not look so entirely different from ereh other or from the ash; in fact, good renulta an generally obtained with artificial manure that in th less accordance with the constituents found in the ah of plants, and if this wan not the case they conld never be used without a complete analynis of tho noil being made beforehand. No, the carae of my non-nuccess is quite different, bat I will retarn to that a little later; first a few words about quantitice recommended, or actually used. When I am going to use artilicial manures for plants in pots, borden, \&c., I ask, what is the largent quantity of similar manure used profitably by farmera? When planta have a reatricted root run and they are grot feeders, and the subatance to be used is of a harmiens nature, I ase double that quantity, and of courro trying to make it composition in accordance mith what in known about the need of the plants.
Now, the rate of application is one of manare to four handred of noil, which comes out an something like 2000 to 3000 lb . per acre, reckoning depth of moil at 7 to 8 inchen (rather too little), and an arerabe weight of 40 to 50 lb . per cabic foot (this varien vers
* These ingrediente to be mired with the soil; the reat in this column to be used as top-dressiogs by-and-by. \(\dagger\) In freth plant.
mucb). Mr. Dgke recommends one of manare to twents-fire of toil, to be mised at once, with topdressings following of \(1 \cdot 16\), or something like 50,000 to 60000 lb . per acre. I did not mix the ingrediente togetber before uing them, they were simply weighed from the bage, strewn on the heap of soil, and at once thorouzhly mixed with it by several tarninge. The ammonis may have been liberated in the soil, bat the latter will aboorb and hold fast a mach larger quantity. So I had my four per cent. of nitrogen beaides that contained in the soil, and in the onefifth of good half-rotted ttable-manure ; and calculation the smoant of nitrogen in this to be 10 to 12 , or 15 lb . per ton, every practical cultivator known that good soil, with an addition of one part atablemanare to four parts of soil is not lacking in nitrogen when first mired and for some time afterwards. In fact many Chrysanthemum growers ubtain good result with this alone. And yet I came to the same conclasion as Mr. Dgke in regard to Chryanthemam potting-soil lacking in nitrogen, an notwithstanding the good supply of nitrogen at hand, the plante ware nuffering for lack of it, because they are able to absorb it only in the form of nitric acid, and not as ammonia; not even the alphate of ammonia (not organic) coald be transformed into nitric acid. Otherwise this would be quickly done by Cbryanthemum planta afforded alphate of ammonia, and with about the ame reault an Mr Djze gets from pitrate of mmonia, viz, the appearance of very dark green leaven in a few days.

Here comes the only difference of any consequence in the componition of Mr. Dyke's manure and mine. H9 afforded nitrates, and I ammonia (or organic nitrogenous abatances), and his plants obtained thair nitrogen from the nitrates and not from the soil. But it is quite impossible for Chrys. anthemams to be manured solely by artificial abstance independently of the soil naed. We want a concentrated, effective, but above all, barmless aupplementary manare-and kainite, at all evento. is not such a one. The price of an article is also of soms convequence, and it should be bought in quantity and not in amall way at a high price st the draggiste.

I cannot eee the force of Mr. Dike's remark about the harmfulnes of chlorine, sulpharic acid, and lime, when he himelf asen the ame aubatancen in a much larger proportion to noil than I do, and with good results. His proving that Chryeanthemum may be grown in oil containing 1 part of the abovespecified manure to 16 (or 25) part of aoil is very interesting. M. P. Andersen, Jönköping.

\section*{ORCHIDS IN THEIR HOME. (Continued from p. 423.)}

Cattleyas - The Cattleyas are found at from 2000 to nearly 5000 feet above ea-level, almost invariably growing on living trees, on the tranks or in the forks of the branchen. They always try, as it were, to establish themselves in places where they receive abandance of light and a glimpse of an. Sometimes, indeed, they aro exposed to the fall aun. The latter, as a rule, are the best plants. At the lowent elevation they will persistently follow the course of atream. Higher ap they may be found growing in deep hollow or gallies, and at the last stage they are found in all exponares. This is eavily explained by the atmosphere being charged with more moisture than at the lower elevation, where a dryer heat prevails. Most of the Colombiau Cattleyas and also other Orchids have no well-defined resting periods, as far as I have observed, within almost two-third of the entire territory. There are two rainy and two dry seasons in the year, while even during the dry messons it is not an infrequent occurrence to have a shower of rain now and then.
Plants of Cattleya Triansei are found in flower almont the year round, yet there are two marked flower seasons, December to January and May to Jane, the latter being the chlef. A numbar of plants would have four and five flowering leade already fully up, with another half-grown break at its base, while very often a third would be starting. Such breaks
alway seemed to grow and mature in much less time than the mother balb, in order to, as it were, in one united effort display their floral treaure.

Geographical Range.
The Repablic of Colombia is very rich in Orchids, the different species being spresd over it entire territory. The greatent namber of apecies, however, is probsbly to be found on the eantern foothill of the central Cordillera, which is a continuation of the Peravian and Equadorian Andee; but apon entering Colombia they branch out into three diatinct chains, known as the Central Cordillera, the Eatern Cordillera, and the Weatern Cordillera, forming between them the immense valley and river rintems called the Canca, the Magdalena, and "Los L'raos de Sto Juan," or the "Cazanare" This latter immence territory in drained principally by the \(\Lambda\) mazin and the Orinoco aystems, great atretches of wich are an yet anexplored.
The State of Tolima may be connidered an the home of Cattleya Trisnæi. It follows the eastern foothill of the Central Cordillera from about the necond degree to about the fifth degree northern latitade, and at its mouthern limit it is diatribated over all the three chains. This latter region is also the home of OJontoglomm crispum Lohmanni.
Cattleye gigas takes the place of Cattleya Trianzi further northward, where it extend between the aixth and the eighth degres northern latitude on both the central and eastern chaina. This territory is exceptionally rich in usefal specien, sach as Cabtleya chryatoxa, Miltonia vexillaria, Ojontoglonam luteo-purpareum, O. aceptram, O. coronarium, O. Wallinii, and O. Harryanum ; alno Cepripediam Schlimii, Maxillaria lateo-alba, Epidendram fimbriatum, and Meadevallias in variety. Sanean, however, may be considered as the principal diatrict for the latter.

I found Miltonia vexillaria as low an 2000 feet above sea-level, and as high an 6000 to 7000 feet, but at the first.mentioned altitude the p'ant were generally very mall. It generally grows on amaller trees and branches of Melastomas and Quercue. Odontogloasum coronarium is found at a very high altitude, often growing on the ground or in mass, where it ramble for yard until it find a tree suited for it requirements. The magaificence of the flowerspike nurpanee imagination.

\section*{Odontoglossum cetspum,}

Oa the Eastern chain Odontoglonsum crivpam is found, principally between the fourth and sixth degree northern latitude at an altituje of 6000 to 9000 feet. The best plants and the beat varieties, however, occur at 6,000 and 7,000 feet elevation, where they grow in occasional openings of the foreats on the tranki and branches of large trees, and where there is an abundance of light. In company with O crispum grow O. Lindleyanum and O glorioam.
Farther northward, or in the atate of Santander, Cattleya Mendeli occars, and on the eagtern foothills of the eastern Cordillera, Cattleya Schroderm. On the Weatern chain or along the Rio Cauca, Cattleys Chocoensis is found. Ualike its allies, it grows to a great extent in forests on level land, stretches of which are wampy and unhealthy. This Cattleya is very abundant in certain place, and grows invariably on trees. The flowering reason is Auguth and September. In thia region may aluo be found Odontoglossum Roezlii, growing in a comparatively high temperature.

\section*{The Exd is Approaching.}

Many of the New Granadan Orchida are rapidly decreasing in quantity. Cattleya chrysotoxa is very near extinction, Miltonia vexillaria is going fast, as are also Cattleya Mendeliand Odontoglosenm cispam. Miltonia vexillaria and O. crispam increase rapidly from eed, where the foreats are not already dertroyed, or they would have bsen extinct ere this. The native are also beginning to deal more considerately with the forests, beside which many of the landowners and even the respective governmenta are taking precautions againet the total destruction of their mont beautiful jowels. And can you blame them: From a lecture by John E. Lager, reported in "American Gardening."

\section*{Forestry}

\section*{INSECT ENEMIES TO TREEF.}

The best athorities asert that bigh cultivation and the proper rotation of crope is the mont effectual remedy or preventive of insect attack, and is many cases it ia the only practical one. So far at this country is conceraed, it may be reasonably contended that the ibjury canned by few, if any, inaect attacke to which our crop are liable, equel the injary caused by a single night' frost in May or June, or a severe hailatorm later in the seaton. This is probably the reason why cultivator in general pay so little attention to iarect peat outside gardena and forcing-houses, where preventive measures cal be adopted with good prospect of nuccens, doabtlete thinking it useless to atrain at the gat when they have already wallowed the camel.

If thi be generally true of farm crops, it is mach more when we come to forest trees. In this connection it must be remembered, however, that oar treen in 13 -itain are free from many of those insects which commit euch serious ravage upon the same kind of trees in continental forents. The Scote Pine with ut hat no very dangeron foe among the Lepidoptera, while on the Continent it hat at least three which may be thas classed. Among beetles, the Pine-beetle and Pine-weevil are certaialy troublesome, but considering that the very exintence of the former is practically ignored in most parts of the country, it has evidently done lens permanent injury to Pine tree (jutaide mall plantations and isolated clampe) than it habite would lead one to infer. The Pine-weevil is priacipally conflined to the northern part of the kingdom, and from its size and habit of attacking mall and neialy-planted trees, in brought into more prominent notice than would otherwise be the care. The Pine aw-fly again, although occisionally assuming a dangerous aspect, gives little troable as a rule.

Coming to deciduon treep, where have we a pest which give ut any real caune for alarm? The OLkleaf roller-moth, Tortrix viridana, otrips our Oake to winter barenss in dry and blighty eprings, but the midsummer shoote put mstters right in the course of a few weeks, and the treen neem but little the worse. Many insecte, especially beetles, doubtlem get a bad name from their well-known habit of attacking old and half-dead trees, and thus bastening their natural decay; but in this they merely act as Nature' scavengers. As a matter of fact, an attack by any of the bark-beetle opon a tree, or part of a tree which atill retain a westige of life, is extremely rare. The least flow of sap in sufficient to stop the female in her boring operation, and numbers of commenced bat abandoned galleries may be noticed in trees which are practically dead, but in which life atill lingers in one or two branchet.

Fur our comparative immanity from auccenaive and serious attacks of caterpillar swarme, we probably have to thank their natural parasites and enemies. Where haman being are at all crowded together, there epidemic direates occur; and the invects would seem to be affected in like manner, for a year in which a seriou: plague of these creatures appear is often followed by one in which they are comparatively rare. Bacteria and other form of parasitic fungi probably play a great part in regulating the numbers of theme prolifle creaturem, and were it otherwise, our trees and ahribs would be deprived of every green leaf. A pair of moths or beetles may bacoms the course of anmmer, to it may easily be imagined what would happen if this went on anchecked for a few years. As it is, attacks of caterpillars sometime occur in the Pine and Sprace Fir forente on the Continent, which threaten their very existence, and even affeet the prosperity of the diatrict they infent.
As an inatance of this, it may be mentioned that the attendance at everal German watering-places on the Baltic coast hes seriously fallen off owing to the swarms of caterpillars in the neighbouring Scote Pine woods. These caterpillars are farnished with long and poinonous hairs, which, at the periodical
catting of their skins become detached, and poison the rery a! monphere over a coniderable area. Bat sach cares an these in this country are not among the probabilities, and we may asfely confine ourselves to easy and inexpensive measares of preventing, or rather allevisting, the more severe attacke which occasionally occar, trusting to climate and natural Jawn to do the rest. A, C. Forbes.

\section*{OLD-TIME ADVERTISEMENTS.}

A collection of last-century newapapers lately came into my possession, and it astoniahed me to find nambers of advertisement having reference to the seed and naruery trade in their pages. I have called the following quaint annoancements, which cannot fail to intereat many in the present enlightened days, as they merve to illastrate the desire of traders to use the Press as a means of pathing their wares, even in times when newapapere Ead but a very limited circalation. Seedsman.

\section*{From the London Journal, Jaly 15, 1721 :-}
" Jast brought over from Holland, a fine collection of Orage and Lamon treek, both p'ain and variegated, with the fineat cream and yellow colours, of the best sorts, fall of fruit and flowers, of all aiz's, fit for the Orangery, or to adorn ladiea chambers. To be sold very cheap, by James Letley, at Mr. Frasier's, next to Beanfort Hoase, near the wateraide at Chelsea; where all gentlemen and ladies may be farnished with the most carious forms of bulbous roots from Holland, and other parts of Earope, at the lowest prices.

From the Country Journal, November 15, 1729 :" To be wold, a parcel of atandard Elms, of about eight years' growth, now standing and growing at Mr. Jamen Norrin's, nurteryman, the backnide of Lambeth Welle. Eaquire of the maid Mr. Norris, who is emponered to treat with any person for the same."
"German Dogatail Grass-Bweeter than other grass, and makes with weedings as beautifal lawns as the closeat shaven bank. To be had in papers done up at 5 se each at Gregge Coffee House, York Street, Covent Garden.

Also American Cabbage weed which comes to 80 lb , weight and near to \(£ 40\) an acre valua, price 10s. per pound. Hangarian Clover exceeding Lacerne, price 7 s .6 d . per pound."
Here is an announcement of quite another character, which clearly portrays what a jovial time the foriats of the day must have made of their exhibitions. It is taken from the Kentish Gazette, April 13, 1776:-

To the florista. On Tuesday next, the 23rd inst, there will be a Polianthan feast at Mr. Richard Pain's, at Waldenhare. The beat flower prodaced will be entitled to a prize of \(108.6 d\)., the second bent to 7 s. \(6 d .\), and the third to 58 . No permon will be admitted to shew a flower, unless he hae subscribed 18. one month before the day of shewing, or \(28.6 d\). on that day. No person will be entitled to a prize anlese it is rose-eyed, has six pips, and in the honse before one o'clock. Much company expected. Dinner on table at one o'clock."
A carious illustration of a plant in pot accompanies this notice.

From the Evening Post, March 29, 1287 :
"Frowres.-John Allport, seedsman and nurseryman, Hackney Road, bega leave to inform those ladier and gentlemen and the public that he hae now in fall bloom fine Rosep, Pinky, and other curious Forced Flowers in Pots and for Nosegays, and will continue a anccenion all the season, Likewise Greenhouse and Hardy Planta, Treer, Carnathons, Flower Roots, sce, alvo all kinds of Seeds for the Flower aud Kitchen Garden warranted of the beat
The Newcastle Alvertiser, October 30, 1790, con-
tains a leacthy adrertisereant for-
" Fruit and Foren Treat
"Fruit and Forem Trees, Floweri
Shrabe, of John Richward \& Coring Leith Wergreen
series, Edinburgh. Standard Apples are figured at \(6 d\) erch, D жarff, \(4 d\)."
The Leeds Mercury, November 30, 1793.
"Thomas Barney, Nurwery and Seedeman, Briggate, Leed, bega to announce that he has received a fresh aupply of Garden and Bird Seeds. His Nursery Stock is joung and healthful, notwithatanding what some evil-diaponed persona may have anid to the contrary."
The Middleses Journal for February 15 to February 17, 1766, contains the following curions advertisement about a specien of grass that is now handled by the ton:-
"American Cock's-foot gram yields larger than any other, lasts for ever on the land, and smothers all weeds.

\section*{The Herbaceous Border. \\ TROPEOLUM SPECIOSUM.}

There are few finer hardy climbing plant than the brilliant-flowered Tropæolum apeciosam, where it does well. To any one deniring to give it a trial, the present season offere a good time to make preparations by ecaring fresh and plump roots, which are unally to be obtained in pote, and planting them without delay. One of the chief point to be observed is, to plant the roota 8 or 9 inches deep; there is no necessity to disturb mack ground, and it need not be dug deeper than 1 foot. Place a little decaged manare in the bottom of the hole, covering this with aoil, and make it firm. Then plant the roots at the depth atated, and make the woil quite firm over them. The plant appears to prefer a firm soil and comparative dryness, seeing that it more frequently succeeds in a hedge-row, or at the foot of a dwelling-house wall or some similar place. It dinlikes frequent disturbance. Where it can be entablinhed, it in an excellent plant for covering dark-leaved thrabs, and in such positions it profasion of brilliant flowers display themselven to great advantage. J.

\section*{Chrlone barbata.}

This is a beantifal hardy herbaceoun perennial plant, an abundant bloomer, with apiken of light acarlet coloured flower, which grow 2 feet high; it is, in fact, a Pentatemon in miniature. A plant of this species has been in flower at Basing Park for four monthe, and atill keepa ap a brilliant show by throwing up constantly new flower-apikes. Ordinary garden mould suits its requirements, and it is so hardy, that without any protection it withotood the rigours of laat winter unharmed. Propagation is by division, and seeds nown in the month of April. These needlings flower at the end of the firat aummer. Wm. Smythe, The Gardens, Basing Park, Alton.

\section*{PRUNING FRUIT TreEs.}

Agtir reading this paper a week ago, I thought the description "mont interesting paper," should be altered to " most extraordinary," coming, as it does, from a frait-grower. I shall aay nothing more about Mr. Pearaon's description of the different achoois of praners than that it is imponible to identify them by it ; but when he deacends to practice one can deal with him. He eays the first object of praning frait trees is to obtain fruit, and further on he add apeaking of standards-" that all branches mast be so dimposed as to admit the cunlight and air into the middle of the tree for without this fertility was impossible." Will any fruit-grower who really knows how an Apple or Pear tree develops itself endorne this statement? A tree can, by much needlese matilation, be made to grow in the shape of a basin, which is the plan of thone who admit light " to the middle of the tree; " and I once worked in a noted garden where the standards were all of that shape inside the walls, but where the chief mupply of fruit came from an orchard outaide, where all the treen were unpruned, and of the shape of umbrellas were
or lest, in which no light or air in the sente uader. atood reached the middle of the tree at all, and I have noted thousands of similar examples aince Left to itself, a frait tree produce a round, or, a Dr. Lindley aaid, a "hemispherical" head, "tomarde the outride of which frait-apara and leaves are mon abundant," and this is the kind of tree (the opponit of Mr. Pearson's) that every casaal obserpertit familiar with, but in which, according to Mr. Perro son, fertility is "imponsible." This shape sho produce the greatest quantity of frait in a given time, and exposes the fruit to the ann and air better than any other form, no matter whether the tree bo dwarf or tall. This fact is so evident everywhere that one wonders to hear it questioned.
It is amusing to read Mr. Pearson's contradictorn directions on the subject of standards and contina In their habit of bearing frait there is not mithan difference. According to Mr. P., young mererd Apples, Pears, and Plams are to be cat back inthin shoots to one-third their length. This is to xum "form," \&ce, though in what way this necures my. thing bat a maaller tree and leas frait, under equil conditions, is a pazzle. Cutting two-thirds of 1 healthy tree away for the rubbish-heap is an extro ordinary idea, bat in his cordons the leading hoot are, we are told, "left as long ae ponsible, bearing in mind the fact that the more one pruned amat tho atronger would the growth be from the remsining buds, let them err rather on the side of catting amy too little than too much." Exactly! and it in the same with the individual shoots of standarde, pretically cordons, no shortening being needed except to secure balance and prevent a too atraggling habit. About ten years ago I gave one of my men some Apple tree for his garden, on the condition that he never touched them with a knife, which condition has been obwerved, and the treen are now of the "imponible fertility" shape, but marvels of fruitfalness all the same. Bat individual examplen are apertlaons, for no one cin help reeing auch as I deacribe, anywhere. If the "little band" of mutilators which Mr. Penroen alludes to atill exists, the sooner it follows the "ten little nigger boy" the better for fruit grower, I should say. I am at one with the Rev. W. Wilks of the Royal Horticaltaral Society, in his paper read at last year's conference, and published in the cramactions, in which he "is strongly of opinion" thas joung atandarde, half atandardm, and buah trees "need very little pruning at all, and that you will do lens harm to your treen by leaving them sill quite unpruned, than to allow ignorant experiments to be made upon them," and Mr. Wilkn, like Mr. Pearioo, is writing for the "ordinary amateur." J. Simpoon,

\section*{A FIRE. TREE.}

Frow the Foreign Office Report for Jals, 1895, on the agricultural products of Tolima, Colombin we extract the following particulars relative to the Chaparro tree (Rhopala obovata), and its monderfal facalty for aurviving under circumatances fatal to other forms of vegetation. It power of reisting the ravages of fire is particularly remarkable. Thus, we read that, in Tolima, "no conservation of the natural fertility of the land has ever been taken into consideration. Oa the contrary, the natural grasses, intermized with acrub or brashwood, hasto been aytematically burned from year to year, and the barnings effected during the most acorehing periods of drought. The principal object attained by thit process of despoliation is the reproduction of nen and tender herbage or pastarage, which, with the adrent of the rainy meason, forthwith covers the parched sarface.

This peraistent barning of the navannahs and hills for crops of renewod patarnge, plays desperate havoc with all other vegetation, tres, and brashwood. Isolated Palm trees, with thuir intensely hard trunks and endogenous arracture, together with groups of bruchwood in sheltered or hamid apota, nometimes withatand the fary of the flames. There is, however, one phenomennil excep \({ }^{-}\) tion to this subversive power of the Lires. A hamble tree, with contorted and rugged trualk and branchet
and eabrons leeves, a tree presenting the most abdued and weird aspect conceivable; thie pigmy tree not only resists the fary of the famer, but fire in actanlly congenial and abservient to itn existeace, for the tree, inatigated by the confagration, form itself into great plantations. The name of this tree is Chaparro (Rhopala obovata), indigenou to Colombia and other South American countriep. It attains height of 15 to 20 feet, and it distorted trunks measare from 3 to 12 inches in dimmeter. It is widely diatribated in Colombia, for I have found it at the Sierra Nevade of Santa Marta, and
plantations. There is a popular belief in Tolima, where alluvial gold abounds, that this tree flourishen only on thone sedactive lands, nerviag as aguide to searchers after the precion metal.
"The bark of the tree is peculiarly constituted. It conaists of a congeries of integuments or semi detached layera. The outer portion, about \(\frac{3}{3}\) inch thick, performe no organic fanction, and this portion of the bark, in conjunction with it peculiar compoaition, protects the inner vital integument from idjury by fire.
"The form and structure of the tree may have


Fig. 81. - ODONTOGLOSSUM COBONARIUM,
(In the Gardens of W. W. Groves, Eeq., The Larches, Alderley Edge, Chashirs.)
dispersed inland 1000 mile from the sea. In contact with the great foreat, it maintains a precarious existence. Bat, as already explained, it unurpa dominion in places where no other tree can grow. In Tolima it abounds on the slopes and ridges of the hill at elevations from 1000 to 3500 feet. In this department alone handreds of equare miles of the lower hills, which have been reduced to aterility by incesant burninge, are occupied by this diminative tree, and it assumes the aspect of vant aystematically formed and well-kept plantations. Thi is more than a triumph of the 'survival of the fittest.'
"It is very remarkable that these fire-begoten plantations are nowhere crowded to excest ; on the contrary, the trees are so regularly placed that their sapect vies with that of the most carefully-formed
originated from the eovere ordeal through which it has aurvived. For instance, according to the theory of natural election, tome animale when they migrate into a colder climate become covered with thicker fur. At we have teen with regard to thie plant, the powers of nature have been encroached upon, ie. the plant having emerged from a state of nature it has made for itaelf a law of ite own, for it hae triamphed over the moat dianatron element to all organic life.
"The hundreds of quare miles of worn-out latd covered by this beneficent tree in Tolima alone are andergoing a nlow process of amelioration, which, moreover, could be easily accelerated by the interposition of a fow vimple devicer.
"It is noteworthy that the Chaparro prefer the
sloper and ridges of the hill to the fiat savanuahy on which it is seldom found in any conaiderable quantity, though widely dispersed. Fire rages with far greater fury on the slopes and ridges of the hills than on the plaine. I, however, nttrihate thi preference of the plant for the hill-aides to the pernicious infaence of the accumalation of water on the plains daring the rainy season.
"The illutrious Humboldt, during his travels in South America, noted the dieperal of this plant on the vat llanom atretching from the Orinoco, \&c. These llanos are, for the most part, dentitute of vegetation other than Graminese. The only trees that were found on many parts of these dreary wates were pecimen of Chaparro, and in more hamid epote a Palm. Thus, referring to the llano which he traversed, he aays, 'for many iquare miles not a tree to be seen, but where a few solitary trees are foand they are, is humid diatricts, the Mauritia l'alm, and in arid pote the Rhopala complicata.'
"Vast deserts and nemi-denerts abound throughout the tropical world, many hundred of thouaand of qquare mile:. It may be that the Cbaparro in deatined to play an important part in the reclamation of these illimitable wates, for the decomposed leaven gradually form a cruat of vegetable mould."

\section*{ODONTOGLOSSUM NARIUM.}

The mpecimen of Odontoglosum coronariom in the collection of Wm. W. Groves, Esq, The Larches, Alderley Edge, Chenhire, is notable one. It in growing in a equare teak raft abcut '2 feet quare in a mixture in which growing sphagnum mose predominates; the whole aurface is a living mase of sphagnam, and beautiful it looks with the great coriaceous peado-bulbs attached to rhizomes apring. ing from its midat. There are eleven auch pseudobulbs clad with leaves, and other rid of them forming feeding auxliaries. The representation (tig. 84), shows the habit of the apecies, and ind cates in a measure the atiff leathery-like leaves crowning the peeudo-bulbs, which are ovate and entire, and thick and leathery. The fower-spike apringe from the matured growth; and even the second from the lead which is thoroughly matured, must wait its turn for floral development. The spike is carried on a atrong footstalk, and the flowers are crowded to uther not anlike a Hyacinth spike. There are twenty-four auch flowern on the stalk, each of which is about the size and form of an ordinary O. crispum. The dorval sepal is ovate; and the two inferior one rcci-linear-ovate; the colour ia rich sienna with golden crimped edgen; the petals are ovate, bluntly acuminate, with golden cioads abining throogh the sienna-ground. The lip is ensiform, the throat bright, a brown crest, and an orange base; the column is thort, almost sesaile, with the wing yellowish, tinted with Indian-red. The freckled-coloured column imparts a certain atyle of beanty to an otterwise diatingainhed member of the tooth-tongued Oncid. It is kept in the cool air of the : ©dontoglonum-house, and is afforded a copious rapply of moiature. The plant is now so large, that we may expect to see it flowering year by year. No check in the way of drying, or pushing with extra heat is at any time practived. Mr. Groves' beautiful plant is ander the charge of Mr. Edwin Robertshaw, who is caltivating not only the Orehid, but all the other department under his cbarge, with marked ability. J. \(A\).

\section*{OUR P O ULTRY. \\ By Harrison Weir. \\ (Copyright.) \\ (Continued trom p. 238.)}

A: shown, the introduction of the Sbang-hai and Cochin fowl has had the effect of aerionaly depreciating many of our Eaglish breed for table parpoces; the large coarse bones, thick akin, and lack of brest meat, conpled with a considerable amount of fat, and a peraintency for incubation, has rendered the
crossing with the old Eaglish fowl both dark fleshed avd strong in flavoar, and to most persons' thinking unpa'a:able. And yet this crossing and recrossing, and Mongulising goes on, and seemingly with the approval of a pablic apparently ignorant of what a goo3, really good, high quality fowl ahould be.
Ba; another mischief has arisen, and that in, that there is a supposition that a baff or coloured egg possesten greater richness of llavour, and is more nutritive than the old Kant, Sassex, and Surrey foxl's white egge, forgetfal, of coures, thas not only does mach depend on the food, rans, the wools or pastures to which the stock is confined or has access, and a'so what the one and the other bas to maintain in fall health, and deliver when hatched the nameizzd chick; therefore, the difference, if difference there it, must be very slight indeed, if any, possibly that of the higher clase table-fowl, may be more delicate. Bat the absurd preference by some for a coloured egg shell goea far to prevent the farmar and raicer of poaltry from having any but those of tha Asiatic cross, becana there is in some localtien, though happily not io all, a more ready anle for theas than the purely white. For my own part, I prefer the fine-shelled white, sach as the Himburghs and old Eaglish game, or the larger \(K \rightarrow a t\), Sassex and Surrey old breeds.
Next, I muat call attention to an excellent breed of French origin, called "Houdane." These came into favour some forty years aince, and gained at oncs much notic, and that of a favourable character, an being unefal for the table, and layers of an unuaual quantity of medium-sized white eggr; they sre evidently a cross with what is now termed the Polish" and the old five-toed foxl, that has been known both in France and England for centuries. They are good foragers, and of a medium nize, rather abort on the leg than otherwise, with round, fall, plump breaste, though longer in the body than our old Kents, the flesh is white and delicate, and they generally fatten well. On their first importation, they showad more clearly their origin, baving but small sop knote, and the cavernous nostrils of the Pulish or Hambargh, and the large frames of our five-toed fowle, which is also a part of their development. Their colour, when first brought into notice here, was white speckled with black, with mainly, if not sometimes entirely, white legs. Now, so fashion willa it, they are black with white apeckles and dark lega freckled with white, and the top-knote are conaiderably enlarged, to their detriment as a farm- yard or farmer's fowl, insumuch as it is liable to get clogged with mad, and to render seeing someWhat difficalt; atill they may yet be considered both areful and ornamental. I have not found them to be rood sitters, and some strains are said not to incabate at all. The chickens are very fragile, and if the weather be wet and rainy, they are difficult to rear; and are, I think, very liable to croap or severe coldr, unleas they have perfect freedom, and are allowed in suramer time to "roost out," which they will readily do, being excelleat flyerv. I may here mention that most pualtry is benefited by having as mach air as possible. Life in the open, in woods, cart lodges, \&c, suits them far better than hen-houses. My own, juat baitt, have no fronts to them, or if it is necesary on sccount of fozes, wire fronts might bs pat. with wire-netted doors. Many years ago I adopt d this plan, and found it wort auccessfut, though evin then many of the fowls, both young and old, would roort in the trees or on the faggotestacks, and this even in winter.
Nox that I have written thus far on the wabject, I would like to call the attention of my readere to the fact, that if they require ang information on the subjectis a'ready dealt with, I shall bo moat ready to give it as far an I am able, aud alro to receive letters of experience of the variou moat welcome; and gerdenert, \&cc., which will be moat welcome; and for this reason, that it is well to know of the diferent breeds under certain confreotom in high, low, damp in runs, of of perfect be it snown that ander such varied cocalitien, for
narroundings, poultry, like all elze, is often materially altered either for the better or the worse, and some breeds more than others.
Taere are other French breed besides the Houdsn; the best, ponsibly, is the "Cièvecoasr." It is a fiae, large, handsome fowl, broad
and thick made, and is black, with a top-knot, and thick made, and is black, with a top-knot,
muffled and bearded. The carriage is upright, and nomemhat imposiag, the tail large and full, and carried high; the legs are black. But as a tableto al it atands in high estem, both here and on the Continent, where, when well fatted, it fetches very high prices, the les'3 baing remarkably white, short in fibre, rich and delicions, besides which it is wellproportioned, with a large, full breast. It is not quite adapted to our climate, oftentimes safering from weaknens of the legs, and is sabject to colds and catarrh. It is not what may be termed a good layer; but in this respect nome are better than otherg. The chickens also are not over-hardy, but generally do well after they have got their "headfeathering." They require keeping warm and dry, and when the land is wet it is almost sure to bring dieaster, if not total extioction; and yet when all thing are favourable, there are few better fowla for the table, if any, when black lege is not a consideration.

\section*{The Wegk's Work.}

\section*{THE FLOWGR GARDEN.}

\section*{By Bailey Wadds, Gardener, Birdsall Gardens, York.}
rockeries and hardy ferneries.-Carefu! attention should now be afforded strong-growing trailing plante, thinning, and making them trim, so that they do not overgrow maller and more delicate plantr. Remove decayed foliage and flowers from all plants, pricking over and top-dressing the soil about Ferns and alpine plants. For the latter purpose use loam, mill-atone grit, leaf and peaty soil, panhing it into the crevicer, and covering the roots that heve become exposed. The planting of Crocus, Talips, Squilis, and other balbs and apring flowering plants thinly in vacant places about the rockery affords brightnesa in the spring month. Fillen leaves should be gathered ap frequently, as if allowed to lie about, the plants are rendered tender, and liable to ir jary by fros?. If the formation of a rockery is contemplated, there is anally more time at this season than any other to do the work. The question of introducing rock work into flower garden should be carefully consiáered before it is undertaken, as there are much labour and expense attending its formation, and the resalts are not always satisfactory. It should always be of a size proportionate to the size of the garden. As a rule, rock or mounds of roots are not nice in fine gardene, but they may be made interesting and effective when arranged with trees and shrubs as an approach to a kitchen garden or other department. If it is intended to cultivate alpine plante apon the rockery, a knowledge of the requirements of the plante to be grown is very necessary, some apecies requiring shade, others partial sanshine, and others again fall munhine. The beet place for alpines is the rockery, and the worst the rootery. The soil may consiat of loam, leaf-mould, and peat, warying in depth from 3 to 18 inches. Roots nad atamps of trees may be used with advantage for the formation of mounds for Ferns, herbage ceoas, perennial, and trailing plantr. In all arrangements of this description a good sapply of water in necesaary for forming basins, fallo, and fountains, and it should not ba forgotten that perfect drainage in necessary in a rockery. Limeatone, sandatone (millstone grit) are the best norta of atone to ure. Good varieties of alpine planta are obtainable at many good nurserien, to that it is not necesary that I give a long list of namen in this article. Many of them are extremely beantiful in spring and throughout the ammer, and their cultivation, if mometimes associated with difficulties of various kinds, is a source of great pleasare to lover of plant. The ame may be asid of the Ferne cultivated on rockeries and rooterien, of which there are namerous apecies and varietien, and nome are indigenous to Britain. Providing there are shade, moitare, and variety of arpect, Forns neper faill to

THE KITCHIN GARDMM.
By Joerr Lambert, Gardener, Povis Carkle, Welehpoed,
REFUSE HEAPS. -The weather having become wet, the garden work men will be emploged at jobs which do not involve the trampling of the soil, and one of these is the tarning over, siffing, and mixing together of the accumalations of various kinde commonis called rubbish heapa. The rougher portions may be thrown into large heapp, loog
stable litter being mixed with them, mixing is stable litter being mixed with them, mixing is
altogether in one large heap. This mates tin cellent dressing for various. crops when ex. rotted. Common salt or lime may be added u the work proceeds, bat not both to the same bees. In two years such a heap of materials will be quitity
ready for use, if it ha been well tarned one ready for use, if it hav been well tarned over once or twice. Some refuse can only be dealt with by bana. ing or charring-that is, by an open fire or a conmy one. Whichever method is alopted, the nemiay
should bs ecreened, and pat by for use. Chume refuse is one of the fineat thinga for a gromer to bave a good stock of for other parponer buita those of the kitchen garden.

TOMATOS, - No Tomato fruits should have beas kept outside till this date, but all with a faint tinge of colour should be got inside. A good plan mbero many fruits are yet left on the plants in a quith green state is to cat a good portion of the atem, wd put a tie to it, and hang it up in a cool rinery or Peach-honse, where, if kept dry, they will ripen on and afford fruits for a long time.

CARDOON8.-All thuse plants which are appro. tected by hay-bands may now be bound round. Soil may be puts to the atems when it is in a fit condition for the parpose. Thia vegetable is not grown no mach as it deserves to be, because perhapsitit bat littio known to c coke or their employers, bat once nent into the kitchen it is generally asked for again, making as it does a little variety in the list of vegetables, Atier blanching, if there is fear of the atems rotting from moiature, take them ap, but leave the hay-bands round them, and atand them in nome cool dark plaes, where they will keep for a considerable length of time.

\section*{THY HARDY FRUIT GARDEN.}

By W. POpe, Gardener, Highclers Casthe, Newbwry.
PEACHES AND NECTARINES ON WALL8.-Thes trees may be lightly switched over with a new birchbroom in the direction of the branches, not in the reverse way, or the bads will get injured. By thus detaching those leaves that have done their work and are ready to fall, anshine will be enabled to mature the present year'g shoots. If theme were laid in too thickly, it will be well to lessen their numbers even at this late date, rather than leave them until the apring praning. A distance of 10 to 12 inches apart is close enough for bearing-wood to be laid-in, though it is the more common practice to lay-in the mmmer thoots very much closer than that, and the realt is green, halfripened wood, and hosts of insect beneath the closs canopy of leaves. Half the failures in out-door Peach calture are due to too-close training, and the consequent immaturity of the hoots. When most of the foliage is cleared off, the trees may be nit nailed, and the branches loosely buadled up with trips of bast, fastening them to the wall bere and there, 10 as to prevent injury from the wind; thin will tend to still forther harden the young shoots by allowing a free circulation of air about them, and it will also afford an opportunity for atopping ap all nail-holes and pointing the brickwork, a job that is beat done before evere weather sets in. If lifting and tranoplanting operation have to be done, these hould be undertaken without delay, taking care in disging ap tho treen to preserve as many of the fibrou root as posuible, but ampatating the larger roots with a starp lnife after the treen are out of the ground. A few wheelbarrow-load. of fresh turf losm should be worked carofully in smongat and placed over the roots as the planting proceeds, and the ataple soil, if fairly good, may be used to finilit off with. In the planting of all fruit treet, bottom of the hole in which the tree will stand should not be more than 10 inches below the nitrace when firmly trodden regularly all over, and the ready for the reception of tree; and nome of the roots may be laid at this depth, bat the greates number at tarious depthe up to within 2 to 3 incbels of the eariace of the border. There will inevisthe be some smount of ninking; and at the finis bore newly-disturbed oil ought to stand 2 inches sbor
the level of the reat of the border, and the trees be loosely secared to the wall. Finally, malch the ground with balf-decajed manure.

HINTB ON WORK IN GENERAL.-In any open weather, rua the hoe through the froit-quarters, to cat of all small weeds that may have aprang ap, and to keep the suil in a healchy condition. Nawly-formed Strawberry plantation will be benefited by the same kind of labour. Continue to make preparation for the planting of frait trees, if sach is contemplated, bearing in mind that planting in wellprepared soil at this season is a season gained. As soon as the trees arrive from the nursery, unpack them without delay, and lay them in damp soll till the planting can be done. Saitable permanent labele should be got in readiness for each tree, stout atales, fce, and whatever else is likely to be required.

\section*{TER ORCHID HOUBES}

By W. H. Wherte, Orchid Grower, Burford, Dorking.
vanla tricolor.-Few Orchid have a more atately appearance, in or out of flower, than Vandas of the tricolor section, bat unfortunately, from wrong ireatment, they often lose a number of their lower leave during the growing teason, and eapecially after a hot dry summer. Sometimes this is caused by allowing the plants to carry too many flowera, but it is usaally the result of high temperatare combined with aridity in the atmosphere, or it may be caused by subjecting the plants to a severe drying off in winter-a procesm many growers think essential to their free flowering. Give them fair, generou treatment, and no difficulty need be experienced in growing and blooming the plants. All that is necessary is an even intermediate temperatare, a constantly moist atmonphere, accompanied by more light (but not direct hot anshine), and more air than in generally afforded them. If no proper inter-mediate-hoane is at command, I would place the plante together at the cooler end of the Cattleya division, keep a decidedly moist atmosphere sbout them, and use the ventilators freely whenever the external air should be more than \(50^{\circ}\). Oar planta are now in a similar position, and the bottom ventilators nearest to them are more or less open, oven during very cold weather. If any diatarbance at the roote is necessary, this in the best sesson of the year for the work, an less foliage is likely to be lost than when the operation is done in the epring. When repotting, carefully pick out all the old crock: and decayed material, and if any roots are clinging to the nides of the pot, ute all the care possible to detach them. At a rule, a number of living root will be found well up the atem, and the base of the stem may be cut off no far, that when the plant is tranaferred to the new pot the lowermost leave will be on a level with the rim. From 2 to 3 inches of large crocks in the bottom of the pot will be afficient drainage. Lay over these a little aphagnum-moss, and then place the roots, bringing them well up to the sarface, and work in amongat them clean picked aphagnam-mon and crocks, at the rate of one-half of each. Fill up to within half an inch of the top, presa it down firmly, and finish off with living sphagnum-moss. After potting, tie each atem in an upright position to a strong neat atake, as any awaying about will cause los of leaves. Any of the large fethy sërial roote that are long enough may be carefully pegged down on the surface of the mons; these will in time root in the moss, and help the plants to grow vigorously. Large healthy specimens, which bave afficient room for further development, will only need to be re-surfaced with living sphagnam; but if there be any suspicion of the monslow down in the pot having become decomposed, it ahould be carefully picked out from between the roots, and replaced with fresh material. Those repotted will require shade, and no water need be afforded for several days, after which give them a thorough saturation. The mos on the surface will soon become dry again, when it should be lightly aprinkled over, and kept growing in this way until each plant has re-eatablished iteelf, when more root-wateringe may be afforded. If the plant are not strong or well rooted, it in best to remove their flower-spikes for one or two seasons, and give them a generous growing treatment. One of the essantial requirements of thir clase of Vanda is a cool moist atage for them to atand upon, and that their immediate surrounding should be kept hamid by ayringing between the pota two or three times a day, which in far more beneficial to the plants than affording large quantities of water to the roote through the compost.

INTERMEDIATE ORCHIDS. - The night are now mach colder, and on two or three occations we have had several degrees of frost, therefore the following Orchid that have been growing in the cool-house daring the past numer should be placed in the cooleat part of the intermediate-houte, where they will get abundance of light and air. Miltonia vezillaria, M. Phalxaopain, M. Wartcewiczii, Dendrobiam Wattianum, D. longicornu, D. infuodibalum, and it va-iety, Jamesianuco, Masdevallia tovarennis, M Schlimi, M. ephippiam, and all thone of the Chimæra section, Lalia harpodhylla, L. monopbylla, Odontoglosaum Kramerii, Oacidiam bifrons, and Cryptophoranthus Dayanus.

\section*{PLANTB UNDER GLABg.}

By W. H. 8 smrth, Gardener, West Deas Park, Chichester, FORCINA-hOUBE.-Where large quantitie of cut flowers are in request throughout the winter and early pring, a proper kind of forcing-house chould alway be available. Failing a proper forcing-bouse, a Melon-house is not an unauitable atracture for thi purpose, if atrong bottom-heat be available. The bed ahould be filled with clean, fresh leaves of the Oak, Beech, or Cheatnut, preferably, and these thould be trodden down evenly and firmly, and when heat has risen, the plants may be plunged, or half-planged, whichever is safer. Take care that violent heasing does not occur. A few Azalea indica may be put in at once. The varieties Deutache Perle, indica alba, and amcoan, will conee on rapidly; also put in a batch of Richardias, Poinsettia pulcherrims, paper-white Narcisasus, Taberosem, Roman Hyacinths, and a few Lilace, of which Charles X. will be found to foree excellently. Shoald the whole of the bouse not be required for forcing purposes, it will be saitable for bringing on plants of Gardenias or Eucharis amazonica which have been rested for a time. These abould be thoroughly cleaned of insects, especially mealy-bag, and planged up to the rim of the pota in the leaf-bed, receiving a thorough watering at the anme time. Keep the plant in the bouse ayringed daily, and afford plenty of moistare on the floors, \&ce.

FRANCOAS. - These are uneful plants for house or conservatory decoration, and as the old plante are now making freah growth, no time shoald be lout in dividing each into about three small ones. A compost consisting of good loam, leaf-ail, and aharp and is excellent for them. After potting the pieces, water them aparingly until well rooted, when more liberal supplies may be afforded. The offeet: which come from the base of the plante, if taken off and inserted in mall pots, and placed under hand-lights in a heated frame, quickly make nice plante. When rooted, they should be repotted and grown on, and they will flower well next sammer. A temperatare of about \(50^{\circ}\) by night to \(55^{\circ}\) by day, will bo quite warm enough during the winter.

InIs RETICULATA FOR EARLY FORCING.-This species hat a very lovely and aweet-scented fower, which may be had quite easily by Chriatmas, if potted in 6-inch pote in lomm, leaf-noil, cowmanare, and sand; when potted, cover the pots with cocoa-nut fibre till an \(\frac{1}{2}\) inch of growth has been made, and the pote are illed with roots. Then place them in a cold frame for a week or two, and tate in to the greenhonse or any house or frame where a temperatare of \(45^{\circ}\) by night to \(55^{\circ}\) by day is maintained. Good varietie are Iris reticalata, I. reticalata major, and I. reticulata Krelagei.
bulbs for early forcina.-Roman Hyacinths will now have commenced to grow, and hould be removed from the plunging material and placed in cold frames, gradually exposing them to the light, and in a few daya a betch may be brought into heat, according to the quantity required. Paper-white Narcisnus and Double Roman Narcinaus will also be ready for removing into cold frames. Snowflake is a great improvement on the old paper-white Narciamu. Some of the bett varieties of early Talips for hard forcing are scarlet, white, yellow, and rose Duc Van Thol, white, acarlet, and yellow Pottebakker, Belle Alliance, Proserpine, and Canary Bird. These should be removed to a cold frame, and be brought into the forcing-pit as required. If early named Hyacinth have made half-an-inch of growth, they hould be removed and subjected to the same treatment as the above, but these mast be brought on more gradually or they will not flower satisfactorilv. Good varietiea for early work are Norma, La Neige, Blanchard, Albertiu, Minn Nightingale, Géneral Lauristan, Baron Van Tayll, Diaraeli, and Delicata.

ERUITB UNDER GLABS.
By Richard Parken, Gardener, Goodwood. Chicherter,
the late vinerieg. -The vinery containing Lady Downe: and other late-keeping Crapes, need close watching, for although the banchee are ripe and properly coloured, gentle artificial warmeh will be very neceasary at night and during dull weather to ensure their keeping without loss. The air in the vinery thould be buoyant and dry, and to that intent no water ahould be uned or spilled in the vinery. The variefy Gro Colmar will continue to attain colorr for some time yet, if a warm brik temperature be kept ap.

PRUNINQ.-Peach and Nectarine treen may now have all the weak shoote, and those not required for bailding up the trees, cat out before the leaves fall, an it can then be better seen which boots aboald te removed. If the trees were disbudded in the epring, a small amount of pruning will now be reyaired, i.e., if only a afficient number of ahoot were retained to furnish the fruiting shoots for the next season. The orject of the grower should be the production of shoot of medium length and of about the thickness of a goose-quill, which, if allowed room for leaf-development, become well matured. When as many aboote are allowed to grow as are produced, there is much loss of strength, and the crop of fruit saffers in coasequence. When praning any tree which han not been properly diabadded, good fruitful shoote should be saved near to the base of each main branch to form the material with which to cover the trellis an these become anfruitful. All weak growths should be hortened, thus strengthening them. It is useless to severely prane any tree which produces great quantities of grons whoote, as thia only aggravaces the evil, such growth seldom ripening afficiently to form flowerbude. Is is far better to examine the roots, by opening out a trench in front of the tree in the uasal manner, and several ffeet distant from the stem, cutting off all strong roots going down deep into the soil, and preserving all mall fibry root moatly foand near the arface. If the noil contains much manare, the trench should be filledin with oldinary garden mould and lime-rubbiah ramming it frmly. This will cause a leas vigorons growth, and bring the tree in a year into a fruitful condition. In order that plenty of aunlight may reach all parta of a tree, the fruiting shoots should not be left cloaer together than 4 incher.

FIG8.-If the shoote were atopped at the point at different times daring the past anmmer, growth will now have ceased, and Figa be viaible at the tipa of the shoote. Thene mut therefore not be ahortened, except in cate of thin and weak thoots. With planted-out trees it may even be necessary to briog up a sucker from the base occanionally, to take the place of or lay-in over old bare branches. [Grafling answers well in auch a case. Ed.]

CHERRIES are generally apurred-in during the growing meason, but all leading shoot should be allowed to extend to the limits of the wall or trellis. Cherrien may be managed accenfally for year withoat the use of the knife. Severe praning often produces gumming and other evils.

PLUMS AND APRICOTS should be managed in much the same manner as Cherries, and in all casea the trees should be so manipalated during the nummer, that bat very little aseles wood will require to be cat out at the present eason, not omitting to keep the bate of the trees furnished with young hoots.

A New Competitor in the Butter MARKET.-Daring the last few years dairymon have affered severely by the increased manufncture of American Creamery, atill cheaper article, and one more calculated to deceive the unwary parchaser, has been discovered in Cocoa-nut butter, which is produced from the oil of the Cocom-nut. It is atated that a company already engaged in manufactuting Cocos-nut butter is sending it out at the rate of 5000 lb . daily, and will in a thort time increase it output to \(10,000 \mathrm{lb}\). per day. "Elaborate preparation," aays the ame paper, "are being made for catering to the foreign and domestic trade, and our dairymen mut uffer thereby. Another nas for the peutral which they make is in the manufacture of filled cheese. It in far superior to lard neutral, and much cheaper, besides harder to detect, sud eanier to emalaify with the skim-milk. Taken altogether, it is a dangeroun competitor, and one to demand imocediate ccusideration."

\title{
appointments for the ensuing week.
}

MEETING.
TUESDAY. OcT. \(29\left\{\begin{array}{l}\text { Royal Horticultural Society's Com- } \\ \text { mittees. at the Drill Hall, James } \\ \text { gren }\end{array}\right.\) mittees. at the Drill


OORREOTED AVERAGE TEMPFRATURE FOR THE ENSUING WREK, DEDUCORD PROM THE OBSEBVATIONS OF FORTY-THREE IRAMS. AT OEISWIOK.-48.2.

The Institute of France in ite Relation to Botany and Rorticulture

This week the Institute of Franoe celebrates its centenary, having heen founded-or rather reorganised, for a somewhat similar institution dates from the time of Richelibu-on October 25, 1795. With the general constitation of this assembly, with its history and position at the present day, it is not the parpose of this article to deal. Our intention is to give a short sketch of some of the most famous botanists who have had a share in the history of the Institute, and to see how botany has fared during the Institate's long and somewhat stormy life. The Institute to-day is divided into five sectiona, oalled Aosdemies, and it is with the Académie des Eviences, and enpecially with the eighth section of this body, viz., the botanioal section, that we are chielly ooncerned. In this section there are six members, namely, MM. Naldin, Trecle, Chatin, Ian Tieghem, Bornbt, and Gitignard; while among the ten correspondents of the botanioal section, are to be found the namea of Sir Joseph Hookre, M. N. Pringehrim, Dr. Maxwbll T. Masters, and Dr. Trecre of the botanical garden at Buitenzorg in Java. There are four prizes at the disposal of this section: the Prix Barbier, to be awarded yearly to him who makes the most important discorery in the argieal, medical, or pharmacentical sciences, or in brtany applied to the art of healing; the Prix Desmazierese, warded to the writer of the most useful work on

Mélicocq (awarded every three years) for the best work on the botany of the North of France ; and lastly, the Prix Montagne.

The Academy of Sciences originated in the seventeenth century, in a private society of soientific men, who had for some thirty yeara been aconstomed to meet at various houses. The idea of giving an offioial status to this body was due to Louis XIV. and his Minister Colbert. At the outset the members were divided into two seotions, the mathematicians and the physicists, and under this latter heading were grouped together naturalists, botanists, physiologists, and those men of science whose provinoe was the study of natural philosophy.
At the time of the Revolution, we find that the members of the National Convention had not muoh better ideas as to the classifioation of the sciences than its earlier patrons. They evidently meant to keep a tight hold on the Academy of Soiences, and to assume direct control over the members. They allotted to the same section two sciences so distinct as botany and general physics, and they showed the practioal bent of their minds by giving great prominence to the study of practical agriculture. Whilst the Instituce was annually to choose twenty persons to travel at the expense of the State for the purpose of collecting observations upon farming, it was decided that six would be suffioient to glean, in every part of the world, the facts which related to all other branches of knowledge, including geography. "It is well known that at a period when by the help of the maximum," says a writer on this period of Frenoh history, "the horrors of famice had spread over the whole of France, the Convention adopted a language of hypocritical sensibility, borrowed ohiefly from agricultare and gardening, and whioh would sometimes have led a stranger who entered the chamber of the Committee of Pablio Safety to believe himself transported to happy Aroadia."
In the chronicles of the time we find it written that Robespierre might often be seen walking with a large bouquet of flowers in the garden of the Tuileries, whioh had been planted with Potaton!

Vogetables were then held in great honour, and were introduced everywhere, even into the almanack. Every day of the year had a separate title given it by the National Convention, and these names were as often as not taken from the farm; one was called Carrot, another Cabbage, a third Ass, a fourth Hog. But space will not allow us to linger any longer on this stirring period of French history. Our business is with the botanists and the science to which they devote themselves. It is related that the illustrious botanist, Adanson, a member of the old Aoadeny of Sciences, who endowed soience with many novel and pregnant ideas, was reduced, during the reign of terror, to working by the uncertain glimmer of his soanty fire for want of a lamp. When the Aoademy was refounded and incorporated as a section of the Institute of France, he was summoned to take his p'ace as one of the new members of this body. He replied to this invitation that he was unable to attend for want of a pair of shoes! Napolion extended his patronage to the Institute, though he made its members feel the power of hil sway.
One of the earliest botanists who was a memher of the Académie Royale des Sciences was Jobbph Pitton de Tocranefort, and many of his memoirs are to be found in the proceedings of this body, of which he was elected a member in 1692. Sad to relate, be met his death when on his way to take part in one of the meetings of the academy. Somehow or other his breast
was pressed by the axle of a carriage, and be died in 1708. He is universally acknomledged to have been the greatest botanist of his time, and it was by his skill and oare that the King of France's gardens, almost quite neglected and abandoned before, were afterwards holden in honour, and thought worthy the attention of all the virtuosi in Europe.
Another of its earlier members was A. L df Jussieu, and his brother, Bermard, bale famous in botanical science. It was the younger Jussieu who first attempted to sabstitate a natural division of the whole regetable kiogdan into larger and gradually subordinate gropes, for mare arbitrary enumerations of smaller oos, ordinated groups.
Augustin de Candolle, strange to my, mere was elected a member of the Institute, 胡解 he was oertainly the most distinguished botaith of his age. His son, Alphonse, equally dintinguished, was, however, an associate member of this body.
In recent times, among the more celebuthat botanists have been Brongniart and Mrbbu; whilst Decaisne, Duchartre, and Nadobs, have special olaims upon horticalturists for the extent and importance of their labours in the application of scientifio knowledge to hortiolltare,
The Institute of France does not correspond exactly with any institution in this country, for the Royal Sooiety of London is solely connected with those branches of knowledge usually termed soienoes, and takes no aocount of litera ure, history, archrology, or painting. Besides, the Institute is distinotly a State-aided affir, and each member of the French Aoademy, bat not those of the othern, reocives a small indemnite of \(£ 60\) a year.

In oonclusion a word may be said as to the Comptes Rendus published by the Aodemy of Soiences every week. Here are to be fond brief memoirs of ourrent investigation by the foremost men of soience not only in France, but in other countries. It is to be wished that our Royal Society could see its way to publishing some such weekly record of its meetings, for botanists, no less than other men of soience, mal often regret that the publication of papers in the Royal Society's proceedings takes place so long after the reading of the papers. Society's Jubilee Society, that it is intended to
Celebration. celebrate the fiftieth anniversury
at

National Chryeanthemum Society's Jubiles

We learn from a ciroular insod of the founding of this Society in the month of November next year. From a modest beginning as the Stoke Newington Chrysanthemum Sociefy in 1846 , this energetically-conduoted Society his grown so rapidly of late years that it now possesses hin) enrolled members, pearly on huudred Fellows, and has affiliated to it mocieties than one handred Chrysanthemum Societies In the United Kingdom and the colonite, It has Sir Edwis Saundrrs for its Presidenh Trevor Lawrence, Bart., Sir H. W. Pers, Barl., Sir John D. Llewelyn, Bart., M.P, Thepold de Rothschild, Esi,y, and other influential gentlemen. The Society clains the having materially assisted in promoting the cultivation of the Chrysanthemam all orer tho country; and by awarding good prizes to well. grown plants and fine out blooms, and reoognising hy means of its Certificates, novelties in Chric. anthemume, to hav a hel ped to popularise the flower to no small extent. No one anquainted with the general adrances made in the cultivation of the plant will question the correctanse of this sures

tion. These are among some of its more notable endeavours and aims, and they have been so generally sucoessful amongst amateurs of all grades and gardeners in general, that it is now extremely rare to see a badly cultivated Chrysanthemom plant or ill-developed flowers, both of whioh were oommon enough in gardens twenty-five years ago. Tarning with pardonable pride as oonnoissears to the commercial aspeot of the plant, we could soaroely name acother plant whioh, in recent times, has so greatly benefited the cultivator and the dealer as has the Chrysanthemum, and more espeoially the Japanese varieties. There may not be so muoh "money in it" as there is alleged to be in Orohids, although that assertion seems to be refuted by the numerous small nurseries and florists' establishments which have sprung up everywhere round large towns in which the C'hrysanthemum figures largely amongst the different sabjeots cultivated in them; and it is a fact that cannot be controverted, that the demand for cut flowers of the Japanese varieties has immensely increased in the last few years, the public paying good prioes to the florists for wellfinished blooms of oertain telling shades of colour, or those whioh oome early into the market; so that is a far greater gain all round than the making of two blades of grass grow in the place of one. Good oulture in this case implies also an increased demand for suitable soils, for pots, special manures, suoh as sulphate of ammonia, nitrate of sodi, potash, and others, together with a desire on the part of the cultivator for fuller knowledge in the methods of safely employing these useful artifioial aids to the oultivation of the plants, and eventually to their use on other garden plants.
We may be inolined to deplore the incresse of speoial societies, and wish to see them brought under one general head as regards those existing iu, or of which London is the head-quarters; but seeing the very great ramifications of the National Cbrysanthemam Society, and its very conspicuous virility, it will remain a debateable question with many, if affiliated to the Royal Horticultural Society, its progresa, and its power for usefulness, would have been what they are at the present time.

The following is the official programme. The Jabilee celebration will take the form of :
1. An immense exhibition of Chrysanthemums in Lor don in 1896, in which all typer of the flower will he fully represented, and which will extend over four dayp, with an entire reconatruction of the exhibition on the third day.
2. A grand opening caremony and private view at noon on the firat day.
3. A conference of Chryanthemum growere and raisers from all parts of the world.
4. A Jubilee Binquet at the Hôsel Máropole, and other feative gatheringa.

The atriking of Jabilee Medals of value for competition, and for rewarding anch persons at have rendered conapicuous services in promoting the \({ }^{\text {adivancement, caltivation, and improvement of the }}\) Chryaanthemum.
6. The preparation and pablication of an exhauative Jabilee catalogne of Caryeanthemume, with the most complete clasificatior.

In order to efficiently carry out the Jabilee Celebration, a Special Jabilee Fand has been formed, and it is calculated that the anm of \(£ 10,0\) will be required in order that the Celebration may be accomplished in a manner worthy of the high position occupied by the Suciety.

Sabnoribers of ten gninese will recsive two banquet tickete, and four apecial ticketa to admit to the oponing ceremonial and private riew, god during the threp following dayo,

Sabscribera of five guineas will receive one banquet ticket and two pecial ticket to admit to the opening ceremonial and private view, and during the three following day.

Subscribers of one guinea and upward will receive two tickets to admit to the opening ceremonial and private view, and daring the three following days.

Blue Mountainz, Jamaica (ree Supplementary Illuatration).-The fineat and wildeat acenery in the Weat Indien is to be found in the heart of the Blee Mountains of Jamaica. There are large forente containing Janiper, Cedar, Tacca (Podocarpus) Soapwood and Santa Maria treep, numerous cataract and waterfalls, and a climate a cool and p'easant as early summer in Eogland. In the illustration ia shown a portion of a monntain-torrent in the dry season, with a path above it leading to land cleared for Coffee and Cinchona, or posnibly to the provision grounds of the negroes. In the rainy teason this gorge would be full of raging, rushing water, carrying everything before it. On its alopes are found numerous Ferna, some of them the choicent apecies found in English greephousen. D. M. [The view is taken from a copyright photograph by Mensra. Vallentine \& Sons, Dandee, whose London agente are Menare. E dmann \& Scianz, 4, Salcott Road, Claphom Junction, S.W.]

The Royal Horticultural Society.Tte nest Fruit and Floral Meeting of the Royal Horticultural Society will be held on Tuesday, October 29, in the Drill Hall, Jame Street, Victoria Street, Wentminster. The committee will meet as uanal at 12 o'clock; and at 3 P.m. a lantern-alide lecture on Potatos will be delivered by Mr. A. W. Sotton.

The Promotion of Forebtry in Scotland, - It is atated in the Edinburgh Evening Digpatch. October 18, that the President of the Board of Agriculture is to receive a depatation from the Council of the Royal Scottiah Arboricultural Society in the Scottith Office, Parliament Square, Edinburgh, on Wednenday, October 23, when the view of the society will bs anbmitted upon the following peinta : (1) the advantages of a apparate cffice in Edinburgh under the Agricultural Department, to which an official haviog a particular knowledge of foreatry should be attached; (2) the preaent condition of foreatry in Scotland; (3) the great and increasing importance of forestry in Scotland; (4) the afforentation of wate land in Scotland; (5) the acquisition of a foreat area for experimental and educational parposes ; and (6) the limited facilities for obtaining forestry education in Scotland, as compared with Germany and other countries.

The horticultural Club.-The firat dinner and conversazione for the sesion 1895.96 , took place on Tuenday evening October 15 , and was in every reepect a mont acceasful commencement. The chair was occupied by Mr. Habry J. Veitcie, and there were present the Kign. W. Wilks and J. H. Pemberton, Measrs. Crowley, H. J. Pearion, C. E. Pearsod, J. H. Veitch, H. Turner, O. Thomas (Frogmore), and C. E. Shea. \(A\) very intereating acconnt was given by Mr. C. E. Pearson of a visit recently paid to Lap'and, Nova Zombla, and Kolgoney. The object of the expedition was, in the firat instance, ornithology, but Mr. Pearnon found time to make a goodly collection of botanical specimens, which had been moat carefuily and tastefully mounted by his niece, and were abmitted to the inspection of the members present. He atated that the flora was more alpine than arctic, as may be inferred from the fact that anch alpine geme as Eritrichiam nanam, perhape the crowning gem of alpines, is found in large quantities, as were alro Geatiana rerna, Myosotia alpestrib, Silene acaulif, and many other planta which are fonid in alpine districts ; but, curiously enough, in the whole of their ramblea they never came upon aingle Fern, The curious geological
formation of the country was described, the absence of rock in situ was remarked, as was also the fact that enormous boulders of various formations were to be found in large quantities, which had evidently been carried along by glacier action. The diacussion which followed wat participated in by most of those present, and a hearty vote of thanki was accorded to Mr. Pearson for his most interesting address.

National Robe Society.-At the lat committee meeting, held on the 15 sh inst., it was announced that Mr. Alexander Hill Grap, the diatinguished rosarisn at Beaulien, Newbridge, Bath, had offered a prize of five gaineas for the best esay on the "Hybridisation of Roses." Particulara and term will be thortly announced.

Railway Companies and Agricultural Produce.- Those of our reader who followed the diacassion on railway-rater and market garden produce in theme column in the years 1892, 1893, and 1894, will read with soms interest the following letter which appeared in the Times of October 22: -
"sir,-The Directors of the Great Eastern Railway have just taken a step which may have suoh important results for the agricultural interest that, although the procee lings I am about to refor to were of a semi-private character, I conceive that I commit no breach of oonfidonce in making the pubiic acquainted in your columns with their genoral scope and purpose.
"An invitation was addreseed by Lord Claud Eamiltox to a few leading agriculturiste representing the district served by the Great Erstern Railway, and to myself, to meet the directors and principal officials of the company with a view to ascertaining, in friendly conference, whether it could do anvthing to belp the agricultural interest. At the meeting, which took place to-day, an excellent feeling was shown, as well as an evident desire to arrive at a business-like conclusion, and esveral practical proposals were put forward on bshall of the agricultural interest, which Lord Claun promised, in the name of his colleagues, should receive careful attention.
'But to my mind, the most interesting aod siguificant thing abjut the meeting was that the moment we came to clcse quarters with the question of increased facilities and through rates for the carriage of home produce in bulk, it became, ne obvious to the whole meeting, as it has long been to myself, that a railway company, however willing, cannot extend thesa advantages to individual producers form and until, they on their part combine together to form an aseociation, which will undertake the collection, packing, and regular supply of produce at country dopota, and to whose agonts it can be consigned on arriving at its deatination.
"Some time ago, at the conclusion of the celebrated Southampton case, you were good enough to innert a letter from me on 'The Moral of Preferential Rates,' in which I argued that the solution of that vered question was to be found in an association of home producers,
"We hope to establich such an association very early in the new year. The fact that I brought to the meeting to-day a Written proposal for dealing with this part of the subject practically identical with the views which Lord Clavid Hamin TON, before he had seen it and without previous consultation with me, expressed in his opening speech from the cbair, is, I think, conclasive evidence that we are on the the cbair, is, I justifies me in expreseing a hope are on the right track, and deaire to Britishesing a hope that an your readers who market will support the new aseociation when the time comes. Your obedient servant,
" 6 , Bedford Square, London, W.C., Oct. 20.
Memorial to Robert Brown,-Oa Friday last an intereating oeremony took place at Montrone, when s memorial was uaveiled to Dr. Robt. Brown, the distinguished Scotch botaniat, in a niche in front of the house in which he wae born. The memorisl takes the form of a bronze bust considerably over life aizs, and is the gift of Mina Paton, a kinwoman of Robert Brown. Mr. D. W. Stevenvon, R S.A, it the aculptor. Robert Brown was the son of an Episcopalian clergyman, and was born December 21, 1773. In 1787 he entered at Marinchal College, Aberdeen, where he obtained the Rameay burnary in Philosophy. Two years sfterwards he removed to Efinburgh Uaiversity, where he completed his academical studies. His devotion to botany bore ith firat fruita daring these years in papers on the local flora. In 1795 he obsained the commisaion of ensigu and assiatant-sargeon in the newly-em. bodied Fifeshire Regim nt of Fencible Infentry, and he was atationed with it ia Ireland until 1798 , when he viaited Eagland and made the acquaintance of Sir Joseph Banka, and worked in his library. He returned to hir regimental datier in Ireland in 1799, and relinquished them in December of tho fol.
lowing year, when he was appointed naturalist to Flinders's Expedition to survey the cossts of Auntralia. On thisexpedition he wan absent four yeare, retarning with seme 4000 species of plants, a very large proportion new to science, and many of extraordinary interent as new types of plant structare. Much of this material he clasaified with minute accuracy during the voyage. Oa hil arrival in England, he was appointed librarian to the Linnean Society, abbsequently acceeding Dryander as librarian to Sir Joaeph Banks, and eventually becoming the first keeper of the Dapartment of Botany in the British Maseum on the transference to it of the Banksian collections. His acientific works gained for him a repatation scarcely equalled by'any botaniat before or mince, and he became a member of nearly every acientific society at home and abroad. He died in 1858. Short apeeches were delivered daring the course of the proceedinge by Mr. Carrathera, formerly librarian of the Butanical Department in the British Maseum ; Professor Balfoar of Edinburgh, Professor Bower of Glaggow; Professor Traill of Aberdeen, and Professor Geddes of Edinburgh. representing Scottish Universities; Mr. Marray, Keeper of the Botanical Dapartment of the Britigh Maseum; and Dr. Howden, Preaident of the Montrose Nataral History and Antiquarian Society; all the peakers teatifying to the great work of the greatest of British botanists. Daily Graphic, Saturday, October 19.

Meeting of the Brussels Orchidéenne.The meetings for the season 1895-6 have begun brilliaatly. Fifty fine Occhids were shown at the last meeting, and some of them deserve apecial mention. M. le Comte de Bousies showed Catcleya labiata atrorabene, of a dark purple coloar, hitberto nuknown. M. Van Imehoot nent Miltonia Blanti Labbersiana, with two floral racemen, and flowern of uncommon mize and colouring. M. Madoax staged Cattleya gigan, with a bloom of unusual dimenaions, the divisions pale in shade, lilac tinged with rose, the lip very large, dark purple, eyes bright yellow and very pure white; the habit remarkable. C. maxima marginata, from M. Linden, had a lip with a bright yellow lamel in the centre, the background and veins were violet-parple, and with a broad white margin; Zygopetalum intermedium moortebekense was the happy choice as an exhibit of a new firmthat of MM. Lacien Linden et Cie, who are established on the west side of Brasels, at Moortebeke; the flower of the Zggopetalum is remarkable for the lip, which has a white ground streaked with lilac-parple, with a very effective rose-coloared margin. M. Coppens exhibited Cattleya Warocqueana, the flower wan of excellent form, the petals especially are remarkable in aize. M. Van Imshoot showed Phaius xsmabilit, s hybrid raised by Mesars. J. Veitch \& Sona, which meets with general approval. I would also mention Cymbidium giganteum, from \(\mathbf{M}_{\text {. }}\) Van Imahoot; Vanda corrulea, from M. Flor. Pauwels, and having large flowers; Cattleya aurea, from M. Linden; C. gigas, from M. De Lombaerde ; Lellia elogans, from M. Linden ; and his group of Catclega maxima ; and aleo the hybrid Cypripedium from M. Madoux. A Botanical Certificate was awarded for Cirrhopetalum Medanex, Dendrobiam apecies, Eria specipa, and Bulbophyllum rufinam from M. Linden. Oacidiam ornithorhyncham and O. incurvam, from M. Pauwels ; also Cypripedium conanthum aperbam, from M. le Comte de Bounies, won Certificates for being well-flowered. \(C h\), de \(B\).

National Teatimonial to Mr. A. F. Barron, of Chiswick. -The retirement of Mr. A. F. Barron from the important position of superintendent of the Royal Horticaltural Society's gardens and exhibitions is regarded as a fitting occanion for presenting him with a teatimonial. Mr. Bankor's work in various directions has been of no ordinary character; and during the period of thirtycarried out many important trials Chinwick, he has in plant and fruit cultare ; he bas and experimente on the Vine sud Apple which are utananard treatises
thene fraita; bas officiated as Honorary Secretary of the Royal Gardenera' Orphan Fand, and in a variety of way he havexercised a most beneficent activity in rendering antistance to gardeners and gardening. The committee therefore confidently appeal for subacriptions towardu a fund for presenting Mr. Barron with some tangible mark of gratitude and eateem. In so doing the committee earneatly desire that all gardeners and lovers of their gardens shall have an opportanity, according to their means, of participating in a suitable acknowledgment of the long public services of one of the most worthy and eminent of British gardeners. The names of the committee were publifhed in the advertinement columns in our iseue for October 19.

Cornell University.-Amongot the new inatraction offered in horticalture in Cornell University daring the present year is a seminary upon the literature of horticultare and one upon greenhouse construction and management. These neminaries are really discussions or lymeum, for which all members have prepared themselves in advance. One person acts as leader (as set down in the schedales), bringing in his books and apecimens, whilst the listeners take noter and spontaneonaly discuss the varions points as they arise. These seminaries are wholly informal, and as they are composed entirely of advanced stadents, lively debates may be anticipated. Amongst the stadents enrolled are one or two professors of horticultare, one or two professional gardeners, botanists, and special advanced students in horticalture, some of whom will lead certain meeting*. In addition to the seminary work on greenhouses, there will be other hours devoted to drafting and the making of apecifications. The seminary in the literature of horticultare will have the advantage of Profensor Ballex's library, which is the largest private collection of horticaltural books, and which is probably the richest in American literature of any extant collection.

Sbminary on Literatere of Horticolture. Course 3. F. 11.
1 (Supto 27). The herbals.-Bailey.
2 (Oct. 4). Roman literatare-Lodeman.
3 (Oct. 11). Literature of landecapa gardening.Bailey.
4 (Uct. 18). Earopern Grape literature.-Lodeman.
5 (Oct. 25). American Grape literature.-B ailey.
6 (Nov. 1). French literatare.-Loderaso.
7 (Nov. 8). Early American literature.-Bailey.
8 (Nov. 15). German literature.-Lodeman.
9 (Nov. 22). Carrent American literature.-Bailey.
10 (Nov. 29). Eaglish literatare.-Lodemao.
11 (Dac. 6). Periodical and Experiment Siation literatare.-Bailey.
Skminary on Grerenhousrs.
Course 4. W. 11.
1 (Ost. 2). Erolution of the greenhonse.-Bailey. 2 (Oct. 9). Side-walle and foundations.-Manson.
3 (Ost. 16). Roofs.—Lodeman.
4 (Oct. 23). Interior arrangemente.-Bailey.
5 (Oct. 30). Heating. - Bailey.
6 (Nov. 6). Heating.-Bailey.
7 (Nov. 13). Ventilation.-Lodeman.
8 (Nov. 20). Gleve and glazing.-Blair.
9 (Nov. 27). Stylen of house for varions parposen -Lodeman
10 (Dec. 4). Watering.-Walker
11 (Dec. 11). Pots and soils.- Powell.
The Mildnees of the Seabon.--Mr. J. P. Sheldnn, writing to the Times of October 20 , from the Brand, Sheen, Ashboarne, under date October 19, says :-"As evidence of the abnormal fecundity of the period, I send you, herewith enclosed, bloom of Strawberry, Primose, and Crocas, and aleo a Rone-bud, all gathered this morning in my garden. Some little diatance off, a neighbour of mine has a Laburnum tree with a second crop of bloom upon it; I asw it this week. Probably I coald find farther evidence if I looked for it ; that which I now give came, at it were, quite casually to which Inow give came, at it were, quite casua,
hand. This place is 700 feet above sea-lerol."

Cheshunt, Wormley, and District hop. ticultural Mutual improvement Socery, -The unaal fortnightly meeting of thin Society wes held on Tharaday, October 17, at Tarnford. Mrs W. Harrison presided, and there was a good atterd. ance. Mr. A. J. Simons gave an able lectare on "Cyclamens and Cyclamen Growing," dealing with the origin, description, and varietien, propagation, time of germination, and all points connected mith the caltivation of the plant. An interesting dircuasion followed. A hearty vote of thankg mu accorded to Mr. Simons for his inatructive letron, A farther discassion then took place on the quiving of the most effectual method of eradicating "Meals bag on Vines." This created a good discaution, , mold after the experience of several members had ben given, the meeting terminated. The next metiing will be on Tharsday, November T, when Mr, J. \(\mathbb{K}_{\text {, }}\) Dean will contribate a lecture on "Peara."

Paune Culture in America, - Althungh Americs does not produce sufficient Pranes to meet her own demand, notwithatanding that tho quantities grown are very large, opinions are being circulated in that gooshead country that in a yome or two, with an extention of caltivation, and an average crop, "the local product is likely to eatirely force the foreign article from the markut;" and even further than this, the Americans are begining to think of a futare market for their Psune croph While the conumption of Prunes in the Uaited States is stated to be now as large as \(70,000,000 \mathrm{lt}\), a year, the total product last year amounted to between \(35,000,000\) and \(37,000,000 \mathrm{lb}\). Oregon, Washington, Idalio, and Arizona are all prodnciog Pranes to some extent, and in San Francico large areas of young orchards have yet to come into bearing. Whan all these contribate their quota to the annual outpat, California's gield will be doabled, In view of these factu, it is maid, "The outlook for Prane growern is not very encouraging, anless amo thing can bs done to promote a more general ue of the frait in household in the Eastern Stater. This last remark applies equally to the Britidh consumption of Prunes, which, with adrantage to the consumer, might well be considerably increned

Shirley and Surrounding district garo deners' and Amateurs' Mutual improvement Association.-The monthly meeting was held on the 2 lat inst, at the Parish Rooms, Shirley, Soathsmpton, and as the aubject was an attractive one there was a atrong muster of the membert, the Pre sident being in the chair. The lecture was under be aunpices of the Hants County Council, and theirlece turer, Mr. E. Molyneox, Swanmore Park Gardent, had chosen for his address "An Epitome of Carys. anthemam Caltare," and no one could be fond who has a greater mastery of the sabjecte Every point of interest in the caltare of this popplar flower was brought fully home to the sadience by means of living examples, illustrating the particielar matter ander discuasion, and each little detail was so fally dealt with, that there was at the finish no room for questions or discassion. A beanty vote of thanke was unanimounly accorded to Mr Molynedx, on the proposition of Mr. W. F. Manor, There was a competition for a certicicate for the beft aix blonces of Chrysanthemums, which was amarded to Mr. G. Bushrit, gardener to Mra, Krats, Rownham Park, and there was sleo everal exbibits of frit and various plants.

Publications Received.-From the U. S Department of Agricaltare (Washington Gorant ment Printing Office). Water as a Fator in tha Growth of Plants, by B. T. Gailoway snd ALBBe? F. Woods. - The Grain Smuts: their Cause and Pre sention, by Walier T. Swingle.-Fertilisation of the Soil as affecting the Orange in Health and Divass, by H. J. Wibeer. Alao (Farmerg' Bulletin, No. No Grape Diseases an the Pacifc Coast, by NBmoin B. Pierce. Aloo, from the same Department, Divieinh of Eatomology, Vol. VII., No. 5, of Insect Lith edited by L. O. Howard.

\section*{PLANT PORTRAITS.}

Astildity salmonevy \(x\), Ihustration Forticole, September su. \(A\) croes between \(\mathbb{A}\). Lindeai and A. Andreanum. the colour of the pathe is fale yellow, fluahed with salmon. Apple "NuMPArELLLE DE PFingoun" Peasgood's Nonsach, Fiever Horticole, September 10.
Fempes Houlletiayuy, Reves de l'Eortucultare Belge, September.
Campanula Vidalif, Gardeners' Magazine, September 14. Derdrobium Downeste \(\times\) D. Daleouberanum, Gardon, DemprobiU

tember. Horticulture, September 10.
Hippeastrux rquestre var. Wotteri, Garten Ejors, Geptember 1 .
Infe gen famica vap, Krarput, Gapden, September 98.
Nidulamiun Chastaumi \(x\), aros out of N. fulgens by Nidulaliug Chamtanial \(x\), a cros out of N. fulgens by N. Innocente; lonves tufted. Oucer strap-thuped, finely toothed ()."tol or 1. Sarracesia flata, Garden, Sepiomber 14
Thumia harshalimana, Revue de l'Ho:ticulture Belge. Or'ober.
absent a a meparate organ, the flowern were not to lose it beanty altogether, for in nome degree it merged into the petals, one of which we here illustrate (6g. 85). Not only does a patch of the crimeon coloar of the labellam appear in it, bat the wavy edge and more ample mbatance has given the petal a feather-like form, which lends attraction to the flower, sbonmsl though it be.

\section*{ABOUT CHRYSANTHEMUMS.}

Crops of fruit bave been so abundent daring the present season, and the axhibitions, lectures, and gonaip anont fruit calture so general and engroming, that the advent of the Chryaanthemum reign appeara to bave overtaken us with uncommon addenness. In the forthcoming week will be held some of the earliest of the exhibitions, and perhaps antil the e have taken place it would be rash to prophesy
themum in their own parke. In each of thone we have visited in previou seasons, there are again collections of generally well-grown plante now in fall bloom. The only one of the "free" diepleys in London that hae become extinct, it that which for many yeara has been held on the Thames Embankment, in the gardena belonging to the Benchers of the Inner Temple. Before any of the parka made annual diaplaye, the one at the Inner Temple was in exiatence, and the late Mr. Daly and, latterly, Mr. Newton have produced many a good exhibition there. Since, however, the growth of Chspanthemama bas become quite an important part of the duties of the superiatendents at mont of the large parke under the Loadon County Council, the dieplay at the Inner Temple hax nuffered a little by comparison with collections at places where much greater advantage exinted for growing and houting the plant.

Thers in no evidence of lessened interent or enthasiam on the part of those reaponsible for the exhibitiona in the parke. The authorities appear to do what they can to ensure a good show of bloom, and the arrangements made for the control and convenience of visitors, and the staging of the plants show improvement, though in the latter reapect there in room for much more. There appears also to be tendency to copy each other, which reault in a samenean that might otherwise be avoided. In mont case the visitor will find that the authoritie bave considered him a little by erecting notice-boards, which indicate the position in the park where the exhibition is made. To strangera this is more than a convenience-it is a necesaity. Previoualy, the experience of the Gardeners' Chronicle reporter, when trying to discover the Carysanthemamhouse, has not alway been of the happiest nature. As usual, Chryaanthemume, other than Japanese and incurved varieties, are bat indifferently represented at all the places, though we are informed that in one park at least this will be reveraed next aeason.

Finsbury Pare.
Again the Chryannthemums are houned in the long apan-roofed building that was used before the much wider and higher house wan built for the purpose. Apparently the newer house in to be reserved for folinge and other planta. The old house is far from unaitable though; and the collection this year, which is again ataged in the form of a twofaced ridge from end to end, is not one of which Mr. Melville, the superintendent, has any cause for dissatiafaction. Usally there are nearly 4000 plante grown here, but the house will not perfectly sccommodate more than 2000 at one time. The arrangement of the plants indicaten considerable care and taste, although it is the old atyle again repeated. Many new varieties have bten added to the collection, but at present few are worthy of note. Mont of them will flower later. Of older morts we noticed large but poorly-coloured blooms of Chas. Davir, apparently from the crown-bad; J. R. Pearson, a pink or zasuve Japanese ; capital bloom of Avalanche, and the bright-coloured Gloire du Rocher. Though incurved varieties were not fully developed, there were good blooms of M. R. Bahuant, Baron Hirsch, Golden Beverley, and Barbara. G. W. Child was only just opening, bat promise to be good. Hairy Wonder, nearly developed, had poor colour; but, on the other hand, Sunflower was reproaented by first-clase blooms, which combined size and colour too. The diatinct-coloured but well-knowa Edouard Audiguier wan noticed, and bad of the large yellow Philadelphis were fast opening. The excellent large-flowered Anemone Deacartes is a fine addition, and shoald be seen in all collections. Other varieties that mey be mentioned at very com. mendable are Mr. H. Runchman, a flattich bloona of golden jellow, florete slightly recurved, Eyneford White, William Soward, and Florence Davis. Pompons are fairly well represented. The diaplay is only abons five minute wall from Finebury Park Station.

\section*{Victoria Parif.}

Mr. J. W. Mooman, who in a mercber of the Floral Committee of the National Chryanthemom

Society, and has grown the plant for at least thirty years past, has a capital house at Victoria Park in which to display hin Chrysanthemums. The house is a atraight apan-roof, and as Mr. Moorman hat a dialike to atraight lines, the plante are ataged on either side of a central path, the surface of the planta being made as wavy as ponsible. In the house there are staged about 2000 plants; but we were shown an pxcellent reserve batch, which should continue the reason for some time. The arrangement of the plants, with a good band of pompon varietien at front, and foliage plants used aleo at edging, in very astiafactory. The exhibition was opened on the 12 th inato, and will be nearly at its best when theas notes are printed. Gloire du Rocher is al way of good colour here; eeveral of the incurved varieties are also well done by Mr. Large, who hat charge of the plants: Louise has been very fine, but is fast passing; E. Molyneax was represented by excellent blooms; and quite a blaze of yellow is made by that fine yellow decorative variety, Ryecroft Glory. Mrs. F. Jameson also demerve mention, and some good exhibition bloom of Mademoiselle Melanie Fabre, Vice Prenident Calvat, and Mise Dorothy Shea are among the new onee we noticed, bat better blooms of these will be seen later. Vinitors ahould not book to Victoria Park atation, which in some diatance from the house, but 'buse run from the City to the park, and Cambridge Heath Station on the Great Eastern Railway will be found convenient.

\section*{Southwark Parig.}

Spa Road Station on the S. E. Ryo, and South Bermondeey on the L. B \& S. C. Ry, are equally convenient ones for Southwark Park. Batween 3000 and 4000 planta have been grown, and Mr. R. Carle, the muperintendent here, has been obliged to atage them thickly, an no means are arailable to whelter a uccenional batch. The arrangement of the plante is much the anme an lant year, and could hardly be improved mpon in auch a house. At one end varieties of the hirsute, or "whiskered," section have been placed together. Here we noticed good flowers of Hairy Wonder and Louis Boehmer. Eafant de deux Monde, or the white Lonis Boehmer, was not quite in flower, bat King of the Hirautea was making a good ahowwith its long petalled lemon-yellow blooms, This is worthy of recommendation to growert who with to include good varieties of this eection. Souvenir de l'Ami Coye is white, and is less hirate than many of the others, and good blooms are promised by the large buds. Lady of the Lake in pale lilac in colour, and quite good thing; W. A. Mander and Sautel had not opened; and the bade were only partly developed on plants of M. Fernand Bertin, a long-petalled flower, very aparsely hirmate, white, with atripes of rote colour. Among well-grown Japanene varieties worthy of mention were splendid blooms of Elaine, and good ones of Col. W. B. Smith; Wm. Tricker is also well represented, and Madame E. Rey has capital blooms. New ones noticed included Mise Dorothy Shea, which at present is not opening too Kindly; Commendant Blusett, Dake of York, bearing large bude now developing; and Mrn. T. Denne, good deep winecoloured Japanene. Byecroft Glory was conapicuous, and the new Anemone-flowered Dencartes may bs observed. Altogether, the collection is better than last neamon, and there are many fine blooms.

\section*{Battergea Pare.}

The collection of Chryannthemum at Batteruea is ataged in the usal house, a apan-roofed one situate in the frame-yard. It may be useful to visitors if we alvo state that this frame yard is near the went entrance, and close to the Albert Bridge; for the meagreaen of notice-boarde to guide the pilgrim hae reaulted in the writer walking fraitlevaly about for some time, when his knowledge of the park was leas aceurate than it now is. There are about 2500 plants in the collection, and thoy are ntaged in one large bast with path along the eide, an altaration from the arrazgement adopted staged to face a ocatral path, when two bank were staged to fee o gentral path. The wide of the bopee
running along with the path has been nicely furnithed with foliage plants of a more or less ornamental character. The group of Chryasnthemums ituelf would have been more effective had ome efforts been made to acreen the large and thicklyplaced pote by the use of some dwarf Chrysanthemams or other plants. The flowers will soon be at their beat, and a very larga number of varietien may be seen. Mr. Coppin, the superintendent, hat added many of the new sorts, bat few of them were developed when this notice was written. Older varieties that were giving a good account of themselves were Mdlle. Marie Hoste, Mdlle. Thérèse Rey, Florence Davif, Mons. Tarin, Boaquet do Dames, Avalanche, William Tricker, Mone. W. Holmen, Hamlet, President Borel, Gloire da Rocher, and others. The Park is eaaily reached from Clapham Junction, or Battermea Park Station on the London Brighton \& Sjuth Coast Rsilway.

\section*{Waterlow Pare.}

In this little park, at the top of Higbgate Hill, the Chryanthemums are quite as attractive as ever, but poor accommodstion exists here for housing the plants. Mr. Pallett has again filled the conervatory and the three mall lean-to vinerien with very commendable plants, and they are mach earlier than some other collections. For instance, Utopia was eeen in afveral case as small plants bearing three large blooms, which had nearly passed. It is a good deep Japanese flower, pale cream in colour, and petals recurved. Good Gracion had not yet opened, though there were good budr. Wm. Tricker, Wm. Soward, Golden Geo. Glenny, and Edwin Molyneax were all very fine. O d Callingfordii is still flowering in this collection, and Puritan and G. W. Childs were very nice; Alice Bird it a useful yellow decorative variety, and Source d'Or, for the ame purpose, may be uned with advantage. The mall incurved flowering varieties promise to make exceedingly pretty blooma in Mr. Pallett's collection.

\section*{( To be continuad.)}

\section*{Notices of Books.}

Gardenina a la Mode-Vegetables. By Mre. Do Salis. (Longmans). Gardenina a la Mode-Fruite. By Mra, Do Salim, (Longmans.)
Theseare two little books intended expresaly for the benefit of persona who do their own gardening in a mall way. The writer relates the reault of her own experiences. The cultural directions are moatly clear and good, and the recipes for cooking very appetising. Indeed, we are disposed to think them the best part of the books. The authorens confound the Aubergine with the Egg-plant. They are very clovely allied, but hardly identical. The historical or mythical detaila might well have been omitted. In auch books we do not look to find the opinions on Beans held by Pythagoray, nor the value attribated to Cabbage by Hippocrater. Those to whom such information would be aneful would require exact references, which would necensitate carefal verification. The authoritiel quoted by Mra. Do Salis on parely gardening mattors are not all of the first rank, acircumatance that would make us doubt the validity of her clamical allusions; but, under the circamatsaces, this is of little import. The book: are likely to be uneful to those for whom they are apecially deaigned.

\section*{Special Manures for the Garden.}

One of the most valuable contributions upon the subject of manures for the garden with which we are acquainted, hat juat been inaued by Dr. A. B. Griffitb, F.R.S. (Collingridge, Alderagate Street, E.C.) The work conaiats of 128 pages, overflowing with practical manurial information of the very beat kind. The work is based mainly on the reanlte of the chemical analyses of seventy-two different garden plants, and never before in thin country has such a large namber of garden-plant silh-constituente beez recorded,

In the introduction the author aptly tayn, "O view as to the use of manures has undergone a complete transformation during the patt few jem Scientific research has aucceeded in nolving a number of important problems, and we have consequently been led to adopt new and clear principles relatin to the application of manure to planta. Wo en now in a position to distinguiah between menly ' manaring' and 'manuring rationally.' Wo kom what nutrient the coil mast contain in order \(n\) secure thriving plants and the bent cropa, and that fore we ought no longer to be content with ment manuring, that in to apy, with simply applig fertilisers to soils; but we should manure rationdry, that in, put on the noil those fertilising aubumen which it requires to render it capable of fulaliviog th functions required of it."

It must always be borne in mind that the difiniw plants cultivated require for their growth nolfine quantitie of different, but quite definite, plant fook, and that they take thene chiefly from the roil, If plants are to thrive luxuriantly, these plant-loom mast not only be present in the soil in abuadmo but also in an assimilable form.

It must also be borne in mind that manuigeis alway heavier in gardening (eapecially for vegetably and fruit-growing) than in farming.

In agriculture we have to deal with a compro tively amall namber of different kinds of planem We can easily control this number, and withon mach trouble we can try with each plant wheller the accensory constituents of the manures of com. merce act injuriously on it or not. In horticaltan, on the other hand, this would present far greater difficulties. In this case, we have to deal with a much larger number of pecien and genera, and mo cannot carry out experiment with each of them; moreover, garden plants, various vegetable, thr finer kind of fruity, berries, flowers, \&c., are, sa rule, more delicate and ensitive than field plath Hence it is of the utmont importance that artisciff fertilizer or chemical manures hould be givet lif suitable proportions for different plant, and at given at the mere fancy of the grower. Fiomen, fruitp, and veretablen require manuret, bus the at of manaring garden crops has been practived it i crude and lipshod fashion. Farmyard-manure, domeatic draingge, composts, and occasionally gura, bone-meal, auperphonphate, and potash saltu an used with ridiculous want of diacrimination.

For the benefit of those who are mere tyroe il chemiatry, it may be atated that, when the cheaid burne a plant a greyish-white ash remains. Thit ash contains the whole of the mineral conatituent of the plant; and it teache the nature of ill abstance which the plant absorb from the noll Mignonette contain 38 per cent. of potaib, Beal contain 37 per cent. of phonphoric acid, and Veronicas 36 per cent. of potash, and 30 per cent. 0 phophoric acid in their ashes. Ia other worth Mignonette requires potash, Beans require phor phates, and Veronicat require both potali phosphates.

Bat it should not be forgotten that the miem conatituents of the ashes play a most importanf puth in the natrition and growth of all plants; coulquently, if soil be deficient in the mipor cate atituents, or they aro not in such a form that the can be readily aboorbed by the roots, the plaitian bound to anfler from deficient nutrition. MCD diveares of planta are due to the want of proph mutrition. It has often been atated that monk mathi contain a plentiful supply of the minor zonstituen mid and it is therefore unnecesuary to add theonilen plant-foods to the woil. This the author consian an erroneous idea. Many of the minor conalianti's may be preaent in more than a afficient quat th for a crop's altimate total requirements, yief, ad crop doea not produce a full and profitable jern is often diseased.
In most soils these constituents are present in the form of iasoluble compounds, which af patit partially readered solable daring the lives of pult two and those plant which are termed and and aits quently anffer from thif cause. It is a policy wis
pays the horticultarist to help Natare by adding not ouly auch manures as phouphaten, nitrates, and potasb, bat the minor constituents an well, and in the form of solable compounds. There is little doabt that many plants are miserable failares because the soil is incapable of properly nouriohing them. Soluble manures are readily absorbed by the roots, and they are the principal means of producing healthy, vigorous plants, capable of yielding perfect flowers, iruits, \&c. It is very necesary to remember that the ofject of manuring is to feed the plants, especially during the period of sctive growth. Fractional top-dressings, and the frequent use of amall quantities of manarer, disuolved in water, are the beat ways of applying msnures.
If the calcivator postesses a knowledge of the properties of manares, be anderatand which particular ingredient bould be ased to produce beneficial renults. He, therefore, applie the special manure wanted, and no other. Many aubatances which are munures for certain plants, are not manares at all for otherm; and, in some instances, they may act idjariously. Consequently, the caltivator, be he amateur or profensional, who is ignorant of the proper use of manures, subjecte himaelf to double the labour and expense through atilizing any kind of manure to any aort of crop, irrenpective of the fact that difforent plants vary in their conatitaents, and consequently require farnishing with those ingredients or plant-foods ensential to their proper growth. To use the right manures at the right time, and in anficient quantity, is the correct way to work, and the succesafal cultivator in now required to pay epecial attention to the use of manares.

To become acquainted with the food-requirements of plants, we muat know their constituents. These conetitaents fall ander three divisions. First, there is water, which forms by far the greater part of all plants ; second (which include the third division), the dry or solid matter may be divided into carbonaceone, organic, or combatible matter, and into mineral matter or ash, or incombustible matter.

The combatible ingrediente inclade woody-fibre, atarch, fat, albaminoide, the colouring, flavouring, and odoriferous principles, anch as the green colour (chlorophylı) of leaves, the colours of flowers, and the various ensential oils of flower,, leaves, fruits, \&c.

To illustrate how plants vary in their constituents, we give the following table, being the reault of D) Griffist'a and Mr, R. H. Wilson's analyaes


It will be aeen, by carefully atudying the above figures, that the conatituent of the plants named vary considerably it ie, therefore, neceasary that
the manures applied to the aoil, in order to nourish these plants, muat alno rary.

Concerning these constituonts, it may be remarke 1 that water in derived from the eoil through the roots, that the carbon of the albuminoids, carbohydrater, woody-fibre, and fat is almost ontirely derived from the carbonic acid of the air; that the hydrogen and oxygen of the ame constituente are derived from the water absorbed by the roots; and that the nitrogen of the albuminoid is obtained from the manure used-except Peas, in which case it in partly derived from the noil or manure, and partly from the air, through the agency of certain microbes which are present in the soll.

It may be atated, that the large namber of ahh analyaes, and the different manarial formala given in the work under consideration, are the reants of several yearn' investigation in the garden, field, and laboratory, and we can confidently recommend it to our reader.

\section*{Select extra-Tropical Plants}

Baron Ferd. von Mueller's moat useful treatise on the plants auitable for calture or naturaliation in extra-tropical regions, has now reached ite ninth edition. Ite value in attested by ite reproduclion in India, Garmany, the United States, and France. In fact, within it limitations, it form the most acceanible acconnt of the usefal plant of the world that has yet been published, and an auch is in constant use as work of reference. Baron von Maeller has not contented himself with writing booke, but he hat taken a large ahare in the diatribution and introduction of useful planta. The eatablishment of Eacalypta in various parta of Iadia, California, Algeria, and Southern Farope is largely due to hir zeal and energy. It is to be wiahed that the Baron may be enabled to isac a imilar volume devoted to tropical plants. With the aid of the Kew pablications, thia might readily be accomplished by ao indefatigable a worker as the Baron. It may be thought that euch booke partaking at they do of the nature of compilations, might be entranted for execution to some clerk, but the necessity for trained judgment and knowledge is evident in every page of the present pablication, and freedom from errors could only be ensared by the superintendence of so learned a botaniat as Baron von Maeller.

In addition to the alphabetical lint of apecies, list are given of planta yielding a return in one year, in a few seatont, or not until the lapse of many years-as in the case of timber trees. Catalogues are aleo given of plantn aritable for very cold or for very dry regions ; in fact, the practical requiremente of cultivatore have been carefully atudied throughout. A work like this can never be complete, additions and modification become necessary with the progress of time, and so we find the author already soliciting asnistance in the preparation of yet another edition.

We are conscious that our requent is nomewhat uareanonable, it may be even incapable of falfiment, but the frequent mention of the opinioas and obila dicta of various botanista seems to necessitate faller reference to the place of pablication to enable the reader to see under what circamatances the opinion cited or the fact recorded was given, and the degree of importance to be attached to it, At to the anthoritien for the namen, the Kow Iadex happily enables un easily to find the desired references. To show how much till remains to be done, Baron von Mueller inatancen Mexico. More than three centaries have elapsed aince ite conquest, but "only the mont ceanty information is extant on the timber of that empire, even in reference to it numeroun kinde of splendid Oaks. Again, of aeveral thonannd apecies of tropical graases, not many dozens have been tried as yet with rural or chemical exactitude for pasture purposes, not to apeak of a multitade of prominently utilitarian trees, shrubs and herbs reatricted to temperate mountain regions within the tropics, bat never carried to the lowlands of highor Latitudes."

\section*{The Rosary.}

\section*{BUTTON - HOLE ROSES,}

Althoogi the tate for wearing flowers in batton-holen hat greatly diminished of late years, there are atill a few who keop up the cuatom, castom which, I think, is mach to be admired, even although it is by some carriod to excem. One good effect it had 10 far an the Rowe-garden wat concerned: it led person to continue the culture of a clase of flowers which, although utterly nnexited for the prize atand, were jet beautiful adjuncta to the garden, and this led to prizes being offored at various exhibitione throughoat the country. Bat etill, though the taste for button-holen hat decreased, it is a consolation to know that the ame clase of Rose hat come into general use for what are called shoulder-knote for ladies, so that alew notes on them may not be out of place.

The class of Roses most suited for this purpose is that of the maller Tea-acented, and what are called bybrid Tea-acented Roses, and they mat have two or three characteristica; in the firat place, the bad ought to be more or lem pointed, for it it only in the bud atate they can be used, and hence the Polyantha eection which, at firat aight, weem no well adapted for it, are really anauitable, and are very rarely used. Then they mut have good colour; a white Rose, for instance, would be hardly soitable, and mighs probably angest that the wearer was going to a wedding. There is no Rose which more thoroughly fulfile these necessary coadition than-

Ma Capucine, and although raised by Lavet now a quarter of a ceatury ago, in some repect it is atill not only unsurpased, bat unrivalled; the colour is the deepent in it way of almont anj Rose known, bsing of a rich coppery-orange, recalling in some measure the Austrian Copper and Fortune' Yellow. The bud is pointed, and the petals are very few, and consequently it only remaina good for a ehort time, but when opened is utterly worthleas, turniog to a poor white; it is, unfortunately, not a good grower, and consequently it has remained difficult to obtain. I was rather aurprised to find that my plants of it on a aouth wall, although aomewhat injured by the lat evero winter, recovared and bloomed well this eason; but there can be no doubt that it in of delicate constitation, and requiren a good deal of care.
William Allan Fichardson.-This, as far as conatitation is concerned, is the very opposite of the precediag, being of the most vigorons constitation, and having probably an affiaity to the Gloire de Dijon race; the coloar of the bads, in which atate alone it is of any use, in a rich orange-yellow edged with white, but it is now wo well knowa and popular, that little need be snid in its praise. For table decoration, for moulder-knote, and button-holes, it is oxtensively used, and very often in large establishments, a house is devoted entirely to it. It has one failing, namely, that in certain positions and in certain seasons, the white edging eeem to overpower the orange-yellow ground colour, and the whole flower becomes white, and in this atate it is valueless. It has been said by some, that there are different strains of it, and if so, it white one ought to be avoided; ita freadom of growth and profusencas of blooming will probably tend to make it hold it position for many yenre to come.
L'IUEal is one out of the many productione of M. Nabonnaud, and hat obtained a permanont place in our gardons. It is vigorous in growth, has a good constitation, and is hardy; it colour it is almont imposible to dencribe, affording \(a\) it does a combination of orange-yellow, metallic red, peach, and gold, making it a mont lovely flower, and a general favourite. When exbibited at the Crystal Palace at the National Rone Society exhibition by Mesars. Paul \& Sons, it created a great wensation, and is now recognised as one of the most bematiful of its clase.

Beaute Inconstante.- A new Rowe of novel colonr. It hat been deacribed at terra cotta with flamecoloured ahading, and probably this is an near an we
can get, though it is sometime shaded with cream or white; it aeems, no far as one can ee, to be of a good habit, and very suitable for a pillar or wall.

Gustave Regis - This is naid to be one of the hybrid Tea clast, but I am at a lose to find where the bybsid is in it. All Roses have been more or leat either naturally or artificially crossed, so that the term might be applied to every Rose ; bat by hybrid Tea it is generally intended to indicate a cross between a Tea Rose and a bybrid perpetual, and this I cannot see in this flower-it seems to me a Tea Rose pare and imple. In colour it is a bright canary-yellow, with a very pointed bud; the foliage in good, and the habit of the plant climbing.
Shirley Hibberd.-A comparatively little known but very pretty Rose: was rained twenty yearm ago by Lavet, from Madame Falcot; it is of a bright nankeen colour, with pointed bud, and very sweet. I very rarely see it, and am iadebted to my friend, Mr. Cooling, at Bath, for my knowledge of it.

Princesse de Sagan.-The most highly coloured of the Tea Roses. Ita anopened buds are very pretty to those who admire the rich colours in Teas, which I confens I do not; bat the rich colouring of this variety, which is far brighter than Souvenir de Thérèse Levet or Marie Antoinette, give it favour in the eye of a good many growers.
Madam: Chedane Guinoisseart, \(\boldsymbol{\Lambda}\) very pleasing and free-flowering Rose, faller than some of those already mentioned. In colour it is of a bright yellow, and even when more expanded, \& not unpleasing flower; it is, however, as a button-hole Rose that its chief usofulnes consists.

Adeline Viviand Morel. - A comparatively new Rome, raised by Bernaix ; in colour somewhat in the way of W. A. Richardson, but of prettily combined tinte of apricot, orange, and white-likely to become a general farourite.

Alister Stella Gray.-A new flower, raised by Mr. Alezander Hill Gray, somewhat in the style of W. A. Richardson; a very free and countant bloomer, no that one rarely goes to the plant without being ble to obtain ome flowers from it.
Madame Pierre Cochet.-Another of the W. A. Richardson tyle of Rose, raised by Cochet, in 1892; the raiser calls it an improved (for mo, I suppose, we must interpret "perfection de") W. A. Richardmon. It is a very pleasing variety, of a very vigorous growth and bright foliage, the colour of the flower is very much like that of its parent, not having so mach orange colour, bat more primrose-yellow.

Marquise de Vivens.-A very pretty rou-coloured flower, with a yellow centre; it is very weet-acented, and altogether in it bud atate a very pretty kose. There are probably others that nome might wish to include in this liat of button-hole Roses, bat I do not think that the dozen which I have thus deacribed can be very well exceeded in beanty. They are varied in their colouring, and nearly all very vigorous in habit; many of them partake more of the Noisette than of the Tea character, and indeed occupy the border land batween those two mection. Many of them are now, in Saptember, flowering profusely; indeed, in the late glorious antumn westher there was a wonderful abundance of Tea and Noisette Roves of all kinds. Hybrid Perpetuals were not wanting. although the hot sun very moon deprived them of their bright colouring, which only tend more and more to develop the bearties of the Tea Rose; and those who have not already grown the sort that I have described will, I think, do well to add them to their collection even where the apace is limited. Wild Rose.

\section*{CHRYSANTHEMUM BOULE DOR '95.}

This is a now incurved Japanewe Cbrywanthemum rained by Mons. E. Calvat Thowe who appreciate the five early-flowering Louise, will find this variety a good companion for ame. Bonle d'Or ' 25, , so named to dintinguish it from an earlier variety of that and build, benide-if we may judge from its habit this
caton - which, it flowers open about the ame period. The flower is undoubtedly a very fine one, and generally rather deeper and more compact than sbown by fig. 86, p. 499. In colour it is a lovely light-brown or amber on the urface, with a pale yellow reverse. The variety was awarded a Firstclass Certificste by the National Chryaanthemam Society on October 8, and an Award of Merit by the Royal Horticultaral Society on October 15, the bloom in both cares being exhibited by Mr. W Wells, Earlswood, Redhill, Surrey.

\section*{Home Correspondenoe.}
market bale of fruit.-It does seem at if there was a potent truth in what was recently gaid during a discuasion on froit culture for market, that it was much less difficult to grow fruit than to sel it profitably. If those now growing fruit for market ing, or proposing to embark in that induatry, do not know the best sorts, the best methods of culture and the best manner to prepare fruit for market, then have they greatly wasted their opportunities. The country has been saturated with advice on these matters, and so much bas the subject been ventilated, that even the ablest advocates of reform bave nothing fresh to say, but can only repeat what has previously been stated. Oar fruit exbibitions certainly show that a knowledge of high-clana cultare has apread very generally in the country, and nach being the case, further knowledge is needed to make fruit calture profitable; for unless it can be rendered profitable as a commercial induatry, there is little prospect that auch culture will increase. The first thing to clear upis the reanlts of high-class calture with best varietie as compared with ordinary culture, which is often non-cultare, with ordinary or inferior varieties. If the cry of atarved market retarns comen from the high-class growers, then in the outlook dark indeed. If, on the other hand, they have, convidering the immense crops of this year, been fairly well content, and do not complain, then is it evidant that high-clans fruit pays, and that it is the inferior fruit which fails to do so. It is, however, a matter which the bigh-class fruit grower only can fairly determine. But may not contigaity to a good market, ach as a popular centre afford, have mach to do with profitable result, sasuming that these are sometimes fouad. Thas the grower who ha his ground within ome twenty mile of the market, and can send in his own vans and go himself to sell, saving something of the ordinary cost of railway transit and aseamen's commianion, edjoy: a great advantage over the grower whose laod is beyond the diatance that a waggon can proftably cover, and who has to pay rail charges, cartage at both ends, and alemmen' comminion. Then the grower who is thut in close touch with the market, learns to underatand its requirements and movements, and regalate his sendinge accordingly. The more distant grower know less of the matterm, and does not see much of other methods in the matter of home and foreign prodact. Indeed, it is a fact, that marketing is of itself a vocation for which a certain amount of training is required. Then there generally can be found between the fruit grower, whose land is adjacens to the town and the town hopleeper, an intimate batiness connection, and where that existe, price are alwaya rather better than in the open market, and there are no incidental chargen to meet. If, too, the grower has adopted the more advanced methode of packing fruit in shallow boxes, balkets, \&ce, so an to induce the grocer to become a cuatomer, he opent up a way of trade which eo far bas been chiefly restricted to the foreign importer, whoes methods of packing have beaten our old-fashioned one hollow. I have heard of grower of frait near to London, whose prices bave been low-so low, indeed, as from 1s, to 38 , per bashel for good-nized Apples, according to quality-who have done very well, simply becaue the crop was so heavy. Bat if distant growers of even fairly good ample cannot well locally at a remunerative price, how can they hope to do so in distant markets after paying rail chargen, market fees, and salemmen's commistion? If there be no demand relative to the enormona supply, it in not posible to create it artificially; and although we may deplore the undoubted fact that not more than a third of the fruit is conmomed an food that should be according to the population, and yet it in not ponible in any way to force that consamption, then the most

We can do is to tempt to greater conamation by offering the best of fruit in the moat attractive guise. We have had various aspects of the marty question presented to us from time to time, but they have largely come from the more intereated succasafal side. When we have heard the othe atpect, it bas asually been in the form of a lameat without sny practical suggestions scc mpanying it N ttarally, the misfortunes of the cultirator of
inferior varieties do not command mach attontim inferior varieties do not command much athation
from practical men, bec anae they perceive lath why these misfortunes and failures come. The difie calty presented is to make these growers who en tho bane of fruit cultivation and marketing, realim the weakness of their practic?. If we could elitinath from market competition all inferior frith wo should immensely enhanc the prospect of highe culture. That we are still passing through the transition atage in relation both to caltare ad to marketing methods, there can be no datik The procese is a slow one, bat the altimatemath can hardly be doubtful. Sarely, the fine frnit msented in the best way, mast eventaally wia in th end, End that render in Great Britain, higetem fruit culture assuredly profitable. A. D.

A FINE SPECIMEN OF WISTARIA BINENEI II BURY 8T. EDMUND's. - In writing to the Gandam' Chronicle two or three weeki' since, of especiallf-ine npecimens of this matchlens climber, I had two fing specimens in Bary specially in view, the one at th corner of Sparhawk Street, and the other in Northgate Street, near the railoay station. Tae lattor is considerably the larger of the two, and is one of the finest I have seen, with the excaption of some noble specimen clothing the flower-gurden wall at Euston Park, the eat of His Grees the Dake of Grafton. H. R. Barker, Equ of Northgate Street, kindly sends me the do mensions of his plant, which covars three sider of his large house. Tae plant is 101 feat 4 inchas is length, 23 foet 6 inches high; thas, in romid numbery, covering 2,323 equare foet. The stem, the ground, masaures 3 teet \(10 \frac{1}{2}\) incher, and af 2 feet from the groand it in 2 feet and \(\frac{1}{2}\)-iach ronad, It was this plant that apecially distingaished isell by the profasion and delicacy of ite autuma blonoms this season. The zero frosts of last Febraary did if no harm. D. T. F.

VEGETABLE FOODB AND DRINKS.-Ta phe season will logg be remembered for great hus and drought, and the abundance of Applas Plam. In accordance with the ancient notions aickaes, cholera, and other ills woald be sare to follow, but this does not appear to have been the can. Daring this abondant fruit eason, with whigh a temperature and so mall an amount of raia, it it not racher remarkable that we have been nonanaly bealthy as a nation? I think so. The quatiol arise, is there a cause or reason to account for thin highly atiafactory atate of things? I think then is. Plums at \(\frac{1}{2} d\). per 16 ., and Apples at 3 lb, for 1d. [?] in nearly all large town and citien, at once make it plain that an enormous quantity mult have been partaken of everywhere with excellent phyicel resalts. The question is, have we not gained greasly by all this frat-eating, and if so, what and much? If any of your correspondenta could throm any light on the very important adrantages of eation fruit to make us safer from epidemics if wown be solving a great question indead for our fatu guidance. I have corcainly eaten conniderably than usual, and required as a result less the unal nor have I in the least felt a desire for weather \(I\) kind of drink, and during the hottest weal pur never felt better. In my opision, this more mitir taking of fruit has caused people to feel mors sfared fied-the young in particalar, they haver dial less acately from thirst and the craving of popars and is it not a fact that the free nae or porith drinks dinagreen with many persons. apparently contain ingredienta which rather crease the parched feeling than all persona over-indalge innocently. purtil the eromach can bear the injurion maltar mo longer, and at last throw it off. bot when thins satisfied with fruit there are no chemical anbast to diaggree-on the contrary, an agre pleasing refreshment is taken. Again, good ripe frait the body is atimulated and in in a more nataral manner, and the min of kied cheerfal. I have noticed atewed fruits or other is nerved on nearly every yabr. Maoy pem is becoming more general every year,
would find it dificult to alter their diet: yet the queation is, if we are wise and wish to keep in good healch and fit at all times, whether it would not be adviable to consame more frait and lees meat, and live more in accordance with natoral requiremento, particularly during seasons of high temperature like the pat season. I rejoice to see fruit and vegetables becoming more and more need as food. Henry Cannell, stcanley.

PACKING COMPETITION AT THE CRYBTAL PALACE BHOW. - The arrangementa for the jadging in this very important competition need a little
tunately obliged to market a great deal, had to send every box separate, what a great addition to their labour of packing would be caused, benides greater cost in transit. Frank Harris, Eastnor Castle Gardens, Lediury.

PRICE8 OF APPLE8.- In the able prize earay on fruit reported in the Gardeners' Chroniche. p. 432, the following quotations are given, Eclinville, which headed the list, fetching from \(£ 12\) to \(£ 22\) per ton Lane's Prince Albert, ditto; Goiden Sire, £l5; Worcester Pearmain, from £14 to \(\mathrm{E}^{2} \mathfrak{i}\) per tun; Warner's King, \(£ 16\) per ton; Cox's Pumona, Cox's Ornage Pippin, King of the Pippins. Lord Suffisld,
main £26, that Coz's Orange Pippins, the next beat to the Ribstod, only made fi6 per ton. Can it also be alll trae that, notwithatanding the numbers of Ribeton Pippias grown and shown, and the robast health of the trees generally on Paradiee stocks, Eoglish-grown Ribetona are till so carce as not to have their valne in bulk anseased in ons latect priza-enaye? This is the more eurprising, at we are all agreed that the Ribston remsin till the Qzeen of all our Eoglish or auy other depsert Applev. Neither are prool wanting that it will thrive under good treatment on the Crab or free stock on good coils, with judicions root-praning. I have recently ween some Ribston treen in Susez, over a hundred years


Fig. 86.-cheysanthemom boule dóor '95. (8Rr p. 498.)
reviniod. In the firat place, I think a leading saleaman or two would make very competent jadges, instead of the garcemers who judge in this competition. Then, 1 think, the distance which fruit has to travel should be taken into conaideration; otherwise, an pxbibitor who has to mend a long distance, and very likely over more than one company's lines, is placed at a great diasdvantage a compared with a les distant competitor; and to make aure of the fact, the different samples should travel as ordinary parcela, and bear the company's label to that effect. I myself, with othere who sent wapoples for competition, found our carda marked, "two boxes tied cogother." Ia that a fault? and if 50, why? If all eardeners who, like myself, are unfor-

Pott's Seedling, Tor Enbire Beauty, Stirling Cantle, Tower of Glamis, and Dumelow's Seedling. The etatement as it atande would be more valuable with a little further explanation. It can hardly mean that the lant nine corts named were sold at the \(\begin{aligned} & \text { ame price an Warner' King, viz, } f 16 \text { per ton. }\end{aligned}\) Neither can it mean that ach valuable denert Apple as Cox' Orange Pippin and King of the Pippins are not worth more than much kitchen varieties ns Ecklinville and Lord Suffield. The colour, doubtlew, wells Winter Pearmains, though \(£ 26\) per ton is a bigh price for such a decidedly inferior Apple. And it reem imponible for the able casayist to have withed to convey the impresaion that while Ecklinville made E22, Worcester Pear-
old, in fair health and full bearivg, that had never had suy olher food or manure within the memory of the oldent inhabitant but the drainage of a mall yard, in which about half-a-dozen bullock were "most" fatted every winter ; and we have plent of amples everywhere of the wond orful tenacity with which the Ribaton Pippina cling to life, when not crippled with canker, and mothered with American blight. Query: Are thene weaknemen the astural resalt of our modes of calture, or of our climate or the constitution of the variety? \(D, T . F\).

THE CRAB FOR THE GARDEN AND ON THE TABLE, -I am very glad to aee Mr. Harrison Weir' rousing article about Craba. It would be almost
impossible to read it without setting to work at once to plant Crabi in greater variety. There is no fear of overdoing Crabs in our gardens or landacapes for many years. There are many of them very much overdone with evergreen ; and now is the time, or it will soon be bere, to take out and aproot some of the latter for Cbristmas decorations, and plant Craba in their atead, if no other places can be found for them. For grace, beauty, brilliancy of flower, fruit, foliage, we have nothing to rival, and few to equal, Crabm. Then as aweet on the table, they are ever welcome, as jelly, jam, or whole in byrup, with at leatt a third of the atalk left intact to hold them by. Artista in conserving Crabs vary much in their view of the most orthodox length of the atalk for procuring artiatic effect and convenience. Well, it is not of vital moment, and here the charm of variety may be indulged to the full without idjury to the artistic effect or eating qualitie of aweet Crabs. D T, T. .

CRAB APPLES FOR GARDEN DECORATION. Why ahould not nome of the handsome free-fruiting form: of Pyrus malus, which are denominated Crab Apples, find a place among the ornamental trees in the shrubbery border, where they are but rarely teen? They have two periods of aervice-when they flower, and when they bear fruit. P. malus floribandus is sometimen planted, and is most attractive in apring, being very free-flowering; the young shoots of the previous year asame a naturally pendent growth, and become wreaths of blossom, to be followed by numerous amall fruitw. The red and yellow Siberian Crabs, forms of P. prunifolia, are both highly attractive, both in flower and fruit, the fruit of the former taking on a lively bright reddish tint, the latter pale yellow; both are very free in fruiting, and highly ornamental. Mearry. J. Cheal \& Son, of the Lowfield Narseriet, Crawley, who have a very intereating collection of Crabs, have a distinct form of the Siberian, which, it in probable, originated as a ceedling, and they have named it the Scarlet Siberian, on account of its brilliant colour. In several particulars, it differ from the Red Siberian, not only notably in the colour of its frait, in the absence of the cavity in the eye which is peculiar to the common form, and in the prewence of calyx-megmente, or anuff, which are retained, and do not disappear, as in the cenee of the two typen of the Siberian. John Downie, which taken on a very fine red colour, and in quite diatinct in appearance, may be deacribed an a long form of the Siberian, its brilliant orange-red colour is very attractive, and it fruite very freely. This is a atriking type to plant among shrobs in the form of atandard treen. An extremely handsome form is also found in Tranacendent, from America, which produces ite fruit in large banches, which when ripened in the aun are highly attractive. It is very distinct in character, and the fruit takes on a remarkable bloom. Then there is the black-fruited Crab, which is very dark in the colour of its fruit, and in atriking contrant to some of the others. What is grown at the Lowfield Narserie under the name of edulis is a amall-fruited cort, and valuable as a arabbery plant. Then there is the Dartmouth Crab, the fruit large in aize, and diatinctly plam-coloured, taking on a beautifal bloom; it is alao a free bearer. To suit the requirements of planters, Crabe are "worked" -to use a nursery phrase-both at bushes and standards, the former being best adapted for isolation, anlene the position is better muited for a atandard tree. In either form they make handeome objects; and while a tunny position is probably necenary to cause a fine colour to sppear on the frait, it was yet noticeable at the Lowfield Nurserien that bush plante partly hidden from view by the growth of others about them, and partly by overhanging folinge, yet bore erop of richly-tinted fruit. R. D.

JUDOING AT METROPOLITAN AND LARQE PROVINCIAL HOATICULTURAL EXHIBITIONA. -The anggention made by "P. M." at p. 336, aurely cannot have been made in earneat. The idea is too ridiculoas to be entertained for a moment, and thoroughly unpractical to a degree. "P. M." agggente that an expertsin from the Royal Horticultaral Society-mould be in attendance at all important horticulcaral exbibitions at acrutineer. Scratineer, indeed!-to see that no point of merit in the exhibit are overlooked, and if any error occar, that it may be pointed out before the adjudieators lesve their work. Adding, agenerally mon of notable poaition are melected as judges, and rightly not but sporitions are aelected an mintakes, and acrutineer would materially masist in aveuring justice in each sward." Mark the words,
rightly so, are liable to mistaken," but the suggested expert in infallible, and readers of the Gardeners' Chronicle, eapecially the committeen and wecretarie of large provincial horticultural societien, are anked to accept this highly illogical anggention of "P. M's," which carries its 0 wn condemnation with it, and goes to show the exceedingly high, though deluaive, opinion which "P. M." hat of his ideal expert, and the poor opinion which he entertains of the capacity of men eelected to make the awards. Sapposing that any committee of horticultaral societies were to act apon "P. M.'s" suggention, the judger selected from "notable positions" to make the awards under the condition indicated above would anmuredly not be forthcoming, and the infallible expert woald alone have to"award the prizes. The united judgment of two or more practical men "P. M." thinks might be wrong, and that of one man-the expert-mant neceanarily be right! Why doen not "P. M," boldly say to which high-class provincial show recently held, his remarks apply, and also mention the one absequently held at which the " nonplassed competitor found a peg to hang his 'quibbles' apon, and thereby do that which is right to those judges, exhibitors, and committeemen who have not, in his opinion, trangremed his ideal way of judging. exhibiting, and managing horticultural thows? Fiat ustitia, ruat calum.

\section*{EARLY FIGS IN POTS}

The cultivation of pot-grown Fige ir, I am glad to remark, on the increate in this country, and thome who have eeen the excellent examplen at the Royal Horticultaral Society's Garden* at Chiswick would be able to note the value of the Fig when so grown. My preaent concern if, however, with forced Fige for gathering in March and onwards, which is earlier in the year than the Chiswick Figs bear fruit, and, being early, they cannot be compared with those at regarde fine flavour. Many of the varietien grown at Chiswick are not suitable for hard forcing, though excellent at a later eeason. There is the great advantage in pot Fige that their fruite can be obtained at a time when other choice fruite are not
plentiful; moreover, the forcing is easily managed, and the permanent Fig trees, if any, are kept for later fruiting. When pot-grown Fig trees are forced year by year, they force freely, and bear good crops. It is objected to pot trees that the fruits often drop before mataring, but the ame objaction hold good of the large permanent trees which are hard forced; and my experience it, that there is less dropping with pot-grown Fig treen if the treatment afforded is the proper one. Again, an regard dropping, much depend upon the variety, nome being more liable to it than others, and thene should be avoided, as when the first crop is loat another early crop is out of the quention.

Mr. Barron, in hir excellent report on the Fige at Chiawick a fow yeari ago, gave a lint of aome aixtyaix diatinct varietiev, many of which are not suff. ciently known af yet in gardens for me to adriee their employment as early forcers. The list of varietie which I now give is a short one. An early forcing Fig should be capable of making aturdy, ahort-jointed thoote, so an to fruit freely in a amall apace, and that involven compactness of growth, wo that the forcing can be carried out in low pite or honses. Sach planta are lese subject to fruit dropping than atrong growers. It is surpriving what a nice lot of frait a well-managed plant growing in a 10 or 12 -inch pot will produce if the preparation of the wood has been good, and due upplies of natriment and water have been afforded at the right time, any excenm of either causing badlyflaroured fruit and frait-dropping. The regularlyforced pot trees fruit so readily, that I look upon them as being the mont reliable of early supplies. Daring the laut fow years there have been some valuable additions to early varietiet, viz., St. John's, Pingo de Mel, and Violette Sepor. Many other varietien bear forcing well, but they do not frait in a ohort apace of time; as, take for instance, the firat and ascond named, there is no diffeculty in having ripe fruits in March if the plants are started in the middle of Nowmber, which allown of alow forcing from the
start. Both varieties are noted for good habit, adod oot ehedding the earliest fruite in the dall momon
With regard to these varietien, I have not mic experience with them as permanent trees planted out for summer fruit ng, bat for pot-work they will supersede some of the older varieties for euly forcing, and when of amall aizs. That well knom Fig, Negro Largo, one of the best grown, is not good early forcar, but there is none like it for he antumn cropping, and where apecially grom for fraiting at this season and later it proven a mow valuable Fig; and co variety is more amenabla to pot-cultare. Planted out it yans wild, and ram to fruit unless one is alway pruning its rome these are confined to a amall space. I am C the opinion that the beat nee is made of NegroLare is growing it opecially for late fruiting, although it is a valuable Fig for very early forcing, if given play of apace in which to grow at top. At Syon itime free enough an an early variety, though later outil all that one could wish. The best all-round fir is the favourite Brown Tarkey, a grand pot Iy whose second crop is often better than the frim For growing in a reatricted space and for fruiting from May to September, it is a valuable variot; but it will not tand hard forcing like St. John an Pingo de Me!. The amall white and bleck Ivedim force well, but the white variety is the moredelixions The White Marteille is a well-known ruido, good for permanent trees, or for growing in restricted borders ; and there are some others equally good, by with me none is a reliable an those I have namd The syatem paraned at Syon is to place the pofplanta indoors in Noramber on a mild hot-bed of freah leaven, in low pity, close to the glam, and to force alowly. We obtain from these trees fruita in the month of March. I do not advise the hard forcing of Fige, and if fruit be not wanted sill April, the month of Decomber will be early enough to begit at the crop of fruit will then be better and the frait larger, and of finer quality. A great point with early-forced Fige is the thorough ripening of the wood, and not allowing them to carry late cropt, w they will do if the trees be not lightened of the frila that set. The forced treen here are placed in a cool house after the forcing is over till September, when they are turned out of their pots and denuded of portion of the old roots, repotted, and sheltared from heavy rains, but stood in the open till placed in the forcing-pit. The potting compost conaiste of nond lonm, old mortar or plaster, and bone-meal. A fer Fig cattinge are atruck yearly, and the plants grom on to take the place of those which have to be dis. carded, because too large for the purpose. Darieg their early forcing atages but little mointare at the roots is required; and pinching at the fourth joint in important as growth proceeds, to amiat the fruit il settling. G. Wythes.

\section*{Nubseby Notes.}

CANNAS AT PAUL \& SON'S, CARSRUNT Casna indica of the botanists it now an popular plant in our gardens, and we need not ruia it the leas because it is an old plant. Joha Geand anya, 1596, "that he had planted it in hic gard divern times, but it never cams to flowering; and that it muat be aet or nown in a pot with fine artion or in a bed made of horeedang, in auch manap Cacambers and Musk-Melona are." Parkineon more nuccensful later, and flowered it "in nome timide years," but it never bore seed, nor would it "abila the extremitien of our winterm, unless it meet nit for atove or hothouse mach as aro used is Germany, Is neither house nor cellar will preserve it." Miller's time it bore seed. freely, and he recan mended that the old plants be thrown andy matis they had borne good seedr, at the joung: alway: flowered better then the old roots, neither Miller nor the older botaniate were rer Mith cesaful in improving the plant, for Mr. W. in the Hortue Rewenvis, 1810, onumersber bur rarietien-C. indica rabra, C. i. cocciona, Canm C. i. Iuten, C. glanca, and C. flaccida,
among the easiest exotic planta so cultivate. They are excellent in pota for late autaton and winter caltare, and they are valuable as semi-tropical plante in the flower garden. Crczy, of Ljons, bas beta very aucceanful in raising richly-coloured varietien from seed; and in Eogland, Mearm. Paul \& Son, of the Old Narserit: Cheshant, bave made conaiderable progress in producing a now feathered strain of undonbted merit, which combine a fine dwarf babit in the plants. Mr. Geo. Paul, senior, the genal rosarian, is quite an enthasiast amongat Cennas. O) 10 of the bent varieties is Dr. Maters, the petalf of which are bright jellow, very distinctly feathered with bright red, lip deeply apotted and marked with crimson. Mra. Faudel Phillipa has yellow petal. leathered red, lip yellow, densely apotted red, and is fioe. George Nicholson is a plant of dwarf habit; che flowers are clear yellow, richly faked with crimson, lip deeply potted with the same colour. Miss Elaie Perkins is a lovely clear jellow self; Phcobas is a very pretty orange-red variety, with large flowern. Bacchus is a showy variety, with flowers of large size, deep reddish-criman in colour. Mra. Tasker is an excellent dwarf plant for pot caltare in the epring; the petale are yellow, with buff centre. Amphion, cinnabar red flowers of good form, and a compact apike; Cheshunt Yellow has flowers of diatinct clear yellow, the lip reddishbrown. T. B. Haywood is one of the beet for antumn flowering; the colour is a diatinct deep rosycrimmon. Crozg's varietien, though diatinct from the Caeshant strain, are also of great merit. Papa Crozy is perhaps the best; the dower are of a recdinh-vermilion, and are well-formed. Gloire Lyonnaise is yellow, heavily blotched orangered; Soavenir de Aatoine Crozy, acarlet, with yellow margin, ia very diatinct; Comte de Boachard is yellow, evenly spotted with red, very good and large; Van der Berg is reddith-orange, with clear yellow margin, and very dwarf in habit. Emil Rodeck is a dwarf plant; the flower a clear golden-yellow self, with maroon-red lip. The above are the beat of the Cheshant collection, and they are grown both planted out in the open garden and in pota.
Most gardeners have grown the Canna in pote, and fow plants are better adapted to farnish the greenhouse or connervatory during the nutumn, whilst with a little heat they can be had in flower sll through the winter. The plants may be grown to immense size if they are given good loam and decayed manare to grow ia, and plenty of pot-room. I have had eplendid specimens in 12 and 13 inch pote. The plante also like a light and airy position when making their growth. At Cheshuat smaller pot are used, and quite as good result are obtained in respect to the quality of the flowers. They were also flowering very nicely in the open borders in good deep soil ; in masses of one colour, they would have a fine effect in any garden. I have used them in the form of large specimens with good effect in the centres of large beds which are planted with Pelargoniams and other things. Not only are the flowern of these Cannas richly and brilliantly colonred, but the effect of the foliage at a distance is very atrikiog, and it is eany to obtain colour by using Phloxes, Pentatemons, Antirrhinums, or Pelargonium of the zonal type, J. Douglas.

\section*{Plant Notes.}

\section*{APIOS TUBEROSA}

Tris is a pretty Pea-like, deciduoun climber, which ancceeds in ordinary garden noil, covering a trellia in a short apace of time. When well planted, it will take care of itself.

\section*{Edcomis punctata,}

This uneful plant thould be found in every collection. The bulbe thould be grown in a mixtare of porous aoil in the open, about 1 foot deep, mulching them during the early winter monthe. I prefer to grow the plant in clumps of eight bulbs. Our plants were grand objects when in bloom,

\section*{Clematis Davidiana and C. Graveolens.}

The firnt is a plant of recent introduction, which I can recommend as being hardy, of a diatinct character, erect in habit, and bearing a profuaion of lavender-coloured flowers, quite different from thone of the ordinary tppe of Clematis. It attained a beight of \(3 \frac{1}{2}\) feet this season, and it will doubtless grow taller. It is a auitable plant for a border or rockery, and its hardiness is such that it has stood the teat of last winter unprotected; atill, I mean to take extra care of it for the fatare, as it is well worth it. The bloom begin to appear in the month of Augut, continaing to expand till the end of the following month. Clematingraveoleus is a pretty pale yellowcoloured species, suitable for covering a fence or trellis, and it forms a line effective contrast to C. Jackmani. H. May, Markree Castle, Sligo.

\section*{New Invention.}

\section*{A NEW TURE-CUTTER.}

Is fig. 87 ie presented a new implement for paring or catting tarf for the parpose of laying down lawna, which is likely to effect an immonse economy over hand-labour. The machine has a paring-blade anpported by one vertical catting-blad3, and enares a clean and level cat bottom, and a turve or sod of equal thicknem. A heavy roller rans in front of the blade to level the surface and regulate the thickness


Flif. 8i,- 1 turf-cutiling implemevt.
of the cut. The cutter is furnished with guide-wheels to keep it level, and to ensure the turves being cut to a uniform width of 12 inches. Lifting wheela to raise the implement are provided at each end.

To cross-cat the turves to a aniform length of 3 feet, there in an extra vertical cutting-blede which runs in front of the roller at 4 , and a marker attached to the implement marks a line on the grass parallel to the cut, showing where the cutting-blade is to ran the next bout. The machine has been brought out by Mesarn. Ransomes, Sime, \& Jefferien, Ltd., Orwell Workn, Ipwich.

\section*{SOCIETY。}

\section*{THE UNITED HORTIOULTURAL BENEEIT AND PROVIDENT.}

October 17.-The ninth anniversary dinner of this Society was held at the Cannon Street Hotel on the above date, when Jame Herbert Veitch, Eiq., presided. he being apported by Mesarn. Natting, H. J. Veitcb, A. Moas, W. Y. Baker, H. B. May, H. Catbush, W. Iceton, H. Cannell, and other gentlemen. A larger number than usual were present (110), and the greatent onthuniasm pervaded the meeting.
The Ceairmax, in his after-dinner speech, when proposing the toast of the evening, placed before his audience a most coacise and forcible statement respecting the beaefits offered coacise mambers by the Society. More convincing facts could to its members by the societr. Muore cons from its rules with not possibly be given than the quotations from its rules wan
regard to the many advantages offered. The chairman regard to the many advantages offered. The chainman
announced that the society had now inveoted fund in Trustee's stocks to the amount of \(\mathcal{E 1 0 , 3 0 0}\), the investiments for the past three years baving been at the rate of \(\& 1000\) per annum, whilst this year they will, in all probability, exceed that sum. When the Society came of ago it had only, after twenty-one years of hard work by its secretaries and offcers,
\(1 i i^{2}\) members. A new era then commenced uith these anniversary dinners, the ultimate object of which was to bring the socialy int) more prominent notice. This has been fully justitiod by the prominest and there are now 581 fuly \(u\) ustinid by the remilte, and there are now 881
members scattered over all parts of the United Kingmembers scattered over all parts of the United King.
com, and a few oulside of its boundaries. Then the com, and a few outside of its boundaries. Then tes
invested funds stool at \(£ 36 \overline{3}\), as ogainat the present invenged given above. Then there were twelve honorary members. now there are fifty; the increase, therefore, han bren an allrcund oue. The Chairman alluded to the alterations in the rules, whereby the amount payable in sickness has been increased from July 1 last. This is especially noteworthy, the alteration having, witbout the slightest demur, received the satction of the Hegistrar of Friendly Societies. The increase thus given is from \(10 \mathrm{~s}, 6 \mathrm{~d}\), to 128 , per week for thoee who contribute \(8 d\). per week, and from 16s. to \(j^{6}\) s for thase who pay 9d. Speaking of the Cosvalescent Furit, the Chairman mid:-" Peouliar to this Society, and undoubtedy of great value is the Convalescent Fund, a fued which owo its exintence to the forenight and gesierusity of Mr . Sherwood. Thisfund is purely a voluntary one, and it is at the disposal of the committee. that they may send away for a time any member who may have been so prostrated by illneas as to member who may have been to prostrated by illness as to
render a change essential, but who may not have the necessary render a change essential, but who may not have the necessary
menns. To generous friende and to those who are enjoying a means. To generous friends and to those who are enjoying a
larger share of the good things of this world than falls to many larger share of the good things of this world than falls to many
of us. I would venture to ask something more than a lindly of us, I would venture to ask something more than a Bindyy and Provident Sooiety next comes uppermost in their aninde." Remarls worthy of thought by all gardeners were those made also by the Chairman on thritt: "On the necessity of thrift in general, and the strong advisability of joining such a benefit and provident society as this when young, it would be easy to dwell, and much might be said in particular on the necessity of thri!t for the young men and foremen in the bothies of the large gardens of this country, more especially as the occupation they have chosen bas suffered so much, and is still patfering, through recent jears of depresaion, and through the very large number who are continually entering it ranks. very large number who are continually entering itc ranks.
Travelling lately in various parts of this country, I could not belp being struck by the number of foremen capable in every way of taking head places, and who, even with strong influence to assist them, fail to obtain the much coveted post. Some have been waiting for years, and se apparently ha far off to-day as ever from altaining their wish. To such would I especially recommend the Benefit and Provident Society. The gounger a man juins, the sooner a large deposit is acquired, and the sooner one whll find oneself in the position of certain members will find oneself in the position of certain members
at present, whote interest on their deposit is greater at present, whote interest on their din the amount annually paid in subssriptione." No more weighty arguments than these should be necessary to conweighty arguments than these should be necessary to con, During the evening it was announced that Mra. Sherwood would contribute evj ss, to the Convaleccent Fund sherwood would contribute \(£\) ) 5 . to the Convalescent Fund, a fund largely augmented by the generosity of Mr. and Mra, Harry J. Veitch. on the occasion of their silver wedding, \&i00 being then given Other sums were promised to various purposes, including Mr. A. Moss, \(\mathrm{E}^{2} 2 \mathrm{~s}\) 。 ; Mr. Iceton, who becomes a life member, \(210 \mathrm{10s}\); Mr. Mott, the sum of E 10 l 0 s . Mr. Arthur W. Sutton, Reading: Mr. Jones, Lewisham; and Mr. Wythes, Syon, hon. mescbers of 218 . each annually, with donations of the same amount from Mr. Geo. Munro and Mr. A. F. Barron. The tables and the room were profusely decorated with flowers and plants, supplied chiefly by Messrs. Jas. Veitch \& Sons, Meatrs, B. S. Williams \& Son, Mesers. Laing \& Son, Messrs. Cancell \& Son, and others. A plentiful and excellent Messrs. Cannell \& Son, and others. Aplentiful and exceinent dessert added to the
The Chairmen, when reaponding to the toost of his health. stated that W. J. Nuttiog, Esq., had hindly consented to preside at the next annual metting in 189\%. The Secretary is Mr. Colline, and his addsess 9, Martindale Road, Basham, S.W.

\section*{Law Notes.}

\section*{WRONGFUL DISMISSAL OF A GARDENER AT ILKLEY.}

Heaton v. Courtenay.-Mr.W. Robinson appeared for the plaintiff, Hy. Edward Heaton, gardener, of Ilkley; and Mr. Child represented the defendant, Jaf. W. Coartenay, who resides at Netherwood, Ilkley. The claim was for £4 10s. for wrongfal ditmisal, or in the alternative, four weeke' waget.
This wat a recent case, in which a gardener of experience, who had been employed by Nir Iraac Holden, Mr. Clement Holdaworth, and other gentlemen, was dismianed by his employer with what was practically a fortnight's notice, after baving worked for him about eleven week. The gardener had received a wage of 22 s. per week, with house and coal. He found the garded, and eapecially the Vines, greatly neglected, and in a very bad itate; and on many diay he had worked from 4 or 5 o'clock in the morning till 9 and 10 o'clock at night. He had one man under him, and he had also exira asmintance for a few weeks. On Augut 10 Mr . Courtenay introdaced a jobbing gardener for the parpose of
auperintending the gardener，and under whone order he was to work，and on his remonatrating with his employer，and refuning ae head gardener，to work under another man＇s ordern，he wal forcibly removed from the garden．
This his Honour took to be the cras of the matter． The only question，he said，wan thas an order he was bound to obey．It depend a great deal apon the ponition of the man．If he takes his orders from another man，you place him in a aubordinate position． The defendant＇lawyer contended that Mr．Courtenay had only one head gardener，and that the plaintiff was not the head gardener；and also that he had been given a fortnight＇m notice whereas he demanded a month＇s．Hi Honour holding that he was right about tbat，aaid in conclanion that he was not at all surprised that the plaintiff reaented the order to take his direction from another man who described himself in his evidence an a jobbing gardener，and refused to accept a fortnight＇s notice；and hagave judgment for the amount claimed．Extract from the ＂Wharfedale and Airedale Observer．

\section*{Trade Notice}

Me．John Cranston，having left Kigg＇a Acre Narserien，all commanications should now be addressed to him at Little Birch，near Hereford． Mr．Cranston intends to devote his attention to landecape gardening，the laying out of orchards， valueing nursery and garden produce，\＆e．

［The term＂accumalated temperature＂indicates the aggre gate amount，as well as the duration，of degrees of
temperature above or below \(42^{\circ}\) Fahr．for the period temperature above or below \(42^{\circ}\) Fahr．for the period
named：and this combined realt is expresed in Day－ named：and this combined result is expressed in Day－
degrees－a＂Day－degreen eignifying \(1^{\circ}\) continued for degrees－a＂Day－degree＂signifying \(1^{\circ}\) continued for
twenty－four hours，or any other number of degrees for twenty－four hours，or any other number of
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& \text { More }(t) \text { or lesa }(-) \text { than } \\
& \text { Mean lor the Week. }
\end{aligned}
\]} & \multirow[b]{2}{*}{} & \multirow[t]{2}{*}{} & \multirow[t]{2}{*}{} & \multirow[t]{2}{*}{} \\
\hline  &  & \[
\begin{aligned}
& \frac{9}{3} \\
& 0 \\
& 0 \\
& 0 \\
& 8 \\
& 8 \\
& 8
\end{aligned}
\] &  &  &  & & & & & \\
\hline & & \[
\begin{aligned}
& \text { Day- } \\
& \text { deg. }
\end{aligned}
\] & \[
\begin{aligned}
& \text { Day- } \\
& \text { deg. }
\end{aligned}
\] & Day． deg． & Day． deg． & 10the Inch． & & Ins． & & \\
\hline & & 33 & 9 & ＋335 & ＋ 255 & 9 & 189 & 37 & 32 & 29 \\
\hline & 2 & 35 & 12 & ＋ 41 & ＋ 408 & 1 － & 150 & 23.7 & 42 & 36 \\
\hline & 1 & 37 & 3 & ＋ 285 & ＋ 205 & \(3+\) & 148 & 238 & 39 & 35 \\
\hline & － & 48 & 1 & ＋ 201 & ＋ 207 & 1 － & 124 & \(18 \cdot 8\) & 26 & 12 \\
\hline & ， & 45 & 6 & ＋ 228 & ＋ 258 & 3 & 120 & \(18 \cdot 2\) & 8 & 38 \\
\hline & blo aver & 57 & 0 & ＋188 & ＋+390 & 6 & & 9 & － 3 & 42 \\
\hline & b 2 & 38 & 7 & ＋178 & \(8+357\) & \(2-\) & 150 & 29.2 & 2 35 & 34 \\
\hline & 71 & 40 & 0 & ＋ 288 & ＋ 248 & \(3-\) & 137 & 28.7 & 7 35 & 37 \\
\hline & 8.1 & R2 & 0 & ＋ 198 & ＋ 333 & 8 － & 123 & 24.8 & 829 & 4 \\
\hline & 0 a & 40 & 1 & ＋ 115 & ＋261 & \(7+\) & 187 & 265 & 36 & 32 \\
\hline & \(2+\) & 67 & 0 & ＋ 47 & ＋18i & \(2-\) & 140 & \(27^{\circ} 0\) & 25 & 35 \\
\hline & \(2+\) & & 0 & ＋ 271 & \(+248\) & 6 － & 137 & 20.3 & 49 & \\
\hline
\end{tabular}

Tho district indicated by number in the first column are 0，Ecotland，


\section*{THEPASTWEET}

Trie following summary record of the weather throughout famished from the Metoorological Ofice ing October 19 ，is aminhed from the Metcorological Ofice：－
＂n most pastact of our faland，but raln had vet in in the woek
west，and duriog Monday and Tuesday the unsettled condi tions spread to all districts，the rainfall over＇England，N．E． being heavy．By Wednesday fair，dry weather again prevailed generally，and continued until the end of the period．
＂The temperature was rather below the mean in the north and north－west，and a little above it in some of the south－ western districts，while ia＇England，E．and S，and in Ireland， N．，＇it just equalled the normaì．The highest of the marima were recorded on the lath over England，and on irregular dates in Ireland and Scotland，and ranged from \(67^{\circ}\) in ＂England， \(\mathbb{S .}_{0}\) ，and \(65^{\circ}\) in＇Ireland，S．and the Channel Islands，to \(57^{\circ}\) in＇Scutland，N．＇The lowest of the minima were registered，as a rule，on the 18 th，when the thermometer fell to botweeu \(25^{\circ}\) and \(29^{\circ}\) over＂England，＇ \(27^{\circ}\) and \(33^{\circ}\) in ＂Irelan 1 ，＇and \(25^{\circ}\) and \(29^{\circ}\) in＇Scotlaud．＇In the＇Channel Islands＇the lowest reading was \(45^{\circ}\)

The rainfail greatly exceeded the mean in＇England，N．E． and Ireland， \(\mathbf{N}\). ．＇but elsewhere chere was a considerable deficit． Over southern，central，and eastern England the fall was very slight．
＂The bright sunshine was more prevalent than during the preceding week，and cxceeding the normal in most districts． The percantige of tha possible duration ranged from 49 in the ＇Channel Ielands，＂and 42 in＂Scotland，E．，＇to \(25^{\circ}\) is＇Euglaud， E．，＇and 25 in＇Ireland，S．＇

\section*{Market 8 。}

\section*{COVENT GARDEN，October 24．}
［We cannot acoept any responsibility for the aubjoined reports．They are furnished to us regularly every Thursday，by the kisdnese of eeveral of the principal alesmen，who revise the list，and who are responsible for the quotations．It must be remembered that these quotations do not represent the prices on any particular day，but only the general averages for the weel preceding the date of our report．The prices depend upon the quality of the samples，the supply in the market，and the demand；but often several timesin one dav．ED． 1
OUT FLowers．－Averagi Wholeahle Prioga．
\begin{tabular}{|c|c|c|c|}
\hline Arums，p． 12 blooms & \[
\begin{aligned}
& \text { a. } d_{0}=d \\
& 30-60
\end{aligned}
\] & Orchids：－ & 8．\({ }^{\text {d }}\) \\
\hline Azalea， 12 apray & 09.1 & Cattloys， 12 blma ． & \(60-120\) \\
\hline Bouvardias，per oun． & 06 & Odon toglosanm & \\
\hline Carnations， 12 blms ． & 10 & ． & 30 \\
\hline Chrysanthemums， per 12 blooms ．．． & \(10-40\) & Pelargoniums，scar－ let．per 12 banch & \\
\hline Chrysanthemums， per 14 bunches． & 30－60 & － 12 sprays ．．． Pyrethruma， 12 ban． & \[
\begin{array}{ll}
0 & 8 \\
2 & 0
\end{array}
\] \\
\hline Eucharis，per dozen & 30－50 & Roses，Tea，per doz． & 10 \\
\hline Gardenias，per doza & y 0－40 & oloured，p．dz． & 20 \\
\hline Lapageria，per doz． blooms ．．．．．． & 06．16 & yellow（Maré－ chals），per doz． & 30 \\
\hline Lilac，Ereach，p．bun． & \(30-50\) & red，per dozen & 0 \\
\hline Lilium Harsieid，do， & 30－60 & mized，dz bun． & 0 \\
\hline Lilium lancifolium， per dozen blooms & \(1 \mathrm{~J}-20\) & Stephanotig， 12 sp：． Tuberoses． 12 blmas． & \[
\begin{array}{ll}
2 & 0 \\
0 & 2-
\end{array}
\] \\
\hline Lily of the Valley， doz．sprays & \(10-26\) & \begin{tabular}{l}
Violets， 18 bunches \\
－Parme，French，
\end{tabular} & 18 \\
\hline Maidenhair Forn， per 12 bunchen ．．． & 0－60 & per busch \(\quad\) Czar，do． & \[
30
\] \\
\hline Marguerites， 12 bn ． & \(10-30\) & Mimesa or & \\
\hline Iignonette， 12 buv． & 20－40 & Acacia，do． & － \\
\hline
\end{tabular}

\section*{Plants in Pots．－Aterage Wholegale Pmicis．}

Adiantum per
Adiantism，per dox．if 0－12 0 Ferns，various，doz． \(50-120\)

Aspicistra，per cach \(50-15\) ．Ficus elastica，enoh \(10-76\) Chrysanthmums， p ．

\section*{doz，pota}

Cyperve par an 6 0－12 0
Dracsena，each dozen Fricas，various，dooz． \(120-240\) Ericas，various，doz． \(90-240\) Evargreen Sbrubs， in variety，dos．．a Terns，small，dox．．．．．

Tbuit．－Averaet Wholealit Pricies．


\section*{Melons，each ．．．}

Peaches，1st size，doz

\section*{Vegrtablag．}
 Cuaumbers，perdox， \(10-30\) Tomatos，Home
Mushroocas，Iodoor． per 1b．
Onions，Dutch cwt．bag．

Yicus elastica，eaoh \(10-76\)
Foliage plante，doz． \(120-240\)
Lilium Harrisii，per
dozen pots … \(120-24\)
Marguerites，p．dox． \(600-12\) Mignonette，p．dos，\(\quad 0-60\) Paims，various，ea， \(20-100\) \(\begin{array}{lll}\text {－gpecimens，ea．} 10 \text { 6－81 } \\ \text { Solanum，per doz．．．．} & \text { g } & 0-12\end{array}\) Spirseas，per doz．．．． 9 0－12 0


Potaton．
Markets remaip firm，best samplee bsing most sought after beet samplee，70s．to 908 ；ordinary， \(35 \%\) ，to éos．per ton

\section*{sEEDS．}

Londor：October ．23．－Measrs．John Shaw \＆Boci，his Merchants，of Great Maze Pond，Borough，Lowdoc， 11 desoribe to day＇s seed market as thinly attended．Olorer Grass seeds are unchanged in value．Rather more attection is being given to white Clover seed．Winter Taren，with improved sale，come forward more sparingly．Bye contion exceedingly cheap．Haricot Beans have become extres） scarce，and being in atrong request have adrancod a forthe 2s．per qr．Blue Peas also tend upwards．Canary mimem tinues to improve alike in value and demand．Wo m Hemp seed just arriving offers at tempting raten Bman no alteration in either Mustard or Rape sead．

\section*{FRUITS AND VEGETABLBS}

Borough ：Oct．22．－Quotations：－Cabbıges，k，w 33．per tally；Onions，28． \(9 d_{0}\) to \(3 s_{0} 9 \mathrm{~d}\) ．par bag；Hormm 18．to 1s．6d．per bundle；Apples，2s．to bs ；Pomant 7s．per bushel．
Spitalfields：Oct．23．－Quotations：－Banem amm 1s．6d．to 1s．9d．per dozen；Savoys，4s．to 5s．per bili： Cabbages，4s．to 6s．do．；Cauliflowers，6s，to on in Carrots，1s．6d．to 2s．per dozen bunches ；Turnipe，le w to 28. do．；Cisery，8s．to 98 ．per dozen buadles；Hotionm 18． 3 d ．per buadle；Apples，cookers， 28 s to 3s．©d．per bitill do．，dessert，3s．to 48．do．
Stratford，Oct．22．－There has been a full bupply ding the past week，and a fair trade done，except ia Potato，time have been eomewhat a drag．Cabbages，2s，to \(\overline{\mathrm{f}} \mathrm{r}\) putint Savays，2s．to 5s．do．；Greens，9d．to 1s．6d．por berim \(1 s, 6 d\) ，to 28 ．日d．per dozen bunches；Cauliflowess， 2 ，to 2
 par sieve：Marrows，Vegetable，2s．to 3s．par tally；Pum English，2s．6d．to 6s．per flat；Tomatos，Raglish，24，U4， 3s． 6 d ．per peck；Cucumbers，framed， 8 Od ．to 2 2 ．per doen； Beans，Scarlet，1s．to 1 s ． 3 d ．per bushel ；do．， 2 s ，to \(2 \mathrm{~s}, \mathrm{M}\) ，pow bag；Beet－root，2s． \(8 d\) ．to 38.0 dd．per dozen bunches；Chem， 7d o to 18．per roll dozen：Horse－radieh，1s，1d，to h． 3 yer bundle；Parsley，18，to 2s．per dozon buecham； Turnips，1s．6d．to 2s．per dozen bunches；do．，23s．to 353，pu ton；Carrots，household，25s．to 328． 6 d ．par ton；ton，whth feeding，23s．to 25s．per ton；Mangels，13s．to 16s．pertim Swodes，20s．to 24s．per ton ；Ouions，Gheut， 2 s .6 d ．to \(8 \mathrm{~s} . \mathrm{m}\). per bag；Dutch do．，28．9．4．to 3 3s．per bag；Portugel st ed．to 58．6d．per case ；Auples，English，coukere，2s．to 48，Wd pe bushel ；do．，dessort，2s．bd．to 4s．per sieve．
Farringlun：Oct．24．－Quotations：－Cabbages，Collunt \(3 s\) ．per tally；Caulitlowert， 25 ．per dozen；Sprouts， 25.84 hall－bushel；Celery，18．per ioll；Leekn，18． \(6 d\). per dos，Te nips，2s．6d，per bas；Carrots，2s．duo ；Onions，3s．6d do Parsley，2s．per dozen bunches ；Herbs， 38 ．per dozen \(;\) Lit chukes，2s．Bd．per hali－buthel；Paranips，18．per iem A pples，Bleaheims，6so per bughel；Wellingtons，3so U6，da． Novia Scolia Gravenstein，138．per barrel；Ribstone，Ob buble Pears，wtewing，28．od．per half－buskel；Callabaces，75． Grapes，Finglisb，black， 18. per lb ；Almeira， 14 so par hand Blackberries，bs，per half－bushel；Eoglish Torestas，tis 12 lb 。；Grenoble Walnuts，bs．od．per bag（ 3 l lb ）

\section*{potatos．}

Borover：October 22．－Quotations ranged from jam th 85s．per ton．
SPITALFIELDA：October 22．－Quotations：－Reading Gimy 30s．to 85s．；Sutton＇s Abundance，B0s．to 60s．；Main 50 s．to 70 ．－Bruces，45s．to 60 s ；Imperators，53s．to 70 h Fidler＇s Colossal， 458 ，to c0s．per ton．
STReTTORD，Oct．22．－Quotations：－Bruces，daft soil，3flu．M． to 40 s ；light do． 458 s ．to 60 s. ；Beading Gianth，wot mom
 Abundance，b5s．to \％os．par ton．
Farringdoa：Oct．24．－Quotatione：Snowdrope， 908 s ；Hebrons， 60 s ，to 80 s ．F Regents， 60 s ，to \(70 \mathrm{~s} . ;\) Pruit 30s．to 608 ．：Imperators， 458 s to 603 ；\(M\) Mgnums， 40 ，to per ton．

\section*{HAY．}

Averages．－The following are the averages of the pitut
 Clover，prime，80s．to 1058 ：do．，inferior， 50 \％to mint best，60s．to 908．；do．，inferior，38s．to 60 s －
to \(853.6 d\) 。 ；and Straw，20s．to 4 Ma ．per lond．

\section*{CORN．}

Averages．－Official statement of the ariage piom Britioh Corn，imperial measure（ qr ．），for in mot October 19，and for the corresponding wedr in
Wheat， 24 ． 11 d ．Barloy， 258,84 ；Oats， 1330 ． 6 d ．


- Oncing to the large increase in our circulation, 90 are under the recessity of gaing to press sume hourn eariior. Our contributers wisi kindiy aid us by semding their con mumication us not later than Wiedncsilay.
- Plan for Ice-holse: \(\%\). The plan for a good ice-house must depend upon the lccality for which the particalar one is riquired. If the soil is very porous the well would perbap be best above ground with double walle. The figare given is of one

partially underground, and explaing itself. The dimentions of a good house thould not in any cass bo less than those in this case
Boors: J. D. Fruit Farming for Profit. by G. Bunyard, publithed by F. Banyard, 29. Weak Siruet, Maidatone. Fruit Culture for Small Holdings, by J. Cranston, pablished by Jakeman \& Carver, printert, Herelord. Market Garden Husbandry, by W. Ablett, pablished by Chapman \& Hsil, London.-A. Lefort, Graville St. Honore. The Romarian's Year Books published by Bamrose \&c Sone, 23, O.d Bailey, London, E.C.
Cabnation: \(H\). J. Ross. A monatronity, known as the Wheat-ear Carnation. It is not very ancommen.
Cauliflowers and Broccoli: V. A. G. The meamon for the first has been a most favourable one, and the prodace is finer and better than usual. Broccoli, on the contrary, are still growing, and mould hard weather be experienced, many of the plant will naffer. We should advise the lifting of all exuberant plants and replanting them, their heads inclining to the north. This is readily done b) two men, one of whom should use the spade, and the other handle the plant, and in anch a tender manner that the leaver be not injured in any way.

Corbection - We regret that in the liet of abbacriber to the Testimonial to Mr. A. F. Barron given ia our latt insas, the name of the \(\mathbb{R e v} . W\). Wilks was selled Werks.
1)endrobicms: \(C . S\). It is most likely that the Dendrobium nobile are making growths on the peudo-balbs, in place of flowere, througt the planta not haviog had a afficiently long reat in a cool house. Ot water may have been afforded too soon. Sumetimer, when all other necessary conditions are observer, the plants will grow ra indicated, if the house in which they are kept is not aufficiently \(v \in n\) tilated.
In a French Bran house: Enquirer. Tomator would sacceed with the Beans, but both must be kept free frim weeds.
Libiom eialcedoniccit: W. J. N: The oid bulb froduced two duwer ahoots, which is in excese of what is usual, and when this is the case two bulbs form, and the mother bulb as a consequence becomes ao much weakened that it in not likely to be of any more ute.
Labig Prabs: R. H. B. Twenty-aight ouncen is a good weight for Pitmaston Dachess, but much heavier examples have been seen of Uvedale's St. Germain, Growse Dillon, Chaumontelle, Beurré Diel, and Catillac.
Miss Joliffr Carnations Iying: Thos. Simmonds. The plants are probably infeated with eelworma at the roots. If you will zend a specimen or two we thall be glad to inform you of the cante of their lose.
-• Plants, Frutts, etc., to ar Named.-The applicatrons to name flowers, and especially fruit, ars so numerous at this season as severely to tiax our resowress. They entaul na expenditure of time labour, and money, "f which our
reaters have no idex. We are aluwys willing to nbign our ©rrespondents as far as we c se. but the edzeng of the Gardeners' Chronicl 28 our buiness, to which everything elise must give way. Correapontents are respectru'y requested to observe the ruls that not more than sirs specimens can be dealt with at a time. If more are sent, it woul d bs a grasofnal act on the part of the
senter. to send also a smull contribu, ion to the Gurdeners' senter, to send also a smill contribu, ion to the Gurdeners'
Orphin Fund. Correspondents sending plante or fruits to be named, or asking questions demanding time and research for their solution, must not expect to obtain an answer to their enaitions in the current wank. Srecim ns should be good onps, carefully packed and numbered. Leaves only, or Whoristhe varieties cannot. as a rulto. os namai
Names of Fruits: J. P. 1, Ecklinville Seedling; 2 Scarlet Golden Pippio; 3 Cux'A Orange Pippin 4. Fearn' Pippin; 5, New Hawthornden; 6 Fuperor Alexander. - R. Botting. Apple, good pecimen, Gloria Mandi. - J. Twitchen. 1, Napoléj口 Pear; 2, Remer; 3, Emperor Alexander; 4, Alfriaton; 5, Lady Henniker; 6, not certain. Buh. 1. Dichess d'Angoulène; 2, Uredale's St. Germain; 3 not known; 4, Bearte Diel; 5, not known; 6. B-amley's Pipoin.-Answers. Apple:, 1. Braddick's Nonpareil; 2, Grangs's Pearmain; 3. not known; 4, Clavgato Prarmain; 5, Kerry Pippin; 6, Benhaim Orange; Pears, 1, Veralam 3. Ballissme d'Hiver; 6, Bergamot d'Esperen; nthera not known.-T. J. 1, Manka' Codlin; 2, Kirke's Lord Nelaon; 3. Schoolmater; 4, Hambledon Doux-ans; 5, Pear. Jersey Gratioli; 7, CJx's Orange Pippin; 6, Bearré Hardy.-G. \(D_{0}^{\prime}\) 1. Beursé de Capianmont: 2, not determined. Geo. Albhey. Pear, Gansell's Bergamot.-A.C.G. 1. Besspool; 2 Forge. The varieties you mention are batter exhibition fraits.- \(E_{0} J_{j} 1\), Pear, Noveara; 2. Batarıé Dafair; 3, Bearié d'Aremberg; 4 Searlés Rasett; 5. White Nonpareil; 6, Oid Nonpareil.-G. B. 1, Coz's Orang Pippia; 2, Sturmer Pipiin; 3, Clarke' Spedling; 4, Stirling Cattle; 5, Tower of Glamis ; 6, not recognised. C. B. Apple not known to us, probably not jet introduced; a handnome froit - F. K. y. Co We do not recognive your Apple; it reeme to b3long to the Sturmer mection. - W. Jomes. 1, Peme General Todtleben; 2, Bearré Saperfia; 4, Maró chal de 1a Cour; 5 Apple, Hoary Morning; 6, Fearn's Pippin.-W. E H. 1, Fearn's Pippin; 2 Cox's Orange Pippin; 3, not known; 4. Cellini ; 5. not known. - \(F_{0}^{\prime} K\). \& Co. 1. King of the Pippins; 2, not known; 3. Rpmer; Poar, Josephine de Malines.-Claud Lonsdale. 1, Pear, Bargamot d' Esperen; 2, Baurś Diel, larga apscimen* ; Apple, 1. Scarlet Nonpariel; 2 Grange's Pearmain; 4, Kerry Pippin.-H. D. H. Apple, Scarlet Nónpareil.-W. W. 1, Dachense d'Angouléme; 2, Bearné Diel; 3, Northern Greening; 4. not recognised: 5 , Gravenatein; 6, Court Penda Plat.-F. H. Pear, Duchesse d'Angoulème.
Nauss or Plavts: Correspondents not ansooered in this insus are requested to connult the neast numbar:A. R. Phaseolua Caracalla.-A. S. 1, Matricaria
inodora flore-pleno; 2. Pgretbram Parthenium flore-pleno.-E., M.C., Kingstown. Glotba seceiliflora, Bot. Mag.. to \(1428-\) R. M. 1, Maranta Makoyaa: 2, Xingiber ufficinalis (Ginger-plant). You may grow it as an evergreen, or reat it for a time when all the growth are matures, and no more leaven coming.-A. B. The Hlower of Cgpripedium wa crushed. Tnincard-board boxes are of no ase for mending flowers through the pot. If the leave are somewhat like those of C. barbatum it is C. niamente
Nerines : J. D. The Nerines, owing to their bavide been loosely packed, were quite dentrojed. \(S \in n d\) more llowers properly packed.
Udontoglossum craspum: Devoniemais. It is a very unasual vecurrence for a plant of this appciot to produce a flowar-apige from the apex of the bulb, and in your case it is still more extraordinaly seeing that anotber apike in being produced from the base concarrently.
Omission froms the Garuen Directories J. Coomber. The garden not finding a place in these publications, the publiahers will be only too glad to insert it if you will communicase with them.
Oncidiom tigrinum: Devomiensis. Ie is notan utcommon thing for this plant to have two apikes to the buib, but with it, and aifo the Odontoglonam, there is strong evidence thas you get a good now of Aowere from your p!avte, and that in the culture of them you will be pucceseful.
Pebblestone Pippin: Bubernia. We know of no variety of this name. The other queation afext week.
Pleione: R. M. The Ochid is Pleione lagenaria. Ater flowering it should be freely watered until the leaves tarn yellow and fall off next year, when it should be keps dry uatil the llower-bads appear.
Raspberaies: T. P. Very fine fruit for this or any seazod.
Strawberries in Pots now in Bcoon: W. \(H\). \(A\) We thould fear the plante ere ruined for forcing purposen, unless you can put a atop to the flower lag. Do not expose them to the rain, bat place them in frames or in atacke in layers, with balfrotien leavea between the pots. These may stand againat \& wall facing north, or they may atand frep, the plant than, therefore, facing two ways.
Violet Czar: E.A.C. It it late for traneplantiog Violeta into pits or housee ; moreover, the old plants would not bloom so satiafactorily, as least, at any early part of the winter, as young plante which have been suitably prepared for this kind of cultare. A greenhouse is not at suitable plac either, the plants being too far from the glass if planted out, and artiticial heat is iniosical to their well-being. You may cultivate Violets in pote on a greenhouse mbelf. Large ones alauld be employed for them, so to pot up the mother and half-a-dozen of the atrongest ranners, bat this mutt be done in September.

Conmumications Received.-C. P.N.-G.W.-H.W.W.N.E.B. - T. C. - H. M. - Harrisın Weir -W. W. W. R. L. H.-A.D.-R. D. -R. Y.-A. H.-R. Veiteh \&o Non--
 W. H. -J. H.-A. M.-H.J.C. - M. T. M. - W. K. - K. V. G. 8.-M.T.-W.W.-E.C.-Dicksons-East Anglia, - M.-Gark-S., next week (thanks for donations East anglia, - Mells Orphan Fund)

DIED.-Ceristran Fabdemice Bause, of Morland Nursery, South N srwood, London, 8.E., Aged fiftysix yeara, pased away October 23, 1895.

CONTINUED INCREASE in the CIRCULATTON OF THE "GARDENERS" CHRONICLEE."
Important to Advertisers. - The Publisher has the actisfaction of announcing that the circulation of the "Gardeners" Chronicle" has, sinse the reduction in the price of the papsr
Inoroesed to the extent of more than 80 per cent., and that it continues to increase weekly.
Udvorticers are reminded that the "Chronicle" circulates among OOUMTRY GENTLEMEX, AKD ALL CLASOES OF GARDEKERS ATD anrdea-Lovers at home, that it has a specially largs pories and oolombe orbculatios, and that it is presned for refurence is all the prinolpal Librarias.

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G. Wood, Gardener to W. Grosvenor Jennings, Esq., Beamhurst Hall, Uttoxeter, wishes to recommend a strong active youth as above. Four years' good character.
(.) PREMIUM. - Sitastion wanted for a Gardener. Two years and a haif 17 , as IMPROVER under Gardener. Two years and half yoo character--Addrese,
I MPROVER.-Age 24; seeks situation in a and Out- door stuff, and twelve monthe in a bursery outside.
Cobnor House, Chidham, near Emeworth, Hanta.
IMPROVER, Indoors and Out. - Mr. WARD, mend a young Man. age 20 ; Rood character.-Apply as above
Alad
2.3. Wanted to place industrious Youth tuition. (age 19), as IMPROVER, under Head Gardener's


TO GARDENERS, \&c- Sitaation wanted in
and Fruit Age r8.-BENNETT, Ivanhoe, Worthing.
\(\Gamma_{\text {by }}^{O}\) NURSERYMEN, \&oapectable man, wituation wanted,

\(\Gamma\) O NURSERYMEN.-Man, age 24, requires
 racter.-A. P., 21, Parl End, Bromley, Kent.
TO NURSERYMEN, \&c.
25), well up in Cucumbere, Tomatoung man Graper, Peaches. Pot Stuff, and general routine of Market Nursery.-F. \(8 \mathrm{MITH}, 29\), Bonchurch Road, Hassocks
\(T\) O NURSERYMEN.-Situation wanted, by young man, gage 21; used to general Nursery Work.
years'
Rood character. \(-\mathbb{F}\). S., 2, Cecil Road, Gravesend.
T
O NURSERIMEN and SEEDSMEN.-Son ment. Age 28. Woursman is open to a permanent engageposition. Thorough knowledge of all branches.-CONSTANT, 1, Wellingtoa Streat, Strand, W.C

ITUATION WANTEI) by first-rate Man, of and in the details of vall departments of horticulture. Accus,
tomed to tomed to strictly economic and systematic management. Age 37, married, one child.-GARDENER, 3, City Road,

HOPMAN:- Ten years' experience in all branchps of the Seed Trade. Good references,-H. Jo,
Messrs. Watkins \& Simpson, Exeter Sto, Strand, London, W.C.,
A SSISTANT SHOA Trade. GHOPMAN or ASSISTANT.-Twelve years experience in all deparmente of the trade. Firticlan
eferenoes.-BEGONIA, 41, Wellington Street, Strand, Loadoa.

MAN's INGRATITUDE - We have it on shakspeare's sathority, that the winter wind is not more unkind than man'a ingratitude. In many cases this is anfortumately only too trae. Th-re are timen, h) wrever, when
the benefit received is so great thut ingratitule ber possible. When life is rendered a burder to us by siclinese, and someone comes and restores us to health, we should be base to HOLLOWAY'S PILLS and OINTMENT, which have cured them of all atomach and liver troubles, banished headache, flatulency, indigestion, and low spirit, and cleared their
orstems of gout, sheonatiam, sciatica, and anl similar ailments.

\section*{}

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We beg to inform all readers of This Paper that the Fourth Edition ( 100.000 coplen) of our Revised PRICE LIST, consisting of 400 pp . and about 1200 Illustrations, bound in cloth, is Now Ready. We shall have much pleasure in forwarding to every person one post-free on application. This List Is the most complete in the Trade, and has cost several thouband pounds to produce.


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No. 462.-Vol. XVIII.
SATURDAY, NOVEMBER 2, 1895. \(\square\)
Price 3d.

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Agricultural returns artichole, floweri the Jerusalem Baponinvillenonial Yund Bulb garden the Iris Kıempferi Cambridge Botanic dens, notes from Chiswick ... Fosail tree, \%
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624 Orchid notes cont. 25 Plants, now or note B19 Plants, new or noteMusa, a hyh Pruning fruit-trees … \(\quad\) B 16 Roselyn, Stamford Hill, Orchids at
Societies-
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Royal Horticultural. Royal Horticultural of Ireland Turvey
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Weel's Wort, the-
Fruit ander glaso
Hardy fruit garden Kitehen garden, the Orchid houses, the
Hlants under clase Hants under glass

B EAUTIFUL FLOWERS for SPRING SUTTONS' INIMITABLE BEDDING D HYACINTHS.-Sutton's Inimitable Scarlit, Blue and Pure White, each per dozen, 4 sf ; per 100,288 . W. G. Mar Phall, Esoc, Norton Manor, ayy: - .". The effect produced by your Hyacinths last, year at my entrance-gates was the tall of
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 UTHBERT'S SPECIALITE MUSHROOM USPAWN. Always alike; moat productive. Hundredr. of tertimonials. Per bushe, ss, Bulb, and Pant Merehanta, Southmate. K. Established 1797 .
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SMILAX, MYRSIPEYLLUM ASPARAGOIDEA, nice young Stufi in thumb-potaready to pot on, Nuresies, Hillingdon Heath, Uxbridge.

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WANTED - CYPRIPEDIUM INSIGNE ATHOMTANUM in exchang for NEW PLANTS and ORCHIDS Outomer': own election.

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PLANT NOW for SPRING FLOWERING
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DICKsONS, Bulb Growern and Importern, CHESTER.
NOW is the TIME to PLANT PAEONIES, PI RETHRUMS, Gaillardias, and Delphiniums.
TARLY Prolific Plum.-A fine batch 1 of feathered trees, with very fibrous roots. Price sccord ing to quantity. Buyers of ALh kivel of ERUIT TREEI wo
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PLANTS, \&c. Uver forty Medals awarded. Catalogue free, COLLINS and CO. 39, Waterloo Road, London.
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QUPERB ORCHID3, CHEAP.-Thousads P. MCABTEUB, The Kondon Wernery.4. MaidaVale. London, W 1 USHROUN SPAWN, 2\%. per bushel

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HERNS AND DECORATLVE PLANTS !-(TKAUE):-Fernis in 2 -inch pote, Stove and Greenhouse, 30 bet welliag sorts, 125. 100: ditto Large, in 4H's, 10 bent melling sorts, As. doz.: etrong seedlings. 8s. 100, b0w. I K60: Adifor mom cubeatum, for making large plants quickly, 1Bs. and 20r, 100: Araliam, Ina, 100; Cyperun, Aralas, Grevi, \&as, Begoniat, Solanuma, in
 and Erica hyemalis. 12s. doz. Lintusia, Packed free. Cash with order. -J. BMrTH, London Fern Nurverien, Loaghborough Junction, London, 8.W.
ASPARAGUS, for Forcing. - Five year ald, 15s. per 100. On reil, cash with order. My Aoparagus elway makes top price at Covent Garden.

B E E S O N' B M A N U B E W. F. BEEBON. Carbroot Bow MIIH, Bhemeld.

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To H.R.H. THE PRuNce OF Wham
M ACKENZIE AND MONCUR, Limited,
 burgh, London, ad Olagow. Plass and Fetímatey for all and Hesting apperater free. Spleedid Illumbated Catalogue.

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the Duples Upright'Tubular Roilorm, King'aRoad, Chelema. of Telegraph Addrese, "Hortulanus, London." Telephone, No. 87 's

\section*{FORTHCOMING SALES By messrs. PROTHEROE \& MORRIS,}

\section*{Central auction rooms and estate offices. 67 and 68, Cheapside. e.c. catalogues for all auctions sent free by post on appligation}

\section*{Wickford, Essex.}
freriold land, 2 to 40 acre Lote, for Market Gardening. Fruit Growing, and Re-sale in Plots; almost adjoining

MESSRS. PROTHEROE and MORRIS will SELL by AUCTION. at the Mart, Tokenhouse Yard.
, EC.. Oo TUESDAY NFXT, Nor, 5 , at 2 o'Clock, in 12 London, E.C.. oo TURSDAY NFXT, Nor. 5 , at 2 o' \({ }^{\text {Clock, }}\), in 12
Lots, valuable FREEHOLD ESTATES, of about 2 an acres, subLots, valuable FRFEHOLD RSTATES, of about 2:7 acres, sub-
divided into lots of from 2 to 40 acres, and known as the divided into lots of from \(2 /\) to 40 acres, and known as the
Beeches and Bridge House Farm, possessing extensive frontBeeches the main London and parish rosds, offering numerous fine sites for dovelopment into Building Plots, several enclosures of tine Pasture Land. two capital Residences, with gardens, Arable Land suitable for Martet Gardening, Fruit Growing, Poultry Farms, \&c
May be viewed any day prior to the Sale. Particulars and plans rasy be had at the Custle Hotel, Wickiord; of Mesars. Coleman street, E.C. : and of the Auctioneers and Land \(\Delta\) gents. 67 . Cheapside, London. E.C.

\section*{Brentford, Midolesex.}

Valuab'e FREE pplendid Fruit-growiog district, about in miles from Covent Garden Market. For Sale with possession.

MESSRS. PROTHEROE and MORRIS will SELL by ATIOTION, at the Mart, Tokenhouse Yard, London, EC., on TUESD 4Y NEXT, Nov 5, at \(20^{\prime}\) Clock, the Frethold Property known as the EALING PARK NURSERY, taining a total superficial area of over 24000 feet, the whole heated by more than 560 ) feet of hotwater-pi ping, with 6 boilers and stokehales; Stabling and Sheds; also, about 1800 feet-run of Brick-wall for Fruat culture ; the entire property comprising an area of about 1a. 0r. 36p.
Particulars and conditions of Sale may be had at the Mart; of Messrs. RUSTON, CLARK AND RUSTUN, Solicitors, 29 , Esse and Valuera, 67 and 88 , Cheapside, London, E.C.

\section*{Lee, 8.E.-Without Reserve.}

IMPORTANT SALE of FRUIT and ORNAMENTAL

MESSRS. PROTHEROE AND MORRIS will SELL by AUCTION, on the Hremises. The Burnt Ash S. E. KY. on TUE3DAY NEXT, Nov. 5, the Lee Siation, Ander of Messra. B. Maller \& Sons, 10,000 FRUTT and URNA MENTAL TREES, fine clean-grown stuff, in great variety and capital condition for removal, comprising 2000 Stan'ard Apples. in all the best kiods; 2000 Pyramid and Dwart traned Plums, Pears, and Cherries; Dwarf trained Peaches and Nectarines: 503 fine Limes. 8 to 10 feet; 500 Double
Scarlet and other Thorns, 300 Doub'e Cherries, 500 Lilacs Scarlet and other Thorns, 300 Doub'e Cherries, 500 Lilacs,
Desiduous Shrubs in variety, Berberis, 1:00 Standard and Dwarf Ro es of the finest sorts, \&e.
May be viewed any day prior to the Sale, Catalogues had at the Nurseries, also at the Seed Shop, 61, High Street, Lewisham; and of the Auctioneers, 67 and 68, Cheapsice, London, E.C.

\section*{Woking, Eurres.}

TERER DAYs' SALE of valuable and thriving NURSERY STOOK. Which has been carefully prepared for removal. By order of Mr. R. Collyer.

MESSRS. PROTHEROE AND MORRIS will Lane Nuraeries. Woking Surrey Premises, The Cart House Nov. 6, and TWO FOLLOWING DAYS at \(120^{\circ} \mathrm{Clock}\) each day 2000 English Yewa, 2 to 5 feet, several hundreds of each day: Thujas. and others, for hedges. screens, \&e., 100 splendia, Specimen Gold and Silver Hollies, with 2 to 5 feet steme and growth of from 15 to 25 years; ; 3000 Common Green Hollies 1 to 8 feet; Hybrid and Ponticum Rhododendrons, well get with buds; thousands of Standard Ornamental Trees for Avenue and Street Planting, immense quantities of small Shrubs, for potting and growing on; 1000 standard and Haltetandard Roses, 6000 Standard and Pyramid Apples and Plums, nost of them Fruit-bearing Trees; Flowerina Shrabs, in great variety: \(\mathbf{8 0 , 0 0 0}\) Manetti Stocke, \(\mathbf{1 0 , 0 0 0}\) Apple Luncheon will be prowided to intending purchasers. The shack may be viowed any day prior to the Sale.
Catalogues mav be obtained on the Premisen, and of the
Auctioneers and Valuers, 67 and 68 , Cheapside, Londoo, E.C.

\section*{DUTCH BULBS.}

\section*{GREAT UNRESERVED SALES.}

MESSRS. PROTHEROE AND MORRIS will and 68, Oheapoide. London, R.C., EVERY DAY, at R 12 o \(^{\circ}\) Clock large, coasignment. of NAME., EVERY DAY, at 12 o'Clock,
OROOUS, NABCISSUS, and other BUYACNTHMS, TULIPS, to anit the Trade and Privete Buyers. DROPS, AOMA

\footnotetext{
On whew moming of Bate, and Cataloger hed
}

\section*{IMPORTANT}

SALE OF ORCHIDS,
Chester Park, Fishponds, Bristol.
About Half-a-Mile from Fishponds Station (M.R.), and Three Miles from Bristol

\section*{NOVEMBER 6, I895.}

COLLECTION OF ORCHIDS Formed by the late JaMes Caispin, Esq., F.R.H.S. TO BE SOLD BY AUCTION, Without the Slightest Reserve.

MESSRS. PROTHEROE and MORRIS have received instructions from the Executors of the late Mr. James Crispin to vELL by A OOTCNO, ou the Premises
CHESTER PARK, FISHPOND, on WEONESDAY, Nov. CAESTER PARK, FISHPONDA, on WEONESDA
at 1a o'Clork precisely, without the least reserve-

The well-known COLLECTION OF ORCHIDS, Comprising amongst others :-
Odontoglossum \begin{tabular}{c|c} 
Alezandrre, & Cypripedium Seedlings
\end{tabular}
the very b
Pescatorei
Londesboroughiannm
exceptionally
flowering plants
Ramossisimuma
Poly yanthum
Edwardi
Uro-Skinnerii
On̈cidium macranthum
Lycaste Skininerii alba
Perrinii, fine specimen
elepans, receivet c.C.
Cattleya Moasiæ, fine vari \(t\) ties
Rex, fine plant
labiata
" gigna Sanderiana
aures, fine plants
Bowringiana, grand
plants
plants

Morganize, fine plants vexillarium, larg plants
Charles Canham Harrisianum superbum insigne Crispinianum, with spotted sepals
and petals and petals
villosum grandiflorum
aureum. grand variety apiculatum, fine variety Oppanum Orphanum
microchilum
Ashburtonize expanqum Haynaldianum, grand Mpecimen Madame Cappé Kimballianum macropterum Alice
Io Grandis.
The Collection may be viewed on November 5, from 10 to \(40^{\prime}\) Clock, by Catalogue to be obtained from Mestrs. CRITPIN AND MORKIS, 67 and 68 , Cheapside, Loadoa, E.O.
For the convenience of Buyers attending from a distance,
Luncheon will be provided from 11 to 12 on Moraing of Sule.

\section*{Normandy, near Gulldford, surrey.}

The NORMANDY MANOR ESTATE, adjoining the
Wanborough Station.

MESSRS. PROTHEROE AND MORRIS (in will sect by Auction MESBRS. MUMFORD AND BOND) on saturday. November 16 (and not Monday, November 11 . as previously advertised). at \(3 \mathrm{~s}^{\prime}\) 'Clock, the remaining portion of the above VALUABLE ESTATE, in sections, as follows :-
Lot.
5. Rich Herby Meadows
B. Past ure Land
Pasture Land
Fraite Farmble Land
Valuable Building Esotate, frontage \(118{ }^{\circ}{ }^{\circ}\) feet.
Very Valuable
Dwelling Honses. Glass and other Erectiong and Orehard Land
13. Cleygate Farm
14. Fruit and Building Lands...
\(\begin{array}{lll}0 & 0 & 10 \\ 0 & 0 & 30\end{array}\)
of Sale, may be had on Particulars and plans, and Conditions principal Iuns in \(G\) nilaford premises, at the place of Sale and

 Auctioneers and Supreyors, Brill. Bucka, and Thame, Ozon
and of Meary PROTHEROE AND MOREIS and of Mears PROTHEROE AND MORRIS, Auctioneers and

\section*{90,000 JAPANESE LILIES.}

Immense Consignment of 28,000 LILIUM AURATUM, 44,000 LILIUM LONGIFLORUM, 17,000 LILIUM SPECIOSUM, ALBUM, RUBRUM, KRAMERI, and MELPOMENE, and OTHERA,-PRELIMINARY NOTICE.

\section*{\(\mathbf{I}^{\text {E }}\)}

ESSRS, PROTHEROE AND MORRIS Bills of Ladig for the above, consigned to them for absolute
BALE. As Boon as the steamer sale. As moon as the ateave, consigned to them for absolute tised, and Mesers. P. \& M. Will in the meantime be gad to to recoive applications for Catalogues. The whole of the Bulbs
will bo offered on one day.

\section*{Toddington, near Winchcombe, Gloucentaribire} Great SALE of FRUIT TREES, by order of the Todding

\(\mathrm{M}^{1}\)ESSRS. PROTHEROE and MORRIS wil Todington, Winchcombe. Gloucestershire, serea murnerimen Ashchurch Station (Midland Railway, and eight from Rrent Station (Midland and G. W. R), on WRDNESDAR NEXT November 8, at 12 o'Clock precisely, in consequence the large number of lots, an immense quantity of FruTl TREES, including 5000 Standard and feathered PLUXS, co sisting of Victorias, La Délicieuse, Early Prolific, Pondil
Seedling, and other leading sorts; 300 Pyrame Quince, 1000 Farleigh Damsone; Apples; 40.000 Bleck Prolific; 30,0000 Red CURRAN TS, Raby Castle , and Imi Red Grape, and Red Scotch: 4000 GOOSEBERRTRS Duth, Bob, Lancashire Lad, Warrington, and others; 4000 Cob Nuta

40,000 FOREST TREES,
including Ash, Larch, Scotch and Spruce Firs, Horse Cheot
nuts ; 30J Linoes; 250 ARUM LILIES, in pots, \&c.
The Stock may be viewed any day (Sundays exoepted! prioe to the Sale. Catilogueg may be had ou ihe Premises, of
Messrs. HARVEY, PREEN, AND CO., Chartered Acount Messrs. HARVEY, PKEEN, AND CO., Chartered Accountanth
Brsing House, Basinghall Street, London, E.C., and Kidde minster; and of the Auctioneers and Valuers, 67 and 68, Cheapside. London, E C

\section*{Farnham, Surrey.}

Highly Attractive and Extensive SALE of NURSERT STOCI. MESSRS. PROTHEROE AND MORRIS are instructed by Mr. S. Bide to SELL by \(A U C T I O N\), with out reserve, on the Premises, the Rhododendron Namery,
Badshot Lea (the lease of this Nursery having expired), and at Badshot Lea (the lease of this Nursery having expired), and d No Home Nurseries, both at Farnham, Surrey, oa MONDII precisely each day, about 30,000 RGODODENDROM PONT CUM, 1 4 to 4 feet, fine bushy plants, remarkably well eet with flower buds; 40,000 FRUIT TREES, incluoing 6,000 2 -ym Apples, a wonderfully fine lot. grown on old hopland; man Apples, a wonderfully fine lot, grown on old hopland; many
thousands of other Fruit Trees; 10000 Standard and Dmarl Roses; 100,000 FOREST AND ORNAMENTAL TREES, sisting of thousands of Spruce. Austrian and other Firs, Larch Ash, Quick, Birch, Chestnuts. \&c.; 10,000 Border 刃hrube, iil rich assortment, planted in specimen bsiders half-a-mile lons and all in fine condition for removal ; and alco many thonsad of Erergreen, Conifere and Deciduoua Shrubs.
May be viewed any day prior to the Sale. Catalogues mas be had of Mr. S. Bide at the Alma Nurseries, Faroham, Surres and of the Auctioneers and Valuers, 67 and 68, Cheaphide London, E.C

\section*{Monday and Thursday Next.}

MESSRS. PROTHEROE AND MORRIS will their Central Sale Rooms, MONDAY NEXT, November 4. \(-\mathbf{A}\) consignment from MONDAY NEXT, November 4.- A consignment from Perendials, and other Azaleas, Pa mas, Dracmas. de, Hanles Perenmials, and other plants and bulbs; Eagligh-grown ines
400 standard, half-utandard, and Dwarf Roses, 50 lotu of Greenhouse Eerns, Tuber mese, Narcissus, \&c.
THURSDAY NEXT, November 7. - 300 Azalea moll \(\mathrm{s}, 100 \mathrm{~A}\) indica. 100 Cawellias, 30 Laurestinus, and 80 Rhododendroot from Belgium; 50 lots of Specimen Exhibition Pjants ia grad condition, inciuding Palms, Oycas, Crotons and Ferns, Narcie sus; 400 standar 1 , half-standard and Dwarf Roses, hardy plant and bulbs, \&c.

On view morning of Sale, and Catalogues had.

\section*{Fiday next.}

1000 SOPHRONITIS GRANDIFLORA,
500 ONCIDIUM VARICOSUM ROGERSII, and ODONTOGLOSSUM CRISPUM (Pacho type),

\section*{from Messrs. Fred. Horsman \& Co.}

Also 100 lots special CYPRIPEDIUMS, frcm the collection of R. I. Measures, Esq., 100 lote of ODONTOGLOSSUY GRANDE, 100 lots of IMPORTED and 200 lots of ETAB. LISHED ORCHIDS.
MESSRS. PROTHEROE AND MORRIS will SRLL the above by AUCTION at their Central Sule Rooms, 67 and 68 , Cheapside, London, E.C., on FRLDAY N.

On view morning of Sale, and Catalogues had.
Friday Next.
By order of W. L. Lewis and Co., Southgate.

\section*{LWLIA ELEGANS,}

Specially selected by cur collector from a native Fazenderoh Verandas.
CATTLEYA SCHOFIELDIANA (true), in fine condition.
CATTLEYA VELUTINA
CATTLEYA SCHILLERIANA, All in the best possible health and condition

MESSRS. PROTHEROE and MORRIS will include the above in their OROHID SALE ou FRIDAY, ber 8 , at hall-past \(1 / 1 / o^{\prime}\) Clock.
On षiew morning of Sale, and Catalogues had.

\section*{SALES By AUCTION. DUTCH BULBS—DUTCH BULBS.}
sales nearly every day, in Large and Small Lots, to sult all Buyers.

IIR. J. C. STEVENS will SELL by AUCGarden, nearly every day, at half-paet \(120^{\circ}\) oloclot, firbt-class cons gnments of Choice HYACINTHS. TULIPS, CROCUSES, Narcissus, and other BULBS arriving daily from
known farmg in Holland, in the finet posible condition. known farms in Holland, in the finest possible condition
On view morning of Sale, and Catalogues had.

\section*{WEDNESDAY NEXT.}

PLANTS, BULBS, LILIUMS.
A Consignment of 500 Azalea indica ana mollis woll LATANIA BORBONICA.CORYPHAS AOd Other PALMY: and various small DECORATIV R LaNIS, just roceived
An Importation from Holland, including a Choice ANsU-TMENI of small, Well-growa small surplus gtock of well-grown English 1.000 Chotce named Standards, Half - Standards, DW AnF CLIMBING, and other ROsE\&, from a successful German grower, comprising
7600 Best Berlin Lily of the Valley Crowns, just 6000 Spiræas of sorts, Dielytra spectablle, Liliums, 200 Dwarf Roses from an English Nursery. Several thousand Early Forcing BULEBS from France. LILIUM HARRISI. L. CANDIDIMM. L UMBELLITUM, and \begin{tabular}{l} 
others; FRREIIA REFRACTA ALBA ANEMONES, \&C. \\
\hline COLLECTION of EXTRA FINE HYACINTHS.
\end{tabular} A SekCIAL COLLECTH Oest gorts, apecially melected for Olsen and Pot Gulture Great variaty of TULIPS, CROCUSEs, rare Narcissus, swowdrops, \&c

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paet 120'Clock preciely.
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MESSRA. WHITE and SONS will SELL Vhe Tr OTRustees under a Deed of Assignment, on MONDAY, TUESDAY and WEDNESDAY, Nov. 4, 5, and 1895 at halfsast 11 o'Clock on egch day, the whole of the NURSERI
STOCK: Specimen Variegated Hollies, Piceas. Golden and SFOCK: Specimen Variegated Hollies, Piceas, Golden and
Irish Yews, Erecta Viridis. Retinosporas, Thujas and Curressur, Auricarias, Junipers, Lsburnums, Silver Elms, Scarlet ChesMaples, \&c., Pair of Large specimen Magnolia Soulangeana, 2500 Standard, Dwarf and Bush Roses, 500 Rhodotendrons, 400 Aucubas, 100 ) selected Border Shrubs. 100 Goldea Elders, 1400 Thujas. 1400 Green and Variegated Hollies. Retinosporas, Arbor-Vitæ. Cedar Deodara, Berberis of Sorts. Cryutomerin elegans. 610 Pınus Austriace, Cembra and Excelss ; 630 Golden and Common Yewe Abies Douglaci. Spruce and Scotch Firs, Piceas of Sorts, 4000 Larch, 5000 Quick, 4500 Laurels and Portugal Laurels. 40co Handsworth and Variegated Box, 4000 Privet Ovalifolium ; 850 Dwarf trained Standard and Pyramid APPLEs, PEARS, PLUMS, and CHERRIES, 250 Joung Mulberries, , , uinces and Medlare, Cob Nuts. Filberts; Raspbarries. Goosebrries, Red, White and Black Currants; also a large quantity of Drumhead and Garden Cabbage
Plants, Strawberry, Asparagus, Seakale and Bhubarb Plants and Celery. Broomy, \({ }^{\text {Irginian }}\) Creepers, Ampelopis Veitchii, and Celery, Broomy, Virginian Creepers, Ampenopais Vioten, Carnations. The Forest Trees, Limes, Abele, Canadian. Balaam, and Italian Poplars, Silver, Birch, Maple, Oal, Ash. Sce, Acc. 5 Span Hoot Hot and Cold Houses, \({ }^{2}\) Lean-to Greenhouser,
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L9pageria alba, Passiflora, and a pair of fine Palms.
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THE
(Gardencre' Chronidle.

\author{
SATURDAY, NOVEMBER 2, 189\%.
}

\section*{T U R V E Y}

PROBABLY only a very few readers of the Gardeners' Chronicle have beard of the delightful village of Turrey. It is one mile from a station on the Midland line between the towns of Bedford and Northampton. Mr intention in to say something of the gardens of Turvey House, but I venture to preface my remarks by a brief sketoh of the village, one of the most pioturesque in England; and yet the greater part of it is not half a century old. The road to the village, about 1 mile and a quarter, is chequered with the shadows of noble trees. On the left, separated from the road by a low stone wall, atretches a beautifally undulating park, studded with Elms, Chestnuts, Walnuts, Uakn, and olumps of Hawthorns. Footpaths cross the park in several directions, and the further side is bounded by belts of woodland. The visitor cannot fall to notice that almost every tree is surrounded by coils of Ivy, some of enormous thicknens, and singularly varied aspeots, which doubtless are doing great iojury to the trees. But the grand old man who lived all his life, with the exception of a few days, at the fine old house known as Tarvey Abbey, the residence of Major Higgins, delighted to see the rugged boles of his trees wreathed about in suoh fantastio fashion with Ivy; and, perhops, the protection thus afforded to birde, both in shelter and food, acoount for the number and variety to be seen and heard in the neighbourhood.

Little of the garden proper can be seen from the high road or the park, but from either, one may get charming views of the old house and its surroundings. Tbere is not much on the north front, except the fine porch and mullioned windows, the mooth and per-feotly-kept lawn and carriage drive; and, level with the top of the balustraded stone wall, a level green plateau of trimmed Box. Box seems to have been a favourite of the old squire's. To brealr the monotony of a range of stabling, a dozen green, olosely-trimmed cones stand sentinel. Perhaps, of all shrubs, the Box lends itself most readily to the topiary art, presenting all the year round a more cheorfal greenery than Laurel or Yew. On the opposite side is a terrace of cottages, standing well back from the road, ech with its cheerfol gardenplot. Here, too, on ench side of a path leading to the oottagen, the great oones of grean Box stand in martial array.

Now, taking a turning to the left, down a narrow lane, we And ourselves in the park itwelf. A noticeboard confronte ut, saying that there is no road, bat that the atrager, nevertheless, may pan; and above this typical yeoman, who is tenent of the park, bide ua "Beware of the bull." It it quite excuable, sening that it is an imaginary bull, and that his sometime scanty grase crope have affered from the wilfol mitchief of visitort of the " Arry
tribe-m "visitors" only, for, \(\boldsymbol{n o}\) far as I am aware, Turvey having no "'Arries."

The views from the park afford a charming bit of Erglish acenery. The fine old gabled houee, with it great windown, porches, and balustraded walls, with here and there a flower-laden urn, atands back some 200 to 300 yards, and is seen through three vistas of tall treen, engirdled with clipped Yew hedges. The extensive lawn, mooth as velvet, is traversed by broad gravel paths; while to right and left these lead beneath the treen in delightfully cool, shady walk. Here is a capital lesson for the landscape gardener, showing how mach may be done by the jadicious planting of flowering shrabs and trees on grans. There is acarcely a glimpse of colour except some vave of Pelargoniums near the windowr, and Rose: and other climbers on the walli. Among the latter we noticed the charming white Clematis montana, one of the most effective of climbers.

The outlook from the south front has a view of the park with its noble trees, its grove of Chestnuts, Elmi, and Walnuta. An architect of excellent taste was the old equire. The sea of greenery in which his old house stands, however, might be greatly beautified and cheered by the addition of the bright colours and fragrance of flowers. There is much to admire as we pasa alcng the village street. Here there is a house covered entirely with Ampelopsis, Roses, and Vines, while every window-sill is gay with bright coloars, and the lawn in front with bed-ding-plants. The visitor will perhaps notice the namber of Walnut trees, and may imagine the scramble of the youngaters, just let loone from school, when the ripe frait patters on the ground, as the equinoctial gales whake the branches. One then fs anes the handsome chool buildings and library. What a relief it would be to see them encircled with flower-beds, and embellished with climbing Roner, Jaminea, Clematis, or eren the hamble Iry. In the courtyard of Turvey House there is a grand old Exmouth Magnolia-why not have one where the villagers could aee it? I knew a school-houme, year: ago, at Harrow, thas encircled and ombellished; the boys, under charge of their teacher, mowed the grasm, trimmed the edgen, weeded the bed and watered the plante. Many a Londoner naused perforce at that garden-gate, to gladden the heart and feast the eye on the flower.
But at last we arrive at the grand old church, with it Yew and rugged Elma. One must not atay, however, to describe its ancient tombs, with thoir recumbent barons, knight and ladies. Village commanities, however, might follow the example set here, of planting Rowes, and putting a border of flowering shrubs round the quiet God'a acre.

A wicket-gate lead us at once into the grounds of Turvey House, a atately intucture of the Grecian order, with terrace garden, rich with colour, In front is a well-wooded park tretching down to the winding Ouse-Cooper'slyrical Oare. The poet, it may beremembered, lived at Olney, about four miles diatant; the house is atanding in which he apent some of his happient years. Turvey House has two eeparate walled gardens, one near the stables, devoted to early vegetables and fruit; the larger one adjoining the house, hat a range of glashoumess, consisting of conwervatory, vinery, and greenhouse. A separate encionre contain the forcing-honmes, pits, and frames. The principal walk is approached from the house by handsome iron gater. On either side of it is a clipped Yew hedge. Between tbis and the wide mooth gravel pathe there existed, antil last eason, a border of flowert, but the roots of the Yew so impoverished the soil that nothing would thrive, and it was laid down in turf. The good old-fashioned cuatom prevails here of aurrounding the bed of vegetablew with border: of Ronen and herbaceous flowers; and smong the latter are large beds of the white Pink, Mra. Sinkin. After the Rones, however, of which there is a capital collection, are the reedling Briars. A mont uneful and graceful plant for cutting is the Aquilegia; Mr. Pullen, the able and experienced head-gardener, has wome capital hybrids from glandulona, chryantha, cansdentia, cobrulea, and others. With s few fronds of Adiantum or some
grassea, Aquilegia makes a light and graceful embellishment to the table, The single-flowered Pyrethram roseum is another favourite; it is of delightful shades of colour. It is succeeded by Cactus and other Dahlian, and then by Astera and Chrysanthemuma. In a mized border in front of the glass atructuren the brightest bits of colour at present come from the Shirley and Iceland Poppies. There is one kind of the latter, as is well known, of a brilliant orange-red, peculiar, so far as I remember, to this flower only.

Mout herbaceoun plants, owing to the long drcught, are stunted and backward in their growth, Dalphiniams and Phloxes eapecially so. Tbe flower garden, and more especially the herbaceous section, sufferm from lack of blue colour; there is nothing, it eeems, of permanence to take the place of the Delphinium and Salvia patens. It is in summer, moreover, that blues are wanting. Just at the time when the cooler tints of the blues are most acceptable, we are sweltered with ssarlets
round its atem some charming alpinen grow, and among them Anemone apennina. Spread ar a delicate filagree of silver and pale green, the feathery variegated Acer Negando added an indercribsbla cbarm. Now it is Guelder Roser and Syringas, with here and there a Clematis or Honeynuckle. Throagh this wilderness of wwet. one may refresh the eys with glimpses of green turf and stately treen, and the silvery ribbon of the Ouse. T. W, \(H_{0}\),

\section*{New or Noteworthy Plants.}

\section*{A HYBRID MUSA.}

A hybrid Musa has flowered thin yeir as Row, which has been raised by Mr, Watson by croning M, Mannii and M. rosacea. As it preaents a deciddedy diatinct type, he proposes to call it Man kemencis. This is, so far an I know, the first inntincee in which the hybrid origin of any apecien of the geaus ha been properly certified, 0 that it is important the


Fig. 89.-mbuit and stone of jubea spectabilie.
A, the fruit ; B, eection of the same; \(\mathbf{C}\), the stone; \(\mathbf{D}\), section of the same. (See p. 518.)
and jellow! Why not utilise the Clematis of the Jackmani type? What a relief it is to rest the eye on grand maseen of Jackmani when the garden is aglow with the fiery tones of colour! By the way, Mr. Pullen haw a Lobelie, of a richer colour, and more telling than the laat-montioned Clematio. It is of deep blue, deep an Salvia patens, and with a clear large white eye. It is a bright and effective edging-plant, and a profuse bloomer. Dame Nature in sparing of her ultramarine. She puts one vivid spot in the throat of the Gentian. Bat aye! I had forgotten that bell of the Gloxinia! which in some inexplicable way has acquired many delightiul hues. Then, again, one can think her nowise niggardly while gazing on those atretches of Hyacinth in the apring woodlands, or the long fringes of Myosotis by the river, or banks of Speedwell on wayside banks.

At a farlong's distance from the wicket by the churchyard, as was anid, one enters this beautiful demene, and then through a ahrubbery by a wind ing walk, finds one way to the garden. But in this thrubbery-it may not be more than a dozen yards in width in mome parta-here and there are little gresn bays in which is a Robinie or a Fir, and
it should be placed on record. It two parents wo nearly allied, both belonging to my section Rhode chlamys, in which the flowers are few in number, the bracts bright coloured, usually red, and the fruity not edible. The following dencription is drum up from two plants that flowered at Ketr, one il June, and the other in October, 1895. Stem eglir drical, 3 feet long, above 1 inch in diameter. Lavel fine, crenated towards the apex of the stem; petiole deeply channeled, 6 to 15 inches long; blade oblong obtuse, 2 to \(2 \frac{1}{2}\) feet long, 6 to 10 inches broad, thin in texture, bright green above, paler green benestith cuneate or rather rounded at the unequal bam Spike ahort, erect, shortly peduncled; bracts oblones 4 to 6 inches loag, criman, with a tinge of man Female flowers in four clueters of three flowers emb ovary finally 1 inch long. Malo flowern also in threet Calyx yellowish, \(1 \frac{1}{2}\) inch long, truncate, and obscurely toothed at the tip. Petal oblong, obture, white, nearly as long as the calyx. Stament five, pro truding beyond the reflexed tip of the calyx; anthers linear, 支 an inch long. A drawing of is hat boo made by Miss Smith for the Kew collection. J. G. Baker, Horbarium, Kew.



\section*{JUBEA SPECTABILIS.}

Tae Coquito Nat or Wine Palm of Chili is one of the mont intereating of sub-tropical Palm. It has a very atout stem which attain a height of from 40 to 60 ft , and beare a large spreading bead of pinnate leaves. The fruit is borse in pendent racomes which look like gigantic bunches of very large Graper. Each fruit (fig. 89, p. 516) contains a single aeed which is nearly round, has a hard brown bony ahell, and the albumen is white, barder than in the Cocoanut and weet to the taste. The stems contain a large quantity of accharine jaice, which, when boiled, become a sort of treacle, and is much esteemed as an article of food, known as Miel de Palma-Palm-honey. A full-sized trunk vields about minety gallons of this sap, to obtain which the trunk are felled, the leaves lopped off, and the juice is canght as it rung from the upper end.

There is some danger that this Palm will soon be extirpated from Chili, through the wholeale felling of the tranks for the Palm-honey. When Darwin vinited Chili in \(18 \dot{2}\), an recorded in his Voyaye of the Beagle, it was very abundant in the country round Valparaiso, he having counted aeveral handred thousand trees on one estate alone. The late Mr. John Ball was there in 1882 , and although he devote a considerable portion of his book (Notes of a Naturalist in South America) to the flors of Chili, he does not even mention the Jabæa. Miss North visited Chili in 1884, and painted a picture of the Jubæa, which is in the Kew collection. "In a place called Salto, one of the mont attractive cosst subarbs of Valparaino, there it a valley fall of the native Palm, Jubsea spectabilin, which uned to cover the country forty years ago, but now acarcely a hundred treen yemain. They are mis-shapen thinge, but seem quite in character with the rocky valley they grow nin" (Recollections of a Happy Life).

According to Siemann, the Jubæs is cultivated in Colombia and other parts of South America. The seedn are sometimes imported into this country, and are known commercially as Monkey's Cocosnut. They are eaten by boym, but I know of no other use to which they are put in this country.

There is a large healthy specimen of this Palm in the temperate-house at Kew. It has a trank \(8 \frac{1}{2}\) feet in circumference at the base, and 7 feet at a diatance of 5 feet from the ground. It beara a grand head of feather-like leaves, each 17 feet long and \(4 \frac{1}{2}\) feet wide, and certainly is not a mis-shapen thing, as dencribed by Mien North. The accompanying figure reprenents a epecimen of the Jubms in the King of Portugal' garden at Lisbon, which was published in the Gardeners' Chronicle in 1882 [and which we now reprodace (fig. 90, p. 517). ED.]. At that time the trunk was 132 feet in circumference. In 1886, thi identical specimen flowered and ripened fraits. It -way then thirty-five years old, and had a trunk over 16 feet high, and 14 feet in circumference at the base. The flowers were produced in January, and the fruit ripened the following August. I believe this is the only recorded instance of this Palm Aowering and fruiting in Europe.

I have seen it thriving in the open air in gardens on the Riviera, a specimen in Mon. Naadin's garden at Antiben having a trank nearly as large as that at Kew, but the leaven were nuch ahorter and lem handsome. [Thir tree, as M. Naudin kindly informed us, when he sent the fruit figured, is 16 feet high, the girth of the trank as a jard high is more than 12 feet, and the age of the tree is thirty-six jears. Ed.j \(I\) believe there is a plant out of doors in the garden of Mr. Smith-Barry at Fota, near Cork, which require only slight protection in winter. A plant was tried in the Bsmboo Garden at Kew two years ago, but it nuccumbed to the firnt severe frost.

\section*{NOTES FROM CAMBRIDGE} BUTANIC GARDENS.
Shoneania montivibuxsis.-There wat a fine group of this plant at one end of the Nymphase-hoase, in Which several of the latter were blooming freely in October. Taese Arrow-head deserve more general cultivation, and this Montevidean apeciea enpecially
would furnish tome valuable material for cutting at this ceason of the year, for though most of the Arrowhead flower in the summer, this fine species was in flower in October. Again, though they love the water and are most at home in a marsh, they will thrive well in loamy soil in pots if freely sapplied with water. The Arrow-heade are almost equally accommodating in regard to temperature. We have averal North American species, and at least one native species, S. agittifolia; and this fine species, S. montevidennis, all of which thrive almost as well in the greenhouse as the stove. Though I have it covered with its atriking white panicles of bloom throughout the winter, the plants will require, as they have at Cambridge, the stimulus of the stove. When water-plants and emi-aquatics get more in demand in our gardens, as well as in vases and glasses in our homes, more Arrow-heads will be grown, alike for their foliage and flower. Mr. Lynch deserves hearty thanks for his atrong and persistent lead in this direction.

\section*{Aristolachia gigas Sturtevanti.}

I do not remember to heve seen thi particalar variety of the giant Dutchman's Pipe before. The magnificent flower in fall bloom at the time of my vinit mast have been 15 inches long and 9 inches broad, with a drooping tail about 2 feet long in addition. Such flowers must be seen to be appreciated, for they are 10 extraordinary as to pass the bounda of a popular description. They aggest, on first aight, an enormous Stapelia or a star-fieh mapended by a stem, and embellished by a tail alike so mall as to be out of all proportion to the apparently masaive solidity, unique colouring and apotting, and extraordinary forms of the flowers. This fine plant seems just at home on a rafter in one of the fine new plantatove recently erected here-one of the handsome groups of glase so admirably linked together by the magnificent corridor into which the whole of the houves open. The plant is blooming with great profusion, and is in the most robust health, though, Mr. Lynch mays, many of the bloom drop off during different stages of their development, a reanlt aurely not to be wondered at as we reflect how much raw material and vital force mat be expended in the formation and finishing of one of these carious blomboms. I have seen some fine amplen of A. gigas and other apecies in aeveral botanic gardens, but never one of auch gigantic dimenaions before; and lovers of the curions in horticulture could hardly do better than eecare and grow this splendid variety. It is grown and bloomed at Cambridge in the highest perfection on the lower side of a by-nomeans long rafter; and though it is looked upon as a summer bloomer, the plant was thickly studded with bads and bloome in all etages of development in the middle of last month. D. T.F.

\section*{HARDY FRUITS AT SUNDORNE CASTLE GARDENS.}

Havisa an opportunity early in last month of calling upon the head-gardener, Mr. Phillipt, I noticed in walking round the garden eme aplendid fruits of Apples. The following varieties were exceptionally good:-Ribstone Pippin, the trees are bearing good cropa of fine clean fruita, good wizo, and the trees comparatively free from canker; a disease that has prevented this variety from being much planted of late years. The fruit of Cox' Orange Pippin are of mediam size, but clean. To get aiza in thin variety the roots of the tree mut be fed with manure at the final swelling period, about the first week in August, with water applied weekly for a time, and only one fruit allowed to swell on each bunch of blossom or frait apur ; the variety would pay well to be highly cultivated, at it is one of the beatflavoured denert Applen. Blenheim Orange Pippin, grown upon a wall tree, was very fine and of good colour. King of the Pippins, Sturmer Pippin, Lord Saffisld, Cellini Pippin, and Stirling Castle, were good. Golden Noble and Lord Derby also good; so was Warner's King, or as there named D. T. Fish. Thene treen, an well an a few othern, were bearing
excellent crops of fruit. The trees are bush-trained, a form so useful for gardens, as they do not thade other crops mach when kept praned annually an there. These trees are top-dressed annaslly with farmyard manure, and otherwise well managed, The bush Pear trees were not atiafactory, and I advised heading them over for grafting next apring, and grafting the following varietien upon them, namely, Doyenné du Comice (the best-flavoured Pear grown), Marie Benoist, Soavenir da Congrès, Beurré Hardy, Magnate, Olivier des Serrea, Daron. dean, Triumphe de Vienne, Clapp's Favourite, Fon. dante d'Antomne, Doyenné d'Alençon. Thew F arieties would, undoubtedly, atrengthen any coilec. tion of Pears, ripening between the month of September and March, and they are found to ancceed as bashes in the open. The following varieties were found to be very eatiafactory, growing againat nouth and west walls, and horizontally trained:-Jargonelle (the crop had been gathered), Williami' Bon Chrétien, Loouise Bonne of Jersey, Marie Lonive (both of these had plendid fruits apon them, clens and handsome), Pitmaston Dachess (the largest Peari in the garden, but only a few fruits), Beurré Supería, Bearré Diel, Winter Nelis (splendıd frait and crop), Bearre Rance and Glou Morceara were good in nizs and crop. The soil in these gardens saems to be well suited for hardy frait culture. The Apricots, Peachen, and Nectarines apon the south walls were in excellent health, and good froit was and had been grown apon them with one exception-Apricots, the crop of which had been poor. Many uaeful young trees had been planted of late jears between the old ones; the latter taken away, as the space was required by the young ones. These promised well for the futare. The following varietien will be found aitable for open walls, south and south-west appects, in the order of ripening in this district:-Peaches: Alerandra, Hale's Early, Gronse Mignonne, Noblesse, and Walburton Admirable. Nectarines: Early Riven, Lord Napier, Pitmaston Orange, Pine-apple, and Elrage. Apricots: Breda, Hemskirk, and Moor Park.

The ordinary varietien of Plams I found doing well, as also Damsons. I learnt that no protection was given to the wall trees last apring against frouts, thereby teatifying that wall fruit, however choice, may be grown on open wall when good cultivation is adopted, as here. I have proved for many years past that front protection to wall-froit treet when in blossom is often a hindrance rather than a help to fraitfalness. The best help I found was in using a board at the top of the wall, 11 inches wide, in the apring months, removing it early is Jane. In this way I wa enabled to get cropn of choice fruit annually for fifteen years in succestion. Many people in Shropahire think that the connty is not auited to the growth of choice fruit againat open walle; auch is, in my opinion, a fallecy. To be succensful, however, there is need for care in the selection of varieties, planting the tret properly, in the autumn, care in pruning in the apring, and of keeping the summer ahoots free from insects - the mont important point of all in the cultivation, early thinning of the fruits when joung and before the stoning period, regulating the number of fruits to each tree according to 280 and wize. Given attention to these matters, choico frait can be grown as well in Shrophire as elsowhere, as proved thin year in a few districts. Robert Smith, F. R. H. S. \(_{0}\), in "Shrewsbury Chronicle"

\section*{Orchid Notes and Gleanimas.}

\section*{ORCHIDS AT ROSSLIYN, STAMFORD HHLL}

That few plante caltivated in the neighbourhood of London thrive so natinfactorily as Orchids when properly tended is a well-known fact, and sn exceslent example in mapport of it in always to Samford in the collection of H. T. Pitt, Esq, at Orchia Hill. Began a few years ago with a fow extended in one of the houset, it has gradually exticises
until at the prenent time, several important rig
of house are entirely devoied to these plants, and admirably do they thrive ander the care of Mr. Aldoas, and the no leas cerefal apervision of Mr . Pitt himself. At the present time, the two most showy plant contribating the largest number of handsome flowern here an in most other collections, are the varieties of Dendrobiam Phalxnopais Schroderianam and of Cattleye labiata, which may be regarded as two of the most useful planta ever introduced to garden. Both are free-growing and profuse-flowering, and seem to adapt themselven to almot any quarters. The D. Phalænopsis have been flowering here for months, but atill they are embellished with gracefal aprays of bloom; and with them in flower are D. P. Statterimnum, D. Hildebrandii, and other apecies.
In the adjoining honse, mpended over a bed of fraiting Pines, and taking full sanshine at all neanons, is a fae batch of varietien of Lalia anceps, so thickly set with flower-piken that more could acarcely be got from plant of their aize. Taking one 12 -inch baket at an example, we counted on it twenty-seven Hower-spiket, which on maturing their flowers will give a specimen of extraordinary

\section*{Cattleta lablata.}

Amongat the mumerous kinde of Orchids which have been 10 plentifally imported daring the part fow years, I am of opiaion that, taking all points into convideration, the above-msmed Cattleya is decidedly the most meeful. It natural period of flowering daring the month of October and November, when choice flowering-plante are not at all plentiful, is a very atrong point in it favour. It is also what may be termed a general gardener' plant, seeing that anyone with atove mny, with ordinary caltare, have it in perfection. In thit renpect it may be compared to Dendrobium nobile. I know of plante which have been in the posesaion of their owner nearly forty years, grown ander the condition named above. Une more intereating point in it favorr il the wonderful variety of form there are in, eay, a dozen plants. Inew ten distinct varieties in that number of plante the other day; and they had been "aut parchased in bad at anflowered plante from the nureery. The price, too, at which good plants can be purchased is quite moderate. For the decoration of the dincer. table or other indoor parpone they are iovaluable ne cat-bloome at
placen. This year the crop is a plentiful ove, iut pricee are not so high ase one might wish; atill, good fruit alway fond a ready sale, and fetchet fair prices. In almont every direction mere encumberern of the ground are to be met with, the produce of which is in many inatancen of a rubbiahy deveription, and yet these treen are allowed to remain from year to year. All this might be altered by plantiag healthy, soand joung trees in new situations, which. if carefally plauted and consiat of aitable varieties, soon begin to come into bearing, and the fruit is of good aize, colour, and general quality leaving nothing to be denired. If we are to keep pace with the timen, which mean supplying our own country people with good wound fruit, and thereby rendering the import of fruit mucb leas profitable to the foreigner and colonial, more trees mat be plated, and trees in pood bearing kept in frst-rate fraiting condition by anmal top-dressinge and carefal pruning. Any kind of eill that is capable of producing other good crope, anch an corn and regetables, is aitable for \(\mathbf{A}\) pple cultare. The easential thing to be aimed at in good drainage and a fair depth of soil, alco a suitable site.

Trenching land for newly-planted orcharde entaila a great deal of laborious work, and in not very necennary-at least, not in all parts; but there should be no lack of care in the due preparation of each tree atation. On large plote of pastare lend, if the trees are to stand at not lese than 40 feet apart, bole ahould be dug oat and prepared fally 7 or 8 feet in diameter, and well broken ap to a depth of ن̈t feet, and for several yeara after planting the grace ahould not be allowed to grow on the ail over the roote, and e mulching of well-rotted manare applied, which will be found of great benefit to the trees in promoting a free growth.

It in very seldom, after trees have been well planted on a tomewhat firm eoil, and where apace co grow in practically anlimited, that root-pruning in required, as with a fair proportion of branch extension, and a moderate use of the knife, the trees quickly come into good bearing. It is of far the batter method to let the crown become well developed before allowiag the trees to bear fruit in any quantity; for if once they are rondered atunted in growth through heen early cropping, it is many yeare before the trees recover their former healthigeas and vigour.
When in firct-rate condition, young Apple trees planted in lines at a good distance apart, and allowed to make a fair proportion of wood, produce cropa which far outweigh both in si \(\angle \theta\), quality, and bulk, that produced by trees crowded together. Probably the bent course to adopt, if fresh ground cannot be obtained, and the best muat be made of the old Apple-sick soll, in to mark out the places for each tree to be planted, aroiding, if posnible, spots on which trees have stood, digging out the old soil to a depth of frem 2 to 3 feet, and breaking up the maboil. The hole abould not be lese than 8 feet in diameter, and it is good practice to leave them open for several week. This will allow the frost to palverise the ntiffer ubsoil gually found in old orchardi. Advantage should be taken of frosty weather to get as much freah acil and road-paringe carted to the spots as may be required, planting the trees at any zild time Juring Febrary and March. Good varieties are numerous enough, and the goodness of Apples seems now to be more looked to by connamere than was the case formerly; but, anfortanusely, the yield of come favourite varfectien it not very abandaut. A good early kitchen Apple is fousd in Lord Darby; the tree growe strong, and it is one of the beet for general early cropping, the frait of capital nize. In my locality it is conaidarably better than Lord Suffield. Yorkahire Beauty is another variety that rarely failu to bear; in fact, we have no kind so tratworthy in that respect. Waltham Abbey Seedling is a largo clear yellow Apple, and very unefal an a kitchen cooking frait, and the tree is hardy, and not liable to canker. Stone's, New Hawthornden, Bramley's Seedling, Annie Elizabeth, all frait well. Tower of Glamis, Ecklinville Seedling, Golden Spire, Golden Noble,

Daux Ans, and Lady Henniker are all good market fruite; also Wellington, Gooneberry-Apple (not Pippin, the two being quite diatinct), and Northern Greening are excellent for late une. There are many other good calinary varieties, but I find those mentioned are very aitable hereaboute. Demert varieties consist of Cox's Orange, Kerry, Ribaton 'Pippins, and King of the Pippins; this year the latter hat grown out very fine and clear-all points considered, this Apple is atill one of the best. Blenheim, either for dessert or cooking, is probably the beat all-round Apple grown, and fall-nized trees fruit abundantily; this laat alway sells readily at good prices. Worcester Pearmain, although not of tirnt-rite quality, puts on a high colour, and comes into use at a time when Apples of the best quality are anfit. The tree bears well, and it is a variety well worth growing.
Claygate' Pearmain is of fine quality; Cornish Gilliflower, although not a pretty-nhaped fruit and fruiter, is certainly, in my opinion, one of the first quelity; \$turmer Pippin is one of the bent late destert varieties if the fruits are allowed to hang on the trees till very late in the year; Yellow Ingestre in amall and usefal, and it is donbtful if there is a raore profitable Apple grown from a market point of view. Mabbott's Pearmain, Brownlee'a Rasset, and Chiville Rouge Précoee are all good.

\section*{Prinigg Stakdard Trebs.}

This'is usually done after the leaves are down, but it may' asfely be performed at any time after the fruite are igathered, as by removing some of the old limbe early, and before the leaves fall, decaying branches are better neen; keeping the tops moderately thin is the mont important item, but if the heade are lept too epen and the branches far apart, they are more apt to way during high winds when heavily cropped, and the froita get damaged-so that nome judg--ment in required, and the habit of the variety atudied in branch thiming. The finest lot of Blenhsim Orange Pippins I ever naw were growing in a large fruit'garden thin year, where it wan evident that the praningisaw is not spared, the long limbs being comphetely loaded with fraits from top to bottom, and fortanately no rough high winds were experienced this season to bring down the crop and braise those that remained on the trees. H. Markham, Mereworth Caste, Maidstone.

\section*{The Bulb Garden.}

\section*{IRIS K KMPFERI.}

Tiel rarity of these beautiful Japanese Iris in private gardens is scarcely to be accounted for, unlens it be thought that a pond or atream or lake are absolutely needed for their acceafal cultivation. It is almoat impossible to realise the beanty of a fine group of the hardy flowers, and were they grown in proportion to their merit, they woald certainly be aeen in abundance in all private gardens. Even in auch garden in which the plants may be found, it is rarely that a fall measure of succens is obtained. That they sre moisture-loving plante is not questioned, but this does not mean that they will enceeed -in or near to magnant water. I have, indeed, grown thend better in richly-manured ground in the neigh-- bourhood of Hampton than others have at the water's edge. Moisture is necessary, and so is an open vegetable soil, or a soil largely consiating of leas-ail and peat, with a good quantity of decared manare. Any amatear who feels so inclined may grow thene delightful sabject in the most satirfactory manner by adopting the following simple méans:-in gardens with a heavy retentive aoil, a apecial bed should be made by digging out the soil to the depth of 2 feet, and in the form of an oral, oblong, or other desirable figare, and replacing it with rough peat, half-decayed leaf-mould, and very short manure, the firtit two in equal ratio, and the manure about one-fourth, to which may be added mbout one-fourth of the itaple, making at the least a bed \(1 \frac{1}{2}\) or 2 feet deep. It should be well mixed togother, and loft in
a comparatively loose atate. In finishing off the bed, allow the aurface to be 3 or 4 incher lower than the surrounding level of the soil, so that it can be deluged with water in dry weather in the growing season. In gardens where the soil is strong, and the subsoil is gravelly or andy, a similar excavation will be needed; but in this cane I would advise lining the bottom with clayey soil, so an to retain the moistare. What these delight in is an unlimited anpply of vegetable mould below, and plenty of moisture afforded from April to September. What they dinlike is atagnant moistare throughout the winter, which mast be avoided if saccess is to be insured; and they are afer, and stand better chances of flowering. in any ordinary damp, shady border; bat where abandance of vegetable soil can be afforded the roots, a marked difference will soon be observed. If only a dozen plants be obtained, they well repay proper care. This Iris is by no means fartidions as to the reason to plant; but preference ahould be given to the autumn, as this enables them to make fresh roots by the time growth commences in the spring. \(J\).

\section*{The Week's Work.}

\section*{FRUITS UNDER GLASS.}

By Richard Parker, Gardener, Goodwood. Chichester.
PREPARING FOR FORCING.-The houses or pits in which the earliest forcing will be done hould now be got in readiness by cleaning the wood-work and glase, and lime-washing the walls. If a mall quantity of petroleam be used in the lime-wash, it will prove a good kind of insecticide. When the work of house-cleaning is thoroughly done at thin season, much labour in cleaning the plants later is avoided. A large heap of atable-litter and Oak or Beech leave should be prepared in some theltered corner where the wind will not reach it, and be well mixed and turned over several timer, so as to fit it for bringing into the pineries, \&c., at may be required. It forms an admirable mild hotbed for hastening the flowering of plants, and adding warmeth to the house. A compost consisting of fresh tarfy loan, crashed bones, wood-ashem, and old mortarrubble or planter, should also be prepared, and placed ander cover, in readiness for top-drenaing рагровен.

8TRAWBERRIES IN POT8, ETC.-Sharp fronts having net in, the plants in pote ahould forthwith be placed in winter quarter as previously advised. Ae bad drainage is more injurioas to the Strawberry than front, no water ahould be allowed to collect about the pots. I do not advocate placing the plants on their aiden ander walle, \&cc., as thesoil is apt to become too dry, causing the roots and crown to lowe their plumpness. Frames and pits form a better shelter if the pote can be plunged closelytagetber ap to their rims in beds of fine coal-asbes or tree leaves. The frames ahould have a southerly aspect by preference. Foliage which has become brown should beretained, as it forms a protection for the crowns. As was before atated, those plants which are to be forced early should be plunged in lesves, \&c., in pite, and the lights should be only placed on them during frosty weather. All kind of fruit trees in pots hould by this time be planged in beds of coal-ashes, or have their roote protected in some other manner from frost.

THE OTHER FRUIT- HOUBEs.- Continue to freely ventilate all the Peach-houses and vinerien, excepting those containing Grapes, care being, of course, taken to prevent the water in the heating-apparatue, from being frozan.

PINE-APPLE8,-Qaeen Piner, to ripen in May and onwards, should now have the amount of water afforded at the roots somewhat redaced, a slightly lower temperature maintained, as well as a drier atmosphere, and thas affurd the plants a two months' rest, which is eapecially desirable if the plante are to show fruit at a given time. The pinery may be carefully ventilated for a few hours daily during mild weather, when the inaide temperatare has risen to mare than \(68^{\circ}\). The night temperature hould not exceed \(65^{\circ}\), and the bottom-heat should be steady from \(70^{\circ}\). It is very denirable to cover Pine-stoves at night, especially in frosty weather, the retention of the denired degree of heat by this means boing preferable to the excennive use of the hotwater pipes. Thick blinds answer the purpone very
eatisfactorily, although Frigi Domo and mats are alvo of fus. In the fruiting-house, a brisk moint heat should be kept up, to encourage the swelling of the fruit, and no overbead syringing be performed daring the winter montha, but the sarface of the pluaging material moistened instead, by syringing it alighty between the planta aboat \(9 \Delta \mathrm{M}\). and 2 gm Very little ventilation should be afforded, unlens the an be very warm, as draught of cold air are injarious. A day temperature of \(70^{\circ}\) to \(75^{\circ}\) in this division, and one at night of about \(68^{\circ}\), should be maintained. The rooted Pine suckers should be afforded much the same kind of treatment an that recommended for the \(Q\) reen Pine plants antil the tarn of the jear, and by keeping the planging material well up to the rim of the pote, and keeping this in a fair!'y moist condition. less water will be required at the roota, If each department see that there are no drips from the roof, as water falling conatantly into the pots aourn the soil, and caunes the roots to decay. Ripe fruit ahould not be allowed to remain in the store, \(m\) it keepe much better in a dry room.

\section*{PLANT8 UNDER GLAB8.}

By W. H. Smitr, Gardener, West Dean Park, Chichutr.
TUBEROU8-ROOTED BEGONIAB.-There plath will, in most gardenm, be past their best, and whonld be gradually dried off, for which parpose the poss containing them may be placed beneath the greenhouse stage. When they are completelv died down, shake all of the old soil from them, and keep them in the winter in shallow boxes filled with cocos-nat fibte refuse, placed in a dry place, from which frost in excladed. All doable-flowered and unusaally fine aingle-flowered varieties should be in sume was designated, in case it should be desirable to propagate from them next spring. If cuttings of double-flowered varieties were atruck at the time advised in a previous calendar, the plants ahoald be kept actively growing for some time longer, in order to obtain a large a tuber as pomible. For this parpose a mild hotbed-frame, and the plants placedelow to the glasp, will suit them admirably. All flowern should be picked off these young plant as futs they appear on them.

ACHIMENE8.-The latent batch of the se fuberout rooted tove plants may be gradually dried off, and then placed beneath the greenhouse stage or in the potting-shed if it in fromt-proof. Those grown in basketia may be ahaken out and placed in boxes of dry peaty ooil or ailver and, and similarly tored. Achimenes should not be kept in too dry a place, a the tubera are then liable to ahrivel.

DEUTZIA GRACILIB.-PIants which have groml in pota all the summer may now be examined as to the drainage of the pota, and removed to cold frames, in readiness for being forced, and placed close together if frame accommodation be limitedo The plants will require little or no water until they are taken into the forcing-house. Taose planted out ahould be lifted and potted up, these latter being taken last into the forcing-house, as the pot-grow plants atand hard forcing better than they.

HINTS ON SEASONABLE OPERATIONE,-NO time hould now be lost in getting all plants whith have been atanding outside into the greenhoutef, conservatory, cold frames, or brick-pite, althong such species an Moutan (Tree) Pæonies, Hydrangea, Campanulas, Fuchsias, Richardias, Carnations, Ags. panthus, \&c., are able to atand a little front. The Hybrid Perpetasl Rones for forcing parposes, if no room be available in pita and framen, or the Rove honse, should be plunged in beds of cocosnute the or fif
rim. rime.

VIOLETS IN FRAMES should have regalar attaintion in airing, keeping free from weeds and rannerk, and in watering and protecting from frost. At istered place, on October 26, the thermometer regish mats \(10^{\circ}\) of frost, and the protection of the frames with the was very necesaary. Air should be admitted to the frames as soon as the rime is off the glas.

THis OACEID HOUSD8.
By W. H. W mixis, Orehid Grower, Burforl, Dorkiyg.
habenarlas.- The apecies, Habenaria militarit, H. rhodochila, H. Saaannæ, H. carnea, and ion their white variety nivosa, are well worthy of attention, sime flower- pikes prementing a gay appearance at aners in when there is a comparative absence of for that the Oschid-housen. Where convenience for the to culture existe, they are plants which denerv
be well represented. Now that their requirement are better understood than formerly, but little difficalty is experienced in the management of them. At the present time a large number are in bloom at Barford, and already the leaves of the earliet-flowering apecies are beginning to how diacoloration; water mat be therefore gradually withheld from them so as to induce the dying down of the stems and foliage. The stem should not be cut off when decaying, bat left to fall natarally away. It is not advisable to withhold water altogether when growth ceases, an over-drynest at the root causes the tubers to ahrivel, and it is doabtful if they ever regain their plump condition; and they invariably start weakly the following apring. The plants should be kept intact in their pots, and be carefully examined once a week. Those which are found to be dust-dry should be stood by themelven and afforded a good aprickling of water from a fine rose watering-can. Habenaria militaria, H. carnea, and H. c. nivosa, should be rested on a shelf near the glass in the warm-house alongaide the deciduous Calanthen ; while H. Sasancæ and H. rhodochila should occupy a mimilar position in the Cattleyahoune.

DENDROBIUM PHALAENOP8IS.-Many collectiode are now gay with fowers of this beautiful Dendrobe, showing as it does, a great range of colour in the different plante. The dark ricaly-coloured varieties appear to be the more common, although there are many lighter forms which are alway much admired. The white variety is very rare, If the atmoaphere about the plants be kept a trifle drier than usual, the bloom will remain freeh for a long time-a matter of importance where cat flowerm are much in request. As soon as the bloom is over, the plants should be placed in the cooler part of the East India-house, and kept rather dry at the root, water being afforded just as often as will prevent undue sbrivelling. Other species of Dendrobiums, viz, D. bigibbuw, D. superbiens, D. Goldei, sud D. Statterignam plants of which arenow in bloom, will require a aimilar kind of treatment when they are reating.

CATTLEYA8.-The best varieties of Cattleya eldorado are very desirable plants, and their fragrant llowera remain in beauty for a period of four or five weeks. At the present time these plants are freely making roots, and when the temperature of the Cattleya-house falls below \(60^{\circ}\), it will be advinable to remove them to the warmer East India division, and keep them there whilat the roots are active. They hould not be watered unleas actually dry, and then it should be thorough. To keep the potting matarials constantly moist certainly carsen the preado-bulbs to decay.

\section*{THIT BARDY RRUIT GARDEN.} by W. Pope, Gardener, Highclere Castle, Newbury.
THINNING AND DREBSING STANDARD TREES. The present is a very suitable seanon for the thinning of the crowns of orchard and other standard frait trees. Praning, as it is generally underatood, is rarely necessary in this department, but thinning is beneficial to the trees, and should be taken in hand, always before the leaves fall if time can be apared. It is so much easier to determine whether a branch may be taken away with advantage, when the foliage is on the trees, regardless of the known benefit of early praning. In the case of old or neglected trees, large branche should not be cut away at once with the view of thinning once and for all, as the effects would be worse than thöe which accompany neglect; but commence by taking out a few of the maller branches, and overgrown spurs here and there-an operation which may be rej eated year by year, and which together with manurial aids to the roots in the shape of woodashes, soot, or farmyard drainage applied during the winter will lead to a great improvement in the health of the treer and the quality of the fruit. At soon as all the leaves have fallen, the rough bark of the trunk and larger branches should be scraped with some blunt instrument to free it from moss and lichens, which form a hiding place for variou injurions insects and their eggs. These merapinge should be allowed to fall on to a sheet, so that they may be eavily collected and burned, as well au the leaver and mall prunings. It would be wall, if the trees have been inferted with insects, to thovel op urface-soil under them, and charit, fresh soil from land not ander fruit taking its place. When insecte give much trouble in orchards ander grase, it in sometime advisable to pare off and char the turf, afterwarde lightly pricking over and pulverising the ground, which is bett done with a digging-fort or

Kentish hoe, and applying a light top-dresaing of gas-lime or gas-water, the latter being ased on the branches as well. Gaf-water should be dilated with three time it balk of clear water. For the deatraction of moss on the trunks and branches, frestly-slated lime is an effective, and easily-applied meant. It should be scattered over the trees. when they are wet with rain or dew.
prunina and dressing apricots. - The unripened shoot may now be ahortened to a firm wood bud usually fonnd at the base of the shootn, and if the summer pinching wan properly attended to, not much praning will now be required. As soon as the leave have fallen, unfasten the treen, and wash the branches with warm sonp-ands, made by dissolving 4 oz . of soft-soap in one gallon of water; i soft brash hould be naed generally, but when the brown-scale is present, it may have to be dislodged by other mean before washing the trees. If the wall have many nail-bolev, and the pointing haa fallen out, some good mortar or cement should be used to atop the boles and make good, the pointing. When nailing the treen, be carefal not to braise the shoot, with the hammer, or have ties that will cut into the rind, a irjaries of this kind caase canker and gamming. Having finished the training of the trees, afford a dreaning of ahort dang, after lightly pricking op the surface of the border and pulverising the clods.

\section*{THI KITCEIN GARDEN}

By Joum Lambert. Gardener, Powis Castle, Welshpool.
LATE CAULIFLOWERS AND AUTUMN BROC-COLI.-In my earlier note on these crops I mentioned that all those intended for lifting should have the roots cut roand with the spade so as to check growth and prepare them for lifting. From now onwards, these crops are very important ones in most country establishmente. Owing to the mild weather hitherto enjoyed, we ought not now to be caught unprepared. If no light brick or turf pita are at command, some short, pointed, stout itake should be driven into the ground in a warm sheltered spot, and to these slating-lath should be nailed across at the top; in this simple manner protection may be found for a great number of plants. Leave standing all those with the more forward beade, which may be covered up where they are, or lifted when sharp froste threaten; but lift the bulk of the crop, and transplant them under the temporary protection made, giving them as much room as the apace at command render posaible, keeping the plante erect, which is easily done by ainking them a little deeper than they were before They should be jast clear of each other. All decaying leaves should be removed, and care taken to keep them free of these aftermarde, or the heads will become ill-tlavoured. Do not cover the plants with mats, \&ce, unless it be quite necenary; and when the froats get more severe, dry Fern or atraw may be used as an extra protection. In this manner, Broccoli msy be cat to the end of the year, and somecime later. Cauliflowern and Broccoll intended for exhibiting in November, should be left in the groand, and some mean taken to protect them from frost, bat dig them up before there is any ign of the card opening. Eadeavour to keep them white and freah; the leaves alao muat be green, nothing looking worse than Cualiflower heads stripped of all their leaven.

Chicory and 8alsafy. - The firnt-bamed tender roots should be the first removed from the ground, and stored in fine coal-ashes or damp and, the leave to be used later in the blanched state in salads. Salnafy I prefer to leave in the groand an one does Parsnipm, covering the ground slightly with litter as protection againat froat.
asparagus beds.- The tope of the planta being quite ripe, they may be removed with sharp knife or scythe, and all weeds palled out or hoed and raked off. If some of the tops with seede were saved, these bhould now be gathered, choosing the finest berrien only. Spread the berrien out to dry in a
rubbing out the seed when time permits.

THE FLOWSR GARDEIV.
By Bithex Wadds. Gardener. Birdsall Gardexs. York.
Winterina bedoina plante. - The eevere froute of the past week having cut down Dablias, the tabers should be lifted and stowed away in a thed from which the front can be excluded. Cat the stems to within 6 inches of the tabers, which should be placed on shelves or on the floor for a weel in order to dry the woil that fo abont them. After that
time they may be pat clovely together in boxes on the floor, or on broad shelven in dry pleces. Cover the roots aboat 1 inch deep with dry andy ail, and then, if the shed is dry and cool, and froat is excluded, they will keep well antil February or March. Hollyhocks, if of acasce varietiee, whould bo lifted from open bordert and potted into gond andy loam and leafooll, and the pote planged in old Muehroom-bed or other dry material that will not heat. A cold frame, or preferably pita from which the frost can be excluded, will anower for them. Cattinge that were etruck in Augunt may be planged in the ame place. Admit abondance of air during mild weather, keeping them plamp and fresh; but not over-watering them. If mildew or otber fangois growth occar, dunt the placta over with anlphar. Gladioli balbebould be lifted and dried in a cool airy shed, keepling them from frost. The Breachleyensis varieties are hardy in dry well-drained borders, but the surface should be well mulched to keep the irost from them. I prefer to lift them every Begonias and Cannas in the apring. Taberous a little, and the tabera afterwarde stored away in dry sandy oil in shallow boxes or on ehelves in a dry bed. If the temoeratare of the place in not allowed to fall below \(40^{\circ}\), they will keep very well.

CALCEOLARIAB.-Good early cuttinge of these were very acarce this season, owing to the drought They shoald be kept well ahaded and watered, that they may keep plamp and fresh until they have made roots, then affording them abundance of air, except during bharp frosts, when they should be well protected with mate and litter.

PELARGONIUM8.-This hae been a good season for atriking Pelargonium cuttings. Thowe in boxes will require very little water after this time. Ker p them ae cool as ponsble; it in better for them not to make much growth antil they are potted off in February. The floor of a late vinery is a good place for them. Oid plants that have been litted from the flower-beds should have all of the leaves removed, and be laid thickly together in leaf oil in pits or cool-houses, giving them a water to keep them from withering, and abandance of air. Do not cut them in any way at present, unless to take out decaying shoota. When pits or bed for laying-in old planta are not to hand, they abould be potted six or eight together into 8 or 10 -inch potis, and placed ont of the reach of frowt.
miscellaneoub. -Irenine, Coleas, and Alternantheras require to be lept in a warm or intermediato hoase daring the winter month, and care should bo taken to keep them clean from aphides by fumigation. Lobelia speciona, Verbenat, Gazanias, Ageratums, Heliotropes, Nierembergias, and the cool varieties of berding plante that are atruck in pote and atored daring the winter for propagating in the pring, may be kept in a cool airy house, and be carefully watered, not allowing them to get dry at the rootn. Fiowering shoote should be pinched out at soon as seen. A temperature of \(40^{\circ}\) to \(45^{\circ}\) at night, and \(50^{\circ}\) by day, will avit them very well. Centaurea candidissima may be lifted from the beds and potted into 5 or 6 inch pots. Well water them and place them in a cool house where they may have plenty of air, and be kept free from frost. Do not water them over the foliage in the winter time. These plants will give abundance of cuttings in the epring, bat anless old specimen plant are require for planting out, the stock is quickly increased by owing seed in February. Carnations and Picoteen that bave been potted for keeping in pits and frames throagh the winter must be kept rather dry at the root, affurding them sbundance of air, and removing the lights whenever ponible. The pots should be planged into cocoe-fibre or other good dry material, to keep the frost from the root, and covering need onky to be used daring aevere frosta, the planfa not being coddled in any way.

A Weleh Fosbil-TheE-A fire trank of a Fonsil-tree stand apright in the offices of the Maerdy Coal Compaay, in the Rhondds Fack. It wae taken out of the colliery nome time ago, and is 5 feet to 6 feet in length, and jadging roughly from its appearance, is over 2 feet in circumfereace. There is another tree in the colliery, and not yet removed. It atands on the side of a road, and only a portion of it can be seen, bat it will, no doubt, be removed nome day, so that people may have an opportanity of examining a nataral monament of the glorie of "Cymru Fa" forent. Western Mails Oct. 21, 1895.

APPOINTMENTS FOR NOVEMBER.
\begin{tabular}{|c|c|}
\hline & MEETINGS. \\
\hline TUESDAY. & \[
\begin{aligned}
& \text { Nov. } 5\left\{\begin{array}{l}
\text { National Chrysanthemum Society } \\
\text { at Boyal Aquarium. }
\end{array} .\right.
\end{aligned}
\] \\
\hline GATURDAX, & Nov. 9--Boyal Botanic Society. \\
\hline TUESDAY, & \[
\text { Nov. } 12\left\{\begin{array}{l}
\text { Rogal Horticultural Society's Com- } \\
\text { mittese, at the Drill Hall, W ost- } \\
\text { minster. }
\end{array}\right.
\] \\
\hline SATURDAY. & Nov. 23-Boyal Botanic Society. \\
\hline TUESDAY. & Nov. 26 : Royal Horticultural Socioty's Com- \\
\hline & \begin{tabular}{l}
SHOWS. \\
Crystal Palace Chryanthemum.
\end{tabular} \\
\hline SATURDAY, & Nov. 2 Loughborough Chrysanthemum and ( Fruit. \\
\hline MOND \(1 \times\) & \[
\text { Nov. } 4\left\{\begin{array}{l}
\text { St, Noot's Chrysanthemum. } \\
\text { Battersea Chrysanthemum. }
\end{array}\right.
\] \\
\hline TUEsDAY, & \[
\text { Nov. } 5\left\{\begin{array}{l}
\text { Chrysanthemum Shows at Hereford } \\
\text { (two days), southampton, Han- } \\
\text { ley (two days), Brighton (two } \\
\text { dayo), and Watford (two days), } \\
\text { National Chrysauthemmm at the } \\
\text { Royal Aquarium (three days), }
\end{array}\right.
\] \\
\hline W EDNESDAY. & \[
\text { Nov. } 6\left\{\begin{array}{l}
\text { Chrysnathemum Showa at Bromlsy, } \\
\text { Ware, Coventry, Wolverhamp: } \\
\text { ton, Tamworth (all two days), } \\
\text { Ascot, and Cheaterfield. }
\end{array}\right.
\] \\
\hline ThURSDAY, & \[
\text { Nov. } 7\left\{\begin{array}{l}
\text { Chrysanthemum Shows at Exeter, } \\
\text { Hitchin, Birkenhesd, and Harro- } \\
\text { gate (two days). }
\end{array}\right.
\] \\
\hline FRIDAY, & \[
\begin{gathered}
\text { Nov. } 8 \text { Chrysanthemum Shows at Reigate, } \\
\text { Waterford, Windsor, and Derby. }
\end{gathered}
\] \\
\hline MONDAY, & Nov. 11 -Hloucester Root, Fruit, and Grain. Chrysanthemum 8hows at Croydon \\
\hline TUESDAY, & \begin{tabular}{l}
( P wo days), Louth (lwo days), \\
NOP. 12 Plymouth (two dags), Kingston. \\
oo-Thames (two days), and
\end{tabular} \\
\hline WEDNESDEY. & > Chrysanthemum Shows at Birmiog. ham, Bournemouth, Bristol, Hertiord, Hull, Isle of Thanet, Reading, Lewes, Faversham, Bugby, Barnsley (all two days), and Chelmsford, Ayr, and Yeovil, \\
\hline THURSDAY, & Nov. \(14\left\{\begin{array}{l}\text { Chrysanthemum Shows at Edin- } \\ \text { burgh (three days), Winchester } \\ \text { (two days), Lincoln, Wimbledon } \\ \text { Barnet, Guildford, Firchley (all } \\ \text { two days), and Caterham and } \\ \text { Cambridge. }\end{array}\right.\) \\
\hline Flibay, & \[
\text { Nov. } 15\left\{\begin{array}{l}
\text { Chrysanthemum Shows at Bolton, } \\
\text { Sheffield, Bradford, Stockpor, } \\
\text { Ginckley, and Chorley (all two } \\
\text { daya). }
\end{array}\right.
\] \\
\hline satumdax, & Nov. \(16\left\{\begin{array}{l}\text { Chrysuntheraum Shown at Batley, } \\ \text { Crewe, and Bacup. }\end{array}\right.\) \\
\hline TUESDAY, & \[
\text { Nov. } 19\left\{\begin{array}{l}
\text { Leeds Parton Chrysanthemum } \\
\text { (two dayg). } \\
\text { Chaster } \\
\text { days? }
\end{array}\right.
\] \\
\hline WEDNESDAY. & Chrysanthemum Shows at Fork (three days), South shields (two days), Dundee (two days), Tonbridge (two days), and Helensburgh. \\
\hline THUASDAY, & \[
\text { Nov. } 21\left\{\begin{array}{c}
\text { Chrysanthemum Shows at Norwich, } \\
\text { Aylesbury, Glaogow, and War. } \\
\text { wick. }
\end{array}\right.
\] \\
\hline FRTDAY, & Nov. 22-Msnchester Chrysanthemum. \\
\hline TUESDAX, & Nov. 26 (Tredegar Chrysmathemum (two \\
\hline \begin{tabular}{l}
frtony, \\
saturday,
\end{tabular} & \begin{tabular}{l}
Nov. 29 Alderley Edge Chrysanthemum at Wilmalow (two daya). \\
Nov. 30 -Dunfermline Chrysanthemum.
\end{tabular} \\
\hline
\end{tabular}

SATURDAY, Nov. 30-Dunfermline Chrysanthemum.




Chiswick.
deners with some apprehension. The Council of the Rojal Horticultural Society has informed the public that changes are contemplated, but up to the present it has vouchsafed not a particle of informstion as to what its policy is likely to be. We need not do more than make passing allusion to the glorious history that attaches to Chiswick, the plants that were introdaced from there, the collections of fruits that were got together, the observations that were made in these old gardens. But this is all ancient history and the present generation, and still more the coming raoe of gardeners, is, or will be, if not wholly ignorant, at least indifferent to what has been done. There was a time when even the Council, extraordinary as it may seem, were compelled to negleot Chiswick. Owing to financial troubles, the garden was first reduced by more than half its area, and then the remainder was left pretty much to take care of itself When brighter days came, the Council very properly set to work to restore the dilapidations and ruin caused by years of negleot. Of late jears the expenditure has been large, but the result is seen in the general good condition of the buildings. Only two of the old ruinous houses remain, and these have long since been condemned by the Chiswick Board.

The Conferences on Apples, Pears, Ferns, Conifers, Roses, Pinks, Chrysanthemums, Dahlias, and other subjects, which have been held of late years in the gardens in connection with exhibitions, have been singularly valuable and instructive. Some of these, no doubt, could have been as well hald elsewhere as at Chiswick; nevertheless, the fact remains that the Conferences held at Chiswick have been quite the most successful of any-we mean, of course, so far as the falfilment of the object of the particular conference was conoerned.

The work done at Chiswiok at the present time is varied. As every gardener knows, there are each year numerous trials-now of this flower, now of that; now of this vegetable, now of that, whilst standard collections of fruit are maintained. The trials, so far as they go, are well carried out, and the results are carefally recorded. Especially are they conducted with sorupulous fairness and absence of bias. Complaint is made, and with reason, that the publication of these records is sometimes delayed so long, that their value for commeroial purposes is seriously impaired. That is a defect which can easily be remedied; and, moreover, commercial considerations are better left to the great tradegrowers, who have their own trial-grounds. It is ebvious that the results of these trials, organised and supervised by the saperintendent and his asaistanta, and periodically eramined by the several committee during the season, must be of far higher value than those obtained by the cursory examination made of specimens exbibited at the Drill Hall, and of much more importance than the opinion of individual gardeners paraded in trade catalogues.

In some cases the trials are superfluous. There is little atility, now-s-days, in the Society growing a colleotion of Chrysanthemams, Pelargo. niums, Fuchsias, or tuberous Begonias. These have long since passed out of the experimental stage, and the trade may be trasted to malke their trials on a larger and more complete soale than oan bedone atChiswick. Cannas, on the other hand, are at present relatively new in gardens. The publio do not yet know mach aboat them, and it is deairable that the Sooiety should grow illas-
trations of the various types, under various methods of cultivation, until they become gene rally known, and the most appropriate method of culture decided on.
A very large portion of the resources of the Society is now spent on the growth of plants for distribution to the Fellows. This is matter in which reform is needed. The plants grown are, for the most part, of no apecial horticultural interest in themselves, nor doen their cultivation present any problems to be solved, as they are, for the most part, of the easiest culture. They are plants which, spoaring generally, can be bought from the nearest greengrocer for a shilling or two. In the matter of cultivation they cannot reach the atandand attained by the market growers, who grow superb specimens of special things because they can devote an undivided attention to them which is not practicable at Chiswick.

The sale of Grapes, Tomatos, and other produce, is necessitated under present oircamstances. This is a great misfortune-a lament able departure from the legitimate work of suoh a garden, and an unjustifisble trespass on the funotions of business establishments.

With a gigantic conservatory and other houses to maintain, we do not wonder that succemive Councils endeavour to recoup some of the expenses of maintenance; but everyone will admit that to attempt to combine an experimental garden with a commercial establishment is to neglect the one department, and to conduot the other unsatisfactorily. All over the world this is so, as those may see who read the accounts of colonial gardens where commercial interests are allowed to be mingled with those of horticalture proper.

The resources of Chiswick and the labours of the staff should not be devoted to objeots which oan be as well, or better, carried out elsewhere; rather should attention be paid to matters whioh the average bortioulturist, amateur or commercial, has not the means to undertake for himself, or which it may be, for the time being, inexpedient for him to attempt.

Chiswick should be a great referenoe-garden, where authentioally-named specimens of the best fruit trees, and the best vegetables, should be grown for reference and comparison. Many questions of disputed nomenclature, which now-a-days are difficult or imposaible to solve, might readily be settled in this way.

In like manner, diverse methods of praning, and variations in cultural methods generally, should be tried. So far as possible all nen methods and all new inventions should be sabjected to trial at Chiswick. New plants of all kinds should be grown, and their value for hortioultural parposes be teated. With suoh a large constituenoy and so many foreign members, seeds of tropiosl and other plants might be grown for trial. What if the bulk proved to be of no value, even that information would be aseful, and in a few cases something interesting would be sure to turn up. As it is, we do not remember a single new plant to have been made known, still less distribated through the senoy of Chiswick for many years. What a contrast to what was the oase thirty or forty years ago!

Scientific experiments and "researoh"are, wo fear, hopeless without a competent direotor to initiate, watch and conduct them to a suooessful reault. The salary of a competent director of the kind we have in view would form so ots siderable an item in the jearly budget, that we fear in the absence of other support it would not be sanctioned. We do not forget that some years ago more than one series of experiments
were carried out at Chiswick under the anspioea of the Scientifio Committee. But the labour, and it was not inconsiderable, fell to the share of two or three busy men already overweighted with their own affairs. The ezcouragement
important-il not the most important-features of a national experimental garden.

Muoh more might be said in detail as to the proper functions of Chiswick, more especially in connection with a properly-equipped school of

LINNEAN SOCIETY. - The next meeting of the Society will be held on Thareday, November \%, at 8 PM ., when the following papert will be read :Col. Swimhos, "On Mimicry in Batterfies of the genu: Hypolimnae, Hübr." Mr. G. F. Scott Elliot,


(Grown in the Botanic Gardea, Cambrider.)
reoeived by the willing horses from the Council was practioally nil, whilst by the Follows at large the whole thing was ignored. The prospeots of experiments of this kind are therefore far from promising, and yet these experiments should undoubtedly oonstitute one of the most
horticulture sapported by the pablic funds and managed by the Society. The Council has raised our erpectations to a high pitch. We earnestly hope we may not be disappointed, but that Chiswiok may take its place as the first hortioultural experiment and reference station of the world.
"A Reviaion of the gena Pertar, Beath." Dr. A.G. Buther."An Accomat of the Battertien of the genus Charaxen, Ocha."

Royal Horticultural Society of ibeland. -Oa Wedneaday and Thuraday, Novamber 6 and 7 , the R ygul H articaltural S ciety of Iroland will hold
their annual Fruit and Chryanathemam Show. The show will be held in the premises of the Royal Dablin Society, at Ball's Bridge. Several special prize are offered for competition, including three challenge caps prezented by Lord Ardiladi, Mesare. Watrbiotse \& Co., and by the gardeners of Ireland. Silver and bronzs medals, and many presentation and money prizes will alao be competed for. The date of the show is earlier this year than usual, as the conncil were anzious to convenience exhibitors who might wish to attend the thow to be held in Balfat the following week, and also to allow of growers from the north competing here.

The Gardeners' Company.-At a meeting the coart held on Taesday, October 22, the Master (Lieat.-Colonel Grorge Laybert. F.D., F.S.A.) presiding, the clerk, Mr. R. Gofton Salmond, read a letter from the Commisuioners of Sewers, regretting that they could not accept the offer of the company to place seat in various part of the City for the convenience of the public. The company had been ensbled to make this offer to the Commistioners throagh the kinduens of a member as a memento of his election to the court. The seats will now be placed outside the City through the Metropolitan Pablic Gurdeas Association. The hon, librarian, Mr. Charles Welch, F.S.A., read a report apon the gardening library presented by the compsay in 1891 to the Gaildha'l Library, and sopported by a yearly grant from their funds. The namber of volumes has now reached eighty-seven, a large number of which were fortunately acquired at the asle of the library of the late Mr. Shirley Hibrerd Besides several important treatises on gardening in general, there are monographe on the Bagonia, Carnation, Cbrysanthemum, Clematis, Pelargonium, Narcissue, Rone, Vine, and other plants. The recent purchases include Nicholson's Dictionary of Gardening, and a apecially fine copy of Lindley's British Fruits. The booke are already largely used by the readers at the Gaildhall Library, and as the collection is rapidly growing in extent and importance, it will doubtless aoon become very widely known and appreciated. The example of the Gurdeners' Company may with greas advantage be followed by many of the more wealthy City guilds. City Press, Oct. 26.

The royal gardeners' Obphan fund.The asaal monthly meeting of the committee took place at the Horticultaral Clab on the 25 紬 alt., Mr. Willtam Marsiall presiding. The following apecial receipts were announced as having been rece ved during the past three months:-Legacy from Mr. J. Taplin, Havant, \(£ 55 s\); the Rev. A. Lowe, proceeds of collection at Harveat Tasakngiving, per Mr. J. Bennett, Barton-on-Trent, £6 68. \({ }^{2}\) Mearra. J. Criepin \& Sone, Show Rooms, Bristol, per Mr. J. H. Vallance, £5 5s.; Mr. Arthar Miles, Dadley Villas, Southampton, £2? 3s.; collected at Woodford Flower Show, per Mr W. W. Willoughby. £2; Bradford Paxton Society, per Mr. R. Scott, £1 108.; Mr. J. Barn, Abbey Park, Leicenter, £1 5s, ; the Miseses Evans, Wimbledon, 17s. ; Mr. H. Barbidga, Wentgate, 10s. \(6 d\). ; and collected by Mr. W. G. Head, Cryatal Palace, Sydenham, £3 15s. 8d. By menno of boxes, the followiog sums were obtained: J. Mr. J. Selvay, Bettashanger, Dover, £4 5s, ; Mr. J. McIndoe, Hatton Hall, Gaisborough, £5; Mr. C. Satton, Chevening, Sevenoaks, \&1 \(12 s_{s}\); Mrs.
H. B. Smith. Ealing, \(7 s .5 d\); and Mias Mcionald, Chichester, \(7 s\) s. In small suma, per the Elitor of the Gardeners' Chronicle, from October, 1894, to October, 1895, £2 48. The remainder of the business was of a purely formal character, and the proceding cloned with a vote of thanks to the chairman.

\footnotetext{
Peeblesshire horticultural Asbocia-TION.-The second meeting of the session of this Alourtahing Anociation was held in the Ieszer Good Templars' Hall on Tuesday evening laet. Mr. A. the minates of the previd, occupied the chair. After the minates of the previous meeting had been read Kingemendown, read ar. Mcaper on " The The Gardenn, Kingemendown, read a paper on "The Cyelamen:"
}

The South Shields and Northern Counties Chrysanthemum Society's extibition will take place on November 20 and 21, in the Royal Assembly Rooms, at South Shields. The achedule are in addition to local clasees, others which are open to all comern. Mr. Bernard Cowan in the Hon. Sec.

Marriage of Mr. Jackman.-On the 17th ult., the nuptials of Mr. A. G. Jackman, nareryman, Woking, with Mias Florence Sannage, of Leicester, were celebrated, and in connection therewith, the emplojes of Mesors. Jackman \& Sons were entertained to dinner.

Mr. Vernon Heath.-We learn with regret that this well-known photographer died in London on Friday, October 25, at the age of seventy-five. Mr. Heath's landacape-photography and his viewn of country-houses attained to a high degree of excellence. A number of them are in the Gaildhall Library. Among some of the beat he ever took were those of Burnham Beechen, a series of atriking, beautifal views. Mr. Heatr, a fem years ago, compiled a volame, entitled Fifty Years' Recollections, which was pleasant readiag, and contained many good stories.

Agicultural Returns.-Farmers and others interested in the caltivation of the soil, cannot bat agree that they are well attended to by the Board of Agricultare in the matter of statistics and other contribations to the literatare of the day selected for their apecial use and delectation. And this is certainly to be commended, especially as the Board of Trade retarns pablished every month aupply the same gentlemen with "matter sufficient to give them pause." Last week there was issued by the Agricultaral Dapartment whatis termed "Statistical Tables," showing acreage ander crops and grant, and number of horses, cattle, sheep, and pigs in the United Kingdom, with particalars for each connty of Great Britain-all preliminary to the annual and completed report for the year, to be issued at the usaal time. The pamphlet is made ap of an enormcan mass of figures, none of which do we propose inflicting upon our readers. Safficient to note here, the growth in the number of acres devoted to market-gardening, and to orchard cultivation. As to the latter, they (in Englanü, Walen, and Scotland), covor an area of 218.000 acres, in 1894 it was a trile under 214000 acres. As to market gardens they cover 92,837 reces, as againast 88,210 lant year. Bat it mast not be supposed that all of this land was withdrawn from other culture, for those who read of land ales, know very well that large eatates are being broken up into amall farms, which produce better returns for the vendor and form grand mpecalations for the bayers. As for fruit, there is not now a breakfast-table in the land lscking its jam-pot-jams of all aorts, aingle and compound, are in great and growing request; and in addition, sugar continues cheap. Decentralisation in the matter of markets is being duly recognised as beneficial ; and doubtlens, our frienda of the Agricultaral Department will more and more zee their way to extending their field of vision-eapecially in the matter of marte for asle, and the rexults in the matter of land and crop.

The Wonders of Fernland. - At the Memorial Hall, Farringdon Street, on November 5, under the auspices of the National Amatear Gardening Sucisty, Mr. Chas. T. Drubry, F.L.S., will give a lecture on this suhject, illustrated with namerons lantern aliden, showing photographically and actually the wonderfal featares of Fern life generally, and more eapecially of British Fernu, and their most beautiful varieties.

Coloured Glass and Strawberries.-We rend in Inventions of Oct. 22, that in caltivating Strawberries under glase of various colours, Prof. Zacharinwicz, of Vaucluse, France, has obtained the following resalts:-Ordinary clear glaes gave the beat and earlient fruit; orange gines increased the
vegetation, but injared the quality, size, and eurliness of the frait; violet glass increased the yield, at the expense of the quality; red, blue, and green glau were hurtful to all kinds of vegetation.

The Worcertershire Branch of the Gardeners' Royal Benevolent Inbtitution. -The inaugaration of this branch will take plece at the Guildhall, Worcester, on Monday, Nov, 18, and the chair will be taken by the president, Earl Beauchamp, Mayor elect of Worcester, at 3pm Several influential gentlemen have promised to sapport the chair and address the meetiog, whilut every effort is being made by the committee to secare a thoroughly representativa and accenfal gathering. All friend of the canse, and patron of horticulture, are cordially invited to be present.

The Late Professor Huxley--4 biography of Prof. Huxley is being prepared by his man, Mr, Leonard Hoxley, who will be greatly obliged if those who possess letters or other documents of interest will f.rward them to him at Chartertone, Godalmiag. They will be carefully retaraed atter being copied.

\section*{YUCCA GUATEMALENSIS, Baker.}

THIS species, the subject of our illustration, fig. 92, is perhaps the most imposing of the very ornamental genus to which it belongs. The drawing mere made from a fine specimen, which flowers abont every three years in the Botanic Garden at Cambridge, and where, no doubt, it has grown for many years. Owing chielly to its size, it is cultivated in the Palm-honse, where it is planted out, and, in order that too mach apace may not be occupied, it in cut back after flowering, and only one or two hoota are allowed to grow. It has a principal atem or trank, from which the flowering-branches proceed, and the treatment just alluded to accounts for the habit shown by the illuatration on p . 525 . With free growth there would be several stema, bearing an enormous mass of foliage. The main atem or trunk abore referred to, is about 6 feet in height, and aboat 7 feet in circumference at the base, whence it decreame in size to about the middle, again increasing nomenthas towards the point of branching. The flowering-sbots meaanared about 18 feet, including the panicle, the height of which was about 3 feet 6 incher, and foliage began at about 3 feet from the base of the shoot. The total height of the specimen, it will be seen, was about 24 feet. The panicle of flowera is rhomboid in shape, and utriking on account of its density, the flowers seeming to form a solid mase. They are (eee fig. 91, p. 519) from \(2 \frac{s}{s}\) to 3 inches long, the negments oblong-lanceolite, sharp at the point, and aboat 1 inch in width, tholer on the ontside broader than the inner. The colonr may be dencribed as ivory-white, and, speaking of the panicle, as a whole, it conld not eanily be nirpassed in magnificence.
Yucca guatemalensis belong to a set of about half-a-dozan species, which is characterived by having serralated leaves. All have a very shori peduncle, with the exception of \(Y\). rapicola, in which it reaches a length of 3 feet. Y. aloifolis is a ppecies too well-known to need descrintion. \(\overline{\text { Y }}\), jucatanas is similar, with lesven 14 to 16 inches long. Tho remaining ppecies, dencribed by Mr. Baker in the Journal of the Linnean Society, vol, xviii., are X. bre vifolia and \(\bar{Y}\). Deumetisna, the former having rigid leaves from 6 inches to 1 foot long, and one third of an inch broad, the latter with recarved leavel of twice that width, and either of a purple colvor. when young, or when older having a naror pale margin. The present epecies is the largag of all, ita leaven are onviform, 3 fer derls
about 3 inches wide near the middle, very about 3 inches wide near the middle, verf and figured br Mr. Baker, in Sander'a Refugium, in the year 1870, and, according to him, was incroduced about twenty yeara earlier.
known under a variety of names, \(\bar{Y}\), Roozli, Drecmote yaccoides, and D, enaifolia being perhape the mors familiar, The name adopted at Cambridge received from Kew, and may, therefore, be accepted without quention. Thongh referred to Gastemien. by its name, thim apecies iz also a native of Mexico R. J. L.

\section*{Home Correspondenoe.}

FRUIT FARMING IN BOUTH AFRICA.-In answer io the enquiry of your correspondent, "H. F. T." as to fruit farming in South Africa. as agent for the Cade Orcbard Co., I shall be glad to give him any information I can on the abject, if he will call and see me. or write what abjects be wishes to be informed on. My son, who has jast retarned from the fruit diatricte of South Africe, will alao be able to enlighten him on most of the points connected therewith. G. E. Budson, The Cape Orchard Co, Limited, Suffolk House, Laurence Pountney Hill, Cannon Street.

FLOWERING OF THE JERUBALEM ARTICHOKE. -An a consequence of the prolonged warmth, this plant has been blooming in abnudance in the market gardens in and around Bath, and bes thrown up atems to the height of 10 to 12 feet, bearing cluster of bright yellow flowerm, which when cat are uteful for decoration. F. Nash, Bath. [It ir not uncommon in warm yeart. Ed.]

THE GUIDE TO KEW GARDEN8.-When greatly enjoying a recent visit to these fine gardenr, I was mach disappointed to find that the popular guide had been out of print for some time, and not one to be had for love or money. Perhaps the authorities would advertise these guides in the Gardeners' Chronicle, and the other gardening papers. The want of this gaide and the shortness of the time available prevented me from making notes of the herbaceons plants and others in bloom at the time of my visit. D. T. Fish.
pruning fruit trees.-After reading Mr. J. Simpson's article ander this heading in your lat issue, I came to the conclusion that to write anything which thall be clear to the mind of the ordinary reader is a difficult matter. Mr. Simpmon professes to criticise what I have written, and I feel sure that he wishes to do so, but what he criticises is very far from what I intended to ary. I have not a copy of my paper before me, bat I would ank, whence comes the atatement that a atandard tree, or, indeed, any other, should be pruned as a bain: I amperfectly sure that it in not to be found within the limits of my bort paper. I am, of courae, aware that the greater part of the more recently-planted orcharde in California are proned in this way, and the praners find the resulte excellent, despite Mr. Simpon's experience, but I certainly never advocated it. What I said was, "that all branche must be so disposed as to admit the sunlight and air into the middle of the tree," but I fail to see the necessity of catting out the centre of a tree, so that the an may reach it, and certainly after it was removed, it could not be fertile. No, I do not advocate a basinPhspe for atandard trees in this country, for I think that a tree with in central axis from which the branches radiate, is much better calculated to resist atorma, and much more eanily managed. What I wiahed to insint upon was, that the branches radiating from this contral axir, thould be placed wide enough apart to admit sunlight into the interior of the tree; this, after the first praning or two, is a very simple matter, and if any croaning branchen be removed, and the thin growth which often aboot up from the lower portions of branches and make the interior of apple tree like a crow's neat, be cat out, the leas praning a atandard tree geta the better. I fancy all this difficulty has arisen from the writer having amused himself with mixing up atandards and cordons "in the frait-bearing habit, of which," he eays, "there is not an iota of difference." Let us grant this proposition, it is perfectly true of a really scientifically pruned pyramid. such an I have helped to prone in years gone by in Mr. Van Hoatte's garden, near Ghent, but I fear it would be quite out of the queation to prune a atandard tree in such a way, and, at any rate, the umbrella-baped head into Which no light or air could penetrate, which seem: dear to Mr. Simpan's heart, is as far removed from cordon training as the equator from the poles. Mr. Simpan eay that my directions on the aubject of pruning standards and cordons are contradictory; they were intended to be so, and I rejoice to find that at least on one point I have been understood. My remark were upon praning young treen, and my reason for cutting away two-thirds of a healthy atandard wes, that it should make strong vigorous growth to form the tree of the futare, and to prevent ite bearing frait. This in the rock apon which we aplit-the non-pruning of freshly-planted atandard trees. I want my young tree to make growth and not frait, and therefore I am dubbed a "mutilator."

(see p. 52s.)

I am content, the "little band" is growing fast, and I bope one day to find my critic creeping into the fold; bat becanes we prune our young trees to prodace growth, and our formed cordon, eapalier, and pyramid trees to produce fruit, we are held up to ridicule-thit I do not consider rensonable. Mr. S. admits that my advice upon praning cordona is sound, this makes me happy, and as, in pite of his mixing the two together, I intended the edvice upon prasiag young atandard to be diametrically opponite, after all, I think, I must have made myaelf underatandable if not underntood. The quoted remarks of Mr. Wilks, to which might be added those of the late Shirley Hibberd and hoats of othera, as to non-pruaing, do not enter here at all. I wrote a paper on pruning, not on neglecting to prane. I do not for a moment say that the majority of atandard trees are not better if in after life they are left, practically apeaking, unpraned, i.e., if they simply have crossing branches and bruch wood removed, but before one can leava them to thus etand alone, they mut be trained in good way ; this is obvioue, or one might reduce the question to atter abardity, by aying that a tree should not be praned from the time the grafe is pat apon the stock in the nursery. On the other hand, all forms of garden trees, eapaliers, cordont, and pyrawidp, must be praned to obtain the bent resulte, and surely becaune a certain section of the public, profencional an well at amateur, are no incompetent as to ruin their trees when they attempt to prane them, this is no resen why we should abatain from trying to throw ome light apon the surject. No, Mr. Simpan, you no doubt thoroaghly anderatand praning, and you should have taught your man how to use his knife, and not have bargained that it nhould be kept in his pocket. A. H. Pearson.

WINTRY WEATHER IN YORKBHIRE.-Daring the paot week there have been experienced in this jocality a aharper anap of winter for the time of year than has been known for twenty-three jear. The loweat reading of our thermometers have been \(20^{\circ}\), that is \(12^{\circ}\) of frost; but I bear of a neighbouring gardener who has registered \(14^{\circ}\). Oa Saturday morning last there wa a complete covering of now, which in places the sun does not reach, itill lays on the ground. The ground this morning (Saturday last), wae hard enough for us to wheel manare apon the vacant quarters in the kitchen garden, sare occurrence in October herosbouts. B. J. C., Griunton, Tadoaster, October 28, 1895.

IN 8U86EX.-On the morning of the 27th the mill-pond in front and behind Uckfield Mill was frczfn over. Such has not occared in October before for the path forty-six years. All outaide fowers have disappeared as if by magic. A.P.

IN KENT. - During the lart few days I bave been travelling in that garden of Evgland, Kent, and have heard of a robin's neat with egge, and rooks engaged in nest-bailding; and have seen Bhododendron ponticum in flower, also Laburnuma and Pyras japonica; and I bave gathered Apple blowom from tree bearing grand crope of frait. On Fridsy, October 25, I gathered ripe Strawberries and grand Raspberries from plants in the opan, and there are good crops of these fruit in places. Tbat grand old Rone, Gloire de Dijor, and ochers are flowering profusely on cottege walit, and fiae blooms too, proving what a remarkable seanon it hes been; and now in some districts evere front hat set in, \(10^{\circ}\) to \(12^{\circ}\) being noted, killing all kind of tender things, eapecially bedding planta, Dahlia, \&c., and making terrible havoc. A. O.

THE TRUTH ABOUT PRICE8. - What jolly time we poor growera might have if the pricen for Apples and Plum given in that cheerial prize ensy were only correct! £26 per ton menas sbout 11s. pur nieve. Apples differ in weight, bat 48 lb . per sieve is not far out. Wellingtons, when well-grown and well kept, letch as much as eny sort, and wo munt look back to 1889 , when that severe froat ipoiled to mady Apples both rative and imported, to find a bushel elling for 128, after the winter was over, and when I marketed 869 buhels of winter kiade. But that is the sort of good luck which comes to one once in a lifetime. In March, 1895, Welliggtons were 8s.; to-day they are \(4 s\), and very fine fruit indeed, but the frait will not kefp, it haviog been grown on caltivated land; those from orchard are atored for afxt upring. King of the Pippins is making 48 . 6d. per buphel now; in Octnber lat they were \(5 s .6 d\). and in November, 1893, 58. Of coarse, there are carriage and commianion to take off thene prices, which coss
me 1s. per bashel. Czar Plume last Auguat were 38 per buahhel, Rivers', 9s. In fact, a glance as any otatements. Mid Kem. the fallacy of the ensayis's statemente, Mid Kest.
well to call attention sondent, "D. T. F.", does of forther explanstion as to these, as put formard in the Royal Horticaltural Society's prize ensay. Are the pricen quoted averages? If no, how many yeara, and from what nource received, open market, or from private shop or otherwise? I know that the top price for good Blenheim Orange Pippins, or King of the Pippinz, offered by large bayers in this country, does not at prement exceed £ 8 per ton: while quotstions from markets 2 wey are from \(£ 7\) to \(£ 10\), the rail way and market chargea taking away from these £2 10 £ 3 per ton, the nett retarna being at the rate of \(£ 5\) to \(£ \varepsilon_{0}\). Your sverage market quotations are also very much on the asme scale. \(R\).
The Gardens, Whitfeld, Herefordshire.
MUBCAT OF ALEXANDRIA VINES AT PRE8TON
HALL, MAIDSTONE. - Amonget the many ex-
amples of pood caltivation to be seen in the gardens
at Prenton Hall, is a vinery of Maccat of Alezandria.
This vinery wan planted in April, 1894, and the
Vinet were cat back in Febraary of the present
year. The canes are fully 26 feet long, short-jointed,
and over 3 inchen in circrmference at 5 feet from
the groand. The border is ontaide. These Vines
afford promise of rendering a good account of them-
selves next reason. Mr. Jarman, the able gardener at
Preaton Hall, intends replanting all of the vine-
ries there by degrees; and should they all do at
extroordinary.
be been at foot of this al fund.-Reniding, an will be seen at foot of this note, a considerable distance from London, and eeldomenoing that way, I have not had the opportanity of reeing the work done at Chiswick, and am not in a position to give an opinion as to its merits. Judging, however, by the abundant tastimony of those who have seen thet work, both as exprensed in your colamak and in private correapondence, I am folly antinfied that, on the whole, it has been real nolid work, and as mach, deserven the praine of all horticulturiata. Pernonally, I am of
opinion that, as a rale, the beat teatimonial aman opinion that, as a rale, the beet teatimonial a man
can have for any good work he has done, is the atill amall voice of conncience. No doabt there may be exceptions to this rule, as in the very excellent services Mr. Barron has rendere das Honorary Secretary to the Gardenert' Orphan Fund. Having bad some little to do with aggenting the idea of acha fand in the early part of the Jabilee year of 1887 , I shall gladly give my mall mite to the Teatimonial Fund now being got together on his behalf. At p. 81, vol. iii., of the Gardeners' Chronicle for 188\%, you pabliiked a fow notes from me bearing apon the fair Fart already made in entablibhing a Gardeners' \(O\) rphan Fund; an the following extract bas some bearing on my point now, perhape you will let me repeatit. Amongat the many otherr who bave given their time and experience to mataring plant for the futare working of the fund and other organiting work in connection therewith, I think that mach is due to Mr. Barron of Chiswick for aning to freely his great horticultaral infurence on its behalf. I can asy this the more freely an I have not the honour of being pereonally acquainted with him, or bat very alightly." As to the latter portion of this extract matters Wemain as they then were, we have not met since. Withont in the leat wishing to detract from the Tery excellent work done by the chsirman, com-
mittee, and others, in connection therewith, I atill mister, and others, in connection therewith, I atill hon, wecretary. It is on this groand I ventare to nuggest to all interested in the good work of helping those who cannot help themelven, i.e., orphan children, to add their mite to Mr. Barron's testimonial fund. I asy mite advinedly, as I take it the smallest sum will be acceptable as well as the larger onenjant according to the power of the contributoro \(B, J_{\text {. }}\)

\footnotetext{
Bougainvillea banderiana. - I war interented on reading your correapondent, "R. D. s." note on this plant in the iesue of the Gardeners' Chronicle for October 19. That it is distinct frome B. glabra I am willing to admit, but I whe under the impression with us it has not proved itering, but, unfortanately. be glad to know how iteelf to be ascho I shail this reapect in other gardenve. Elity hach. behaved in this reapect in other gardens. E.E Beckett, Elotree.
}

\section*{SOCIETIES.}

\section*{ROYAL HORTICULTURAL.}

\section*{Scientific Committee.}

Octobre 15- Present: Dr. M. T. Masters (in the chair) ; Rer. W. Wilk, Mr. J. Weathert, and Rer. G. Henalow, Hon. Sec.

Iniury to Foliage by Wind.-Mr. Ch. Plowright, of Iynn, sent phutographs showing how trees, \&c., were damaged on
the north sides by a cold wind on May 16, with the following the north sides by a cold wind on May 16, with the following May 14, we began to thing our fruit crop was safe for the year;
but on the 15th the temperature fell, and on the l6th we had a gale from the north, accompanied by one or two hail showers. The effect was seen in a Hawthorn hedge facing north and couth for the foliage was shrirelled ap on the north side where it is north side was quite blacir, not a leaf eacape 1, while the opposite side did not seem to have suffered at all. A row of Elms showed graphically which way the wind had blown, and some fine old Beeches assumed on theirnorth side quiteanautumnal hue. The
Horse-Chestnuts, from the size of their leaves, afforded very distinctive evidence of the injury they sustained, the foliage having turned a bright red. The above effects were general in this part of Norfolk ; indeed, no tree which was exposed in the least seemed to have escaped. One of the most striking incidents is the Spruce Fir; at East Walton there is a row oif
these trees, whose young shoots have been filled by the cold wind on the north side, and hang like brown plumes at the probable effect of salt, but as a north wind at Lynn is entirely a sea wind, the disastrous effect to the foliage was probably Young Apple Fruit.-Mr.T. Eyre, of Thorpe Lea, Egham forwarded a sample of a second crop of Apples, due to the
prolunged high temperature. Raspberries and other fruits, as well as Laburnum, \&c., in blossom, as the Secsetary season.
Cattleyz Mossic...with Double Growth.-Mr. W. C. Walker
forwarded a photograph of an abnormal specimen with the following remarks:-"I enclose a photograph of Cattleya Mossix that has developed an unusual double growth. When it started after flowering it appeared little different from ordinary growth, but as it grow it formed the two distincs arowthe included in one green sheath at the base.'
Aphides on Lettuces. - With regard to the aphiden in the soil about the roots of Lettuces sent to the last meeting, Mr. G. B. Buckton of Weycombe, Haslemere, reports as follows:-
"As the earth was loose the haling during transit and the comparative drought killed the insects; but I secured ffty or satisfied that they are Pemphigus lactucr (Paserini). This species is subterranean in its larval condition, and it attack also Sonchus and Meliotus. On opening the box two winged flies escaped, one of which I secured, and it turned out to be a true Pemphigus. The pupe are without nectariee, and alnoost if not quite blind. The winged female has moderste eyen, and black. A diagnosis of the insect will be found in Aphidida Italica Passerine, p. 77, 1885."
Monstrous Ancmone japonica.-Rev. C. Wolley Dod sent specimens of the foliage with the following remark:- "Six yeare ago I noticed a shoot with crimpled leaves, andseparated it: pext year, with ordinary soil and cultivatiun, it asumed
this monstrous form. It has entirely lost the usual running this monstrous form. It has entirely lost the usual running rize, evidently at the expense of the increase of the plant.
Supposed Spontaneous Hybrid Asters.-Mr. Dud also sent a flowering plant of a supposed bybrid between 4. Thomson: Clarke, and A. omellus, Linn.. remarking, "This came from seed collected in my cwn garden. It bas now flowered for five years. It begins to flower early in Jaly, and continues in flower till hard frost. It hat pever produced fertile seed. The other hybrid was between A. Thomsoni and A. pyrensens, D.C. A. Thomsoni produces good seed very sparingly, but one plant growing between two plants of A. pyrensezs produces good soed plentifully. Some of these seeds produce typical A. Thomsoni, and often the nondescript plant sent. This is entirely sterile. I have raised many for two or three years in anccemion. They alway have a white pappus to the sears in anccosion. They al way harea
chene, which A. Thomsoni never has."
Some Bistoric Cedars.-Rev. G. Henalow described two large Cedars (Cedras Libani) in the garden of the Rectory as Bishop's Waltham, which, since their age is lnown, are perhaps worth recording. They were planted to commeroorate One, indeer. has so greatly sufferec in a storm, that nearly haif the tree has gone. This one must also have loet to leader at a mparatively early date, as the main trunk now suddenly branches into five large erect minor trunlrs. It is 42 feet in height. The other has retained ite leader, and is about 50 feet high; three of its larger boughe are gone. The girth of the trank of the first at the parting of the roots is 17 leet. The girth at a height of 5 leet from the ground and juat below the loweat boagh is 15 feet. The firth of the lowest bough is 6 feet. This bough arises at a height of 5 feet from the groand. The girth of the trunk of the other at the parting of the roots is 17 feet. The girth of the trank at a height of 5 feet from the ground is 14 feet. The girth of the base of the lowent bough is 5 feet 2 inches. This bough ariee at height of 1 foot 3 inchet from the ground. A bough at a height of 1 foet

4 inches from the ground has been sawn off, revealing fifty-
veven rings of growih. In all the boughs removed the eco tricity is remarkable; in one instance the centre :he ecomfrom the upper suriace, ane stinches from the lower. The
gituation is high and the soif clay. Both trees are bearing cones.
Pear Disecased.--Mr. Veitch, of Exeter, forwarded a Pur
attacked by a fungus. The latter had assnmed a roter attacked by a fungus. The latter had assumed a remarkabie investigation.
Parsnip Diseased.-Mr. Reid, of Culing, forwarded a portioe
Turnip-rooted Parsnip, with purple interior, apparentio
so some fangus. It was also forwarded to Ke .
October 29.- The meeting on Taenday leat is the Drill Hall, Wentminster, was remarkable for large diaplay of Potaton. These were chiely in illasiration of a very intereaing lecture oe the anme azbject, which Mr. A. W. Satton delivered in the afternoon. Near upon fifty lantern mliden, which had been prepared by Mr. Sutton in connection with the lecture, were greatly ap secisted. Orchide were, as uscal, exhibited before the committee, bot were fow in number. Chrysanthemam noveltien were namerous, and a number of awerds were made. The cold weather did not prevent the exhibition of a group of Crotons, and a few other house planta.

\section*{Floral Committee.}

Present: W. Marahall, Evq., in the chair; and Mearr. J. Laidg. H. B. May, H. Herbat, R. Dena, Briscon, G. Steven, J. Jenning, C. J-fferien, H. Blick, H. H. DOmbrain, H. Cannell, and J. Barr.
ontrast with the usually pleasant duties of the comnittee, whes the vote of condolence unanimously paseed on this occasion to the widow and family of Mr. C. F. Banse, whow decease was reported in our iesue of last week. Mr. Berus Was a very much respected member of this committee.
Messre. Jas. VeTtc旦 \& Sons, Royal Exotic Nareary, Kingi Road. Chelsee, showed some clearly hybrid Begonias in bloos, obtained by croseing B. socotreas with a variety of the tubenpors rooted section. An Award of Merit was recommended to Success, a rosy-crimson-flowered variety, semi-double, greenidiyellow in the centre; the habit of growth much resmblo B. socotrana. Eclipse, Sidonie, and Splendent are Farieties difforing from Su ccese chiefly in the shade of colour in the fowers.
Mesars. R. W \(\triangle\) II 4 CE de CO. Colchester, exhibited haltadozen plants in flower of Lycoris aurea. Spikes about 14 inches long, bearing six or seven golden-yellow flowens about bes across. The leaves are developed after the plant has owered. A very pretty specier from China, introduced to his country more than a century sioce, but lost again to culti ation until a year or two ago (First-class Certificate)
Nerine Alleni, a zeedling from N. corusca major, cromel with \(\mathrm{N}_{\text {. }}\) eamiensis, was exhibited by Mr, R. H. ALLEN, Guers bey. The flowers are very closely placed on the scape, and are a good rosy-crimson in colour.
A collection of amall Crotoas, well-coloured, was exhibitol S. S. T. Fisker, Eqq. (gr., Mr. G. Bond), amonget which wer soreo neeinl and pretty plants for winter furnishing (Silve Eanksian Medal)
Memart. B, S. Willians \& Sons, Upper Holloway, Londan, exibited a plant of Bouvardia Silver King. The leavea are ariegated with white margins, and the flowern are coral-red. From Mr. Antrony Wa'erer, Knap Hill Nureery, Wokine ame a plant from 20 to 30 feet high, of Quercus americana nea splendens, a very effectire variety of the Scarlet Oak.

\section*{CHBYSANTHEMUMS}

Novelties in Chrysanthemums were numerous. Awards of Merit were made to Dorothy Gibson, a glorious true reflered flower, of a deep shade of yellow, from Mr. R. OwEw, Maiden bead; and Rose Owen, an incurved flower of the Violet Tomlin type, hut paler in colour, the prevailing tint being palo cinlish-rose, the petals, and especially those in the centre, ipped with the petais, and especially those Lann, another pped with white (R. OWEN). No Florence Laul, an bede, inely-formed reflezed flower, of a slear bright mulberry and shaped well ; and Mrs Briscoe Ironside, a loply full, and shaped well; and Mrs. Briscoe Ironside, a lomen flower, of a delicate creamy or silvery-blush tint, with lemom centre-a large, full, incurved Japanese, in the way of Editio
 Briscoe.Ironside, Burgees Hill. To Fdith Tabor, a large, very broad-petalled soft yellow Japanese, with drooping. NOT fureto, and highly effective in a stand, from Mr. R. C. Narge browich. To Mrs. Charles Blick, another a citrom Lite, broad-petalled, incurving Japanese, having a itants exire-vigorous grower, repreaented by a dozec plang single stoms, of quite dwarf growth, and each carryig \({ }^{2}\) huge flower, exhibited by Mr. C. BiIcK, The Gardens, 2 , Werren, Eayes; to Beanty of Teignmonth, probably the whis magnificent variety of a Japanese Chryeanthemam sow meason, the surface of the broad incurving florets wig erimano-amaranth, with silvery reverse; the florets not wh much incurved to hide the brithant surlace colonring, wh large and full. Last year, this was thought to be lile Dulb of Yori, but this season it has proved that it is quite dirtinet in character; from Mr. J. AGATE, nurseryman, Eavnt, To Fellow Source d'Or, a pure pale yellow aport from this ald and favourite decorative variety, the sport promising the as popular for decorstive and market purposes as the from Mesars. H. Cannell \& Sons. To incurved, Conser and
bright: to single flowered Annie Holden, a pleasing sulphur sport fruct the well-known Mary Andeson; to Queen of the Buffs, bripht buff, with a slight pale crimson surface to the petals, and very thin side edgings of the same,
novel and distinct; and to Mra. E. G. Whittle, very delicate sulphur-white, having large, broed, incurving florete, some what loose at the base, a variety which gained an a ward for its colour more than for its other merits, all from Mr. H.J. Joves. Lewisham; and to Mons. Chinoo de Leeche, a very large and massive flower, having broad florets, the surface tinted and striped with cerise, deepening to pale purpie on
the basal florets, the reverse doep gold, a very fine and distinct the basal florets, the reverse deep gord, a very fine an
Japanese, from Mr. W. WELLS, Earlawood, Redbill.
Other notable new flowers, were Maggie Shea, yellow, with a slight white tip to the florets; snd Miss Ellie Teichmann white, with sulphur centre, both very promising, from Mr. C. E. SHEA, Foots Cray, Charles Young, deep, rose, with alight shading of violet; and \(A d a F\) Fulford, an incurved variety, buff. the reverse gold, with slight lines of purple on some of the older florets, both from Mr. R. OWEN. Mr. J. F. MCLEOD Dover Holse, Roehampton, had Japanese Belle Jeune, clear yellow variety of mediuma size, like Lad Chirine
From Mr. W. E. Tinx, Havant, came Duke of Connaught From Mir. W. E. THDY, Havant, came Duke of Connaught,
a large yellow incurved Japanese, the bagal petals some what droping, in the way of W. H. Lincoln; Mr. T. G Foster, deep yellow, of a fine depth of colour; and Zelandia, a large, broad-petalled, fully incurred Japanese, of the Queen type. Mr. Rrckwood, Fulwell Park, Twickenham, had Japanese Fulwell Park, the florets white and yellow. with slight stripes of pale purple. From Mr. GEO. STEVENS, Putney, came incurved Madame F, Minstral, pale rosy-purple, and golden centre. Mr. H. J. Jones had incurved James Murray, very like Princess of Wales; and D. B. Crane, inMurray, very like Princess of Wales; and D. B. Crane, incurved, not in such good character as when shown at the Boyal
Aquarium Mr. H. Cannell had plants of Kentish White, a Aquarium Mr. H. CANNELL had plants of Kentish White, a
very promising incurving white Japanese, with pale yellow centre, dwarf in growth, and highly promising.
Mesirs. Veitch \& Sons, Exotic Nurseries, Chelsea, had a fine and attractive group of plants, some of them bearing remarkably good flowers, the most noticeable being Louise D Black, Warrior, Palenza, Louise, Madame Calvat, Mutual Friend, M. George Biron, G. W. Childs, and other leading varieties (Silver Flora Medal).

\section*{Orchid Oommittee}

Present : Harry J. Veitch, Esq., in the chair; and Mesara. Jas. O’Brien (Secretary), T. B. Haywood, Sydney Courtanld, W. Cobb, T. Statter, T. W. Bond, E. Hill, H J. Chapman, J. Gabriel, H. Bullantine, and H. M. Pollett.
Chough fewer groupe than there wasa dice show of Orchids though fewer groups than usual were staged. Messrs. Jss.
Vkuci \(\&\) Soxs, Rogal Exotic Nursery, King's Roadochelsen, Ventri \& Sons, Royal Exotic Nursery, King's Road "Ohelsen, Lælio-Cattleya \(\times\) Euphrosyne (C. Warscewiczii ơ, L. pumila Dayana \&), was a plant of dwarf habit, with a very large and well-formed flower, with sepals and petals of a light rose colour and narrow yellowish margins, and bright purple lip, with a lilac tip and primrose-yellow dise (Award of Merit) Cattleya \(\times\) Eurydice (Acklandiæ J́, labiata of ), a very charming novelty, with the colours of Cattleya amethystoglossa, and the size and somewhat the form of C. Walkeriana nobilior. The very dwarf plant bore a wax like flower, with ovate sepals and petals of a pinkish-lavender hue, bearing a few parple apots;
the lip being rich crimson on the broad, flat, front lobe, and tips of the side lobes; the base blush-white, and the disc yellow. Their beantiful Cattleya \(\times\) Mantinii, two varie ties of which were now eshibited, as on the former occa Mesors. Vetober 15), now secured a First-class Certificate. Messrs. Vertcri also showed Lellio-Cattleya \(\times\) Statteriana, hybrid Cypripediumg.
Mons Georges Mavtin, Château de Bel Air, Olivet Loiret, France, after whom the Cattleya Mantinii (C. Dowian \(\times\) Bowringiana) was named, sent a prand plant of it, with a noble inflorescence of rich rosy-purple flowers, with orange centre and maroon-crimson front to the lip. It was said to differ from the original, and in consequence was named C. \(>\) Mantinii colorata, but seeing that the three which Messrs Verrcer exhibited also differed from it and from each otherone of Messrs. Vertcris being brighter in colour than Mr. MuNTIN's-it was decided to award the Certificate as to the type, and as such it received a First-Class Cerfificate.
Sir Tretor Lawrence, Bart., Buyford, Dorking (gr., Mr W. H. White), showed Houlletia tigrina, an old but ex tremely rare species with decumbent inflorescence of large flowers, which were French-white freckled with rose; the lip ivory-white with crimson spots. A most singular and hand some species (Botanical Certificate)
Thos. Statter, Leq., Stand Hall, Whitefield, Mancheste (gr., Mr. R. Johnson), shcwed a very interesting group of rare Orchid blooms, for which a Silver Flora Medal was awarded The most remarkable was Cattleya aurea Johnsoniana, with ligut bufif eepals and petals, marbled with rosy-lilac, and a very bearitiful and ample dark velvety crimson lip with gold veining. It comes nearest to the fine C. aurea marmorat Which received a First-class Certificate from the Right Hon. Lord Rothschild's collection; and Mr. Statrers's received a imilar award. In the group also were six other grand forms of Cattleya aures, some very handsome C. labiata, including C. 1. excelsior, with flowers prettily flaked with purple Cypripedium \(\times\) Edwardii, and the pallid, green-tinted C. Spicerianam viremcens.
Masars. HuGH Low \& Co., Clapton, were also awarded a Silver Flora Medal for very bright and effective'group

Orchids, in which fine varieties of Cattlega labiata figured conspicuously. The remarlably handsome Cypripedium nsigne, var Laura Kimball, with clear yellow unspotted flowers bearing a broud band of pure white on the dossal sepal, was also shown, and received an Award of Merit. It is of the

Sanderas class, and differs in having the yellow of a darker tint and in some otber respects. Also in Mesars. Luw's
group were Cypripedium Charlesworthii unicolor, a small but uniformly rose-tinted form; a very distinct form of Oncidium hematochilum, O. ornithorhynchum album, O. varicosum. and rarious other showy species.
Messrs. F. SANDER be Co. St. Albans, staged a group of Orchids, in which were the finest and richest-coloured forms of Cattlega labiat yet exbibited, the handsome rose-pink and cream-white Calanthe \(\times\) Florence, and the pretty C. \(\times\) Clive, Catasetum Christyanum, Laelii pumila marginatm, a Ane pan of the stately white Habenaria Suzannee, some pretty specimens of Sophronitis grandifiors, Zygopetalum criaitum, Cattleyas, Cypripediums, \&ec.
R. I. Meagures, Eaq., Cambridge Lodge, Camberwell (EP., Mr. H. J. Cbapman), exhibited Cypripedium Allenianum

\section*{ariety (Award of Merit). Catelega labata, K. I. Meaqurey} variety, a most charming pure white Hower with delicate ping veining on the lip, and which had been previously C Arthurianum, C. \(\times\) Chas. Bichman, O. insigne Cambridme Lodge var., C. \(\times\) Leeanum superbum, Cattleya \(\times\) Hardyana, ac. A Silver Bankgian Medal was awarded.
Fred Hardy, Esq. Tyntesfeld, Ashton-on-Mersey (gr. Ir. T. Stafford), showed Cattleya Bowringiana gigantea, a very finely-coloured and extraordinarily-large form (A ward of Merit); the handsome white Cattleya labiaむa Cuoksonir, Cattleya \(\times\) Harrisii (Leopoldii \(\times\) Mendeli), a very beautiful soft rose, war-like flower; and a rery fine lot of cut spikes of some rose, war-iike fower; and a rery fine lot of cut spikes of some Medal).
Geo. C. Raphaki, Esq., Castle Bill, Englefeld Green (gr, Mr. Adame), showed Cattleya labiata, Raphael's var, with brilliantly-coloured flowers of fine form; Vanda courules, Raphael's var. : a fine spire of almost circular, pale blue flowers, netted with violet, and with violet lip; and the rare and pretty Zygopetalum Burkei.
Messrs. W. L. LEWLS \& Co., Southgate, showed a small collection of Orcbid blooms, in which were Cattleya labiata in several good examples, Oncidium varicosum, O. protextum, Cypripedium insigue Maulei, dic. Mons. Tri'fail r, Pat des hantiers, Versailles. sent Ladio-Cattleja \(\times\) Andreana (bicolor
\(:\) elegans), of siender growth, and resembing a small L. -C . elegans), of siender growth, and resembling a small L.C. egans, but with ovate, slighty recurved purple front lobe to
he lip. RegiNald YouNa, Esq.. Sefton Park, Liverpool (gr.,
Mr. Poyntz), sent Cattleya labiata Youngianum, Cgpripedium \(\times\) Clotho (politum \(\times\) Bozallii atratann), and Leplia promin. Waluer C. Clazk, Esqo. Sefton Park, Liverpoal, sent
arieties of Cypripedina insigne and Cypripedium \(\times\) (villomam varieties of Cypripedinm insigne and Cypripedium \(\times\) (villosum \(\times\) Leeanum superbum). Whlemerorce Beyant, Fsq.e Stoke
Park, Slough (gro. Mr. D. Kemp), sent a grand infloresceace of Cattlega labiata, Stoke Park variety, very fine in colour.

\section*{Fruit Committee.}

Present: P. Crowley, Erq., in the chair; and Mears. S. T. Wright, J. Caeal, J. H. Veitch, H. Pearaon, W. Pupe, A. H. Pearnon, G. Bunyard, J. Wright, A. Dean, C. Herrin, W. Baten, G. T. Miles, F. Q Lave, H. Baldernon, G. Reynolds, R. Fife, and J. Hadson.
An interesting exhibit of Vine leaves, naturally tinted with autumn colours, and displayed on atretched white canvas, was reade by Messrs. D. \& W. Buchanat, Forth Vineyards, Kippen, who grow them for commercial purposes ; very fine Grapes, \(G \cdot 09\) Colmar and Alnwick Seedling; also clustera of fruits of Tomato, Forth Vineyard Selected, were exhibited. The produce had been grown by the use of Thomson's Vine and Plant Manure (Silver Banksian Medal).
An interesting and very commendable collection of vegetables was made by Mrs. Wingereld, Ampthill (gr., Mr. Gourds, Marrows, and two Pumplins, Leels, Carrots, Tomatoe, Celery, Cauliflowers, Cabbages, Onions, \&c., were were included, and some purple Kohl Rabi, \&cc. (Silver-Gilt Knightian Medal).
Mr. Geo. Wythes, gr. to Earl Pescy, Syon House, Brentford, exhibited a collection of salads in twenty-four varieties.
We noticed the Turnip-rooted Celery wao included, besides a We noticed the Turnip-rooted Celery wao included, besides a bunch of the same shown meparately (Silver Baakish Medai),
Mr. Bobt. Fenv, Sulhampatead, showed a dish of Cox's Orange Pippin Apple, and some fruit of his green culinary Apple, called Pay-the-Rent; the latter is a medium-aized fruit, of good appearance,
Some fruits of a good-looking litchen Apple (Continental) gamed Sanpareil were exhibited by Mr. ANTYONY WATERER, gamed Sanepareil will Nuseries, Woking.
Seedling Melons were again shown by Mrs. Wincifield. Ampthill (gr.. Mr. Empson). One of these, Anthony's Favourite, a scarlet-fleshed variety, of very good Havour, received an sward of Merit. Mr. Ower Thomas, Royal Gardens, Windoor, sant a Iruit of a pretty Melon named Frogmore, which the Committee desired to aee again; and fruits of his white fieshed Melon. The Ducheas.
The only collection of fruts on this occasion was one chibited by Mr WxTREs, embracing seventy-sis varieties of Apples and Pears, very commendable in quality, at grown ev near the Metropolis (Silver Banksian Medal)

Thzee large dishes of large excellently-coloured fruits of iascoigne's Scarlet Seedling Apple from Mr. Chiss. E. Sues Foots Cray, Kent, appropriacaly received the Cultural Commeadation of the Committec.
Messra. Sutron
Messrs. Sutton \& Sons, of Reading, and Meamer. H, CANNELL \&oNs, Swanley, ataged harge and mot interebtiog collections of Potatos. The former had representatives of their own raising, incluong mome vary hamisumse need as ulso of the yuaint Frrapple mection. Mever, Caname \& Sons sent anybody's varietien they may grow for trade purposes, under ordiuary field culture, the whited trade purposes, under ordiuary field cultura, the white beautiful Reading colleotioa, comprining virty dishem, there beautiful Reading colleotioa, oomprining birty diches, there Were Ringleador, fleld-grown Ashleu, Early Border, Migoum
Bonum, Triumph, Windwor Castle, Matchless, Sutton's 1 . and others that are now so universally identifed with the name of Sutton. All them ammples w ere very clean and hand some. The Fir-apple eection, so named becanee of the mimi Larity of portione of the tuber to Firrcoves, haviog myrind of deep eyen, and get 00 nice for elicing and frying, were repere sented by the red, white, ad purple-flushel varieties. The The species were represented by tubers of Solsaum Magha, small-coloured; also of s. tuberosum. red round, but yet larger than were the white round tubers of \(s\). etuberosum This is probably but a white form of tuberosum, an at seem to differ chiefly in colour. This collection whas awarded Silver Knightian Medul.
Messrs. Cannell \& Soss' collection, if showing less hand some tubers, at least allowod the varietios to show average
character under field production thoroughly. The white flat round Cometo-Stay, way in fine form, and handsome. This seems to he a first-rate variety. Otbers of kiduey form were Cannell's Victory, Future Fame, The Canon, Cbancellor, Col. Long, Lily White, Soowdrop, Mancrop. Welfurd Park, and National : and of rounds, Satisfaction, Progress, Schoolmaster Paul s White Round, Prodigious. Best AII, M.P.. Abundance c. Of coloured rounds, The Dean, Vicar of Laleham, Purple Perfection, Pink Perfection, Lord Tennyson, Reading Ruseet, Ec. ; and of coloured hidoeys, Early Vermont, Mr. Breese Edgate Purple, Field Marshal (very red), Blue Giant. Prize taker, \&c. The collection romprised 100 rarieties, and was 0 exceeding interest, well meriting the Silver Medal awarded. Mr. Ronfirt FFNn, Sulhampatead, showed a box in partitions, in which were smsll lubers of Solanum Fendleri, of American origia; also tubers, the product of a cross between the specien and a white seedling, Antegomot. Then other and larger tubers, the result of a second cross hetween the product Theue tubers grown a second year will doubtless give a fine and apparently a handsome sample. A cordial Vote of Thanks II as a warded by the committee.

\section*{Lecture on Potatos.}

\section*{Is the afternoon was read a lecture on Potatos, by Mr. As} W. Button of Rending, whose remarke were rendered doubly Kowton had piepred fram photographs takea apecill for this lecture The first portion of Mr. Suttos' lectore for devoted to a reriew of the historical date conpected with the devoted to a rer of the hisorical dati comected with th tuber, which inclinded the reading of extracts from Gerarde and from Loudon's Exeyclopandia, and other muthovities. Mr Sutton declared that every section of the subject of the Potato had been dealt with on previous occasions, and his task wae very difficultome, for but little that wamew coald be mid, oi ther in regard to the botanical characteristics of Solunaman, or the calture of the Potato iteolf.
Then there was the isorasingly-important queation ol disease prevention, which can be trested from at lent \({ }^{\text {w }}\) w chef startiog pointa, either wilh the object of simplifying and extending the French system of apraying the crops when growing with the Bordeaux Miature known as "Bouillie Bordelaise," or of dusting the plant with the same compousd in the form of powder, and thereby aaving from diseave the sorts of Potatos already largely grown; or, on the other hand of introducing to the public not ce varieties obtained by crose fertilisation which may have proved themselves ablo to with stand the ravages of the dreaded fungos.
"On all topics, except the last," said Mr. Sutton, "so much has been said already, that I felt I could not hope to interest yorl With any additional remarks of my own; but as I have lon been identified with the raising and introduction of seedlin
Potatos. I thought it passibie that Im:ght succeed in popu larising this branch of stuly, especially if aided by th lantern views which Mesars. Newton have made for me from photographs taken specislig for this lecture.'
 and berries. he evidontly thinking the Potimto one of the move important and valusble plante of those 80 ably duscribed it the Potato plant on.p. 927 of his work were next given, which, no doubt, represeat the Potato as grown in his garden. These Were followed by the rea
Mr. Suttoe went on to
houghts and comparicone "Thie pictnre' ugmeste mary thoughts a od comparisonf. How littld ow the fae, handsome, and even tubers we see at th:, in
"Then also the use 0 : the Potato in Geparde's time by the wealthy few as a hury of questionable value or utility, how dieferent to the present enormone consumption in all civilinth part of the world

Whil? Gerarde's Potato is before us, it may be interesting
amounted to \(1,232,055\) acres [this year it io \(1,282,768\) acres, vide agricultural returne in Times of October 29], averafing 3 tons 15 cwt .2 qre. 20 lb . per aore, of a total of \(4,662,147\) tons grown in the United Kingdom, besides a large quantity imported (for 1893 the figares ware 14.140 tons). Reckoning the entire population as \(37,880,764\), this would allow about 2 cwt . 1 qr .24 lb . for every man, woman, and child per annum, but these figuree male no allowanoe for the quantity annually consumed in feeding cattle, which is alwayo considerable, and consumed in feedrig catio, to the market value of Potatos.
"My friend Monsieur H. de Vilmorin, has very lindly ment me the figures for France, and he tells me that the acreage ander cultivation is annually about \(3,342,500\), and the total yield for the whole of France is \(10,100,000\) tons, or making allowance for the quantity exported and imported, the figures allowance for the quantity erportad in England, Potatos are grown almost entirely for use as a vegetable, Monsieur Grown almost entirely Vilmorin estimates that about two-fifths or \(4,000,000\) tons are anmually used in France in the manufacture of starch and annuall.

I have also learned from my friend Herr Fritz Benary, of Erfurt, who forwards me vary valuable statistica, that the total acreage devoted to Potatos in the German Enpire in 1893 was \(7.502,165\) acres, and the total quantity of Potatos hosrested amounted to \(32,277,851\) tons, or allowing for the quantities imported and exported, \(32,376,497\) tone, which was the total quantity available.

\section*{inprovement and Deterhoration.}

I think that it would be interesting now to trace the steps by which the great improvement in the caltivated forms of the Potato has been brought about. And here it is necessary to refer to a' misundertand Seed' are often supposed to be one and the same thing. Seed Potatoe may be either a crop of Potatoe grown with the special object of producing tubers to plant again grownollowing year, or elee, as is frequently the case, they are merely the smaller tubera, which, being too small for market, are therefore kept back for planting. Now, it is well-known that Potatos are merely the enlargement of underground stems, shortened and thickened, in which starch is stored up in greater or less proportion according to the several varieties. Like other stems, the tubere produce buds or eyes, and are capsble of re-development by fresh shoots at the axil of the leaves, which in the case of \(u\)
"Although they may be kept through the winter, and planted sgain the next apring, they are in no respect anything more or lees than portions of the old plant which had died down and apparently ceased to exist the provions autumn consequently, while through the almost unlimited prolongatios of the lifs of a single Potato-plant weaknees and dete rioration often set in, there is practically no room for improving the original type by any selection of tabers. This anyone can prove by planting a tuber which may from some cause or other be mig-shapen, and uniform type as the other Potatos which were growing on the same plant. The only modification of this rule I am acquainted with, is in the cases where all the tubers of one plant show a uniform divergence in character, eithor for better or worse. When this is 30 , it is possible that, by the selection of all or any of theoe tubers, a alightly different Potato might reenll, as in the case of some types of the Ashleaf section which are dwarfer and more compact, or else taller and coarser-growing then others. Outaide the Ashleaf clase, however, I know of no such instances.

In reference to this point, Monsieur Vilmorin mentions he does not consider a really first-class seedling Potato is liable to degenerate so quickly as is generally supposed. If degeneration sets in soon after ite introduction, it merely proves that the rariety is one which never ought to have been brought to public notice.
" Potato seed, on the other hand, is totally distinct in every way, being the seeds formed in the Potato berries which some, though not all, varieties of Potatos bear so freely.
Views were then shown of some of the berries in their natural condition, and also cut to show the arrangement of the seeds within the berries " 4 berry," said Mr. Sutton, "may coatain from 100 to 300 eceds-the average of five borries examined being 232 :-and as the parent plant appears able to control but ulightly the distinctive charecter of it progeny, and as all the difierent soedlings from one Potato boery may produce plants differing from one another, not only the great powaibilities form in colour alno, it is here we find the better seedlingo. Even if no crov-fertiliontion of flowerm wae attempted, great improvement migh's be made by the selection of the most promising seedlings daring the first few years of "their existence; but where judicious crossing of the best known varietiesjis undertalren, we can in a great measure combine in some of the resulting seedlings the merits of both male and female parent, although, evan then, no two seedlings trom the same berry may be exactly alike.

\section*{Seid and Segotres.}

Anyone attempting to raie seedling Potaton must have abondanee of patience. Like many other wpecies which are not habitually multiplied by the seed, the Potato has a remarkable teadeney to revort to the wild form. It may be necomy to caltivule 100 cr even 1000 seedlings before finding at which ic relly worthy of a plece amongat the better
arietiesiruedy exinting. Xonna, Vimorin axys that in France Whe niniag of reed Potation has been proceeded with in as some hoid, inore ryutrantic methed hase bon followed, mentioning
ing disease, with little tendency to develop haulm, are the characters we generally seel. Unfortanately, he says, they are not alwa ya able to profit in France by progress realised in England, because the French have a marked preference for Potatos with yellow flesh; whereas in England, for many years past, there has been a preference for whitefosned Potatos. On thish mouse had the honour of introducing in 1876, after having enjoyed a brief popularity in the Paris markets, has been almost abandoned as a table varisty on account of the flesh being too pale in colour. Mons. Vilmorin remarks that in Germany considerable attention has been given to raising seed Potatos, out more particularly with the object of raising varieties which are specially adapted for the production of alcohol and starch.
The next three views represented the pistil, after the anthers had been removed, to prevent self-fartilisation, then e arrangement of anthers around the stigmas, both closed and expanded, and then the inner surface of three anthers and

Species and Varieties.
A Potato Seedling at 'the end of the second year, and another at end of the fourth year, were next illustrated, after which Mr. Sutton had a picture of Solanum etaberosum, but remarked that "he had not noticed anything in this Potato either denoting that it was deserving of cultivation on its own account, or for crossing with the ordinary Solanum tuberosum, which it seems so nearly to resemble."
The "Paps Amarills" was then shown. This is much grown in Pert, but Mr. Sutton after carefully growing the variety for eight y ears, is of opinion that it is of no use in this country.
Representations were then given of a variety found growing South Africa, which after being grown at Reading for seven years, Mr. Sutton describes as distinct from all Potatos, and as being free from disease until 1894, when it suffered
badly. Another one found growing in the Rocky Mountains, almost the counterpart of the large white Fir-apple Potato very much diseased in 1894, and the red and white Fir-apple varieties.

Other intereating representations followed, inc luding the Black Congo Potato, the dense purple of which renders it useful for ornamental cookery.
Another variety, grown much in Norway. It has been considered valuable for the supply of so-called new Potatos throughout the year. The tubers are seldom larger than an Almond, and by lifting the crop before it is quite ripe, the close texture peculiar to new Potatos is retained indefinitely.
Slides 22, 23, and 24 represented plants taken from Mesars. Suttons' trial-grounds. Owing to an injury to the stem, the plants were unable to produce tubers below the surface of the ground, and did their atmost to make up for this failure by a vigorous attempt at tuberation from the axils of the leaves,
Other pictures represented a spray of Solanum nigruma
and berries of the Bitter-sweet (Solanum dulcemara), and the deadly Nightehade (Atropa Belladonna). "There were 700 Solsnums," said Mr. Sutton, "of which only six kinds were tuberous-bearing.
Slide 28 repreeented flowere and foliage of Solanum Maglia, of which Mr. Sutton proceeded to say:-"Chiefly on account of the fact thes the dreeded Potato fungus produces most havoc in damp, wet seasons, it has been very much hoped by Lord Catheart that if hybrid seedlings could be obtained between the Solanum Maglia (whose habit was that of lowlying marshy places near the cosst of the Islands of the Chonus Archipelago) and the Solanum tuberosum, which most writers consider a native of the higher slopes of the Andes, a new race of Potatos might be secured which would resist disease ; but here I may say, in parenthesis, it is not at all impossible that Solanum tuberosum may ihave had its origin as a littoral plant rather than a species of elevated or mountainous repions, which thought is streagthened by the fact that Potatos flourish so amazingly on the warp-lands of our eastern sasboard. Although many huadred flowers of Solanum Maglia were artificially fertilised with pollen from cultivated varioties only five were succeseful, resulting in five seed-berries, and out of these seed-berries only two seedlings were secured, and only ane of these showed any promise whatever, the second requiring to be grown under glass to prevent its dying away.
"glide 29 showe the tabers of Solanum Maglia, and 1 regret to say that last year, in 1894, the crop was almost entirely deotroyed by disente out-of-doora, some indoors boing froe.
- glide 20 shows the hybrid seedling just referred to, which, although a vast improvement on the Solanum Maglia, is very far behind the ordinary cultivatod Potato both in appearance, crop, and qualities. This seedling has now been grown for eight years, and in 1891 the crop was slightly diseased: proiously it had almost escaped.
"The next few slides illustrate some of the highest types of seedling Potatos which my house has had the honour of introducing to the public, the crosser having been made in the majority of cases by the late Mr. Clarke, so well-known as the raiser of Satton's Magnum Bonum Potato, and two by Mr. Robert Fenn, one of the oldest and best authorities living on the artificial erossing of Potatoo. Thoy are \(\Delta 1\) Early Regent, Trinnaph, Satisfaction, Satisfaction Potato a lifted, Magnum Bonum, Flourball. I must not conclude without relerring to the of the Boaillie Bopdelaice an application for preveating Potato disense.

\section*{Dinease and sprayine.}

Slide No. 42 shows two plote of Eutton's Maguma Bonum Potato growing wide by side during the past nesson, that on the left hand wide having been aprayed three timee and that on the
right hand not having been aprayod at all. It will be soon thit the reault was very marked, enabling the plants where eppayed to continue in growth some time after the unsprayed portion had died down, and the weighte of the two "plots when lifted were as follows : - The sprayed, 3 cwt .1 qr .23 lb ., and the an sprayed 3 cmt .1 qr .4 lb . Strange to say, the quantity of 4 lb . The question really remains wheth both ploth vix, weight par acre would compensate the grower for the someminh laborions task of spraying his crop three times during the growing period
In a most elaborate series of experiments I have cooductal this year in conjunction with Prof. Gilchrist of the Uniremith Extension College, Reading, we have found that in the lat and second early varieties there is no advantage from sprying, as these had finished their growth before any disease coold attack the plants, and the dressing did not lengthem appors ciably the period of growth. Undoubtedly in some sorts wheh are peculiarly liable to diseass, especially when arown in gardens, a judicious application of the Bouillie Berdeline
would secure even in bad disease years a crop of somnd Ponta,

\section*{[Grafting the Tomato and Potato。}

Mr. Sutton then reforred to sora interesting eapperimentes (1) a bunch of Tomato flowers; (2), bunch of Tomito flow and berries greatly resembling Potato flowers and berries: (3), a photo of the Tomato plant by Gerarde in 1507. Thil wis

Mr. Sutton then procoeded:-"slide 46 reproseats our Tomato and Potato graft. One tuber was planted in mod pot on March 22, and when about 4 to 5 inches high tho plant was cut off half an inch from the level of the soil, and a gnith of a Tomato plant introduced on May 8. The result of this has been that the Potato, nourished by the Tomnto plant sboveground, has produced a crop of Potatos in the pot, w wround hase produced a fairly good crop of Tomatos, nourinhed by the Potato roots in the pot.

Slide 47 is the same process reversed. The Tomato plant was cut off half an inch above the surface, and the Potato grat introduced. The Tomato roots have not, of course, produced Potatos, bat the Potato plant above ground produced one tray of flowers and seven berries ; and in order to extend this somo what interesting experiment, the Tomato flowers have bow fertilised with Potato pollen, and the Potato flowers with Tomato pollen for farther experiment next year. These plo tographs were taken on August 14; but on looking at the plants recently, it was found that two of the Potatos groming on Tomato stalke appeared suddenly to be aware of the foot that, although producing flowers and berries, they had not yot produced tubere, and it being 'never too late to mend, they have, as you will see in alides 43 and 49, produced taben in the axils of the leaves and stems.

\section*{Some discassion afterwards took place.}

\section*{NATIONAL CHRYSANTHEMUM.}

Octorse 23. -The Floral Committee of the abovt Society met at the Royal Aquariam on the abore date, under the preaidency of Mr. Thoman Beran, a conaiderable number of noveltien being ataged So plentifal, indeed, have new productions become and so mach alike are many in goneral charactas to varietier already in cultivation, that the Socioy does well to be sparing with certificates, which ar given only to varieties of decided promise aftar their claima are well connidered.
On this occasion First-class Certificatos wrere awardad to Edith Tabor, a highly-promising clear pale yollow Japanew, reflexed like Sunflower, having lonk basal florets, from R. C. Notcott, Ipewich ; to Mrs. Charles Blick, a large pur white, the fiorete narrow, and slightly groored, from Buicr, The Gardens, The Warren, Hayes ; to Dorothy seme the surface of the petals bright reddisb-chestnut, with amber reverse, very attractive and bright in colour; to J. Shrimpton, of a very pleasing orange-amber shade, hers and to there streaked with reddish-crimson-novel and dirin the floots John Seward, ciear medium gellow, large and fal, long and drooping, and somewhat broad; tho thro then were from Mr. Whula M SEw 1 RD, The Firs, Hanwell, the rim of several fine varietio. To Lady Byron, a large whito Ja of considerable subetance, said to have come from ar between Paritan and Mre. Alpheus Hardy, Lom Picinise WeEks, Thrumpston Hall, Derby; to Yompon . Bassoos one of a batch of charming varieties raisod by in colour, fine in shape, small, compact, and very plessing; to aingie, Annie Holden, a sulphar-oloured aport from Mary Andew which is white, and which appears to have al qualities of the latter, from Mesers. H. Carresti \& somb Swanley; to Japaneee, Ethel Addisoz, a broed-p bright rosy violet in coloar, with a silvary
promising; Fmily Spilebary, largs and full Japanese, of excellent form and pure in colour, D. B. Crave, colour deep gold, a flowor of f. In. Ryecroft Nursery, Lowisham; to Japanove, a bold and massive brosd-petallod white loo, Beckert. The Gardens, Aldenhare House,


In Mr. B. IRONSIDE's collection of novelties were Japanese Milano, orange and reddish-cerise, with a golden rovereo, hsving a rare metallio lastre, very promising; and incurved hsving a rare metallio lustre, very promising; and incurved
C stagnola, bronzy chestaut, also very promising. Japanese Csistagnola, bronzy chestnut, also very promising. Japanese
Mons. George Biron, pale chestaut, with ailvery reverse; and Mons. Georze Biron, pale chestnut, with a vilvery reverse; and
Beauty of Teignmouth, an American varisty, vivid vermilioncrimson, with silvery reverse and massive petals, both from Mr. W. J. Goderey, Exmouth, are also very promising.
Japanese tridu of Madford, from Messrs. H. Cannell a Sons, the committee wished to see again; and they al:o had in very fine character Globe d'Or, a new incurred flower, certificated last jear. Japanese Mons. B. Girond and Mons, G. Montigay did not succeed in obtaiaing a wards, though much fancied by som?. Japanese Mdlle. A. de Galbert, a large white, from Mr. H. Shoesmite. Woking; and Japanese O. B. Haywood, from T. B. Haywoon, Esq., Woodhatch, tho committee wished to see again.

October 28.-A meeting of the General Committee wat held at Anderton' Hotel on the above date, Mr. B. Wynne presiding. The Secretary reported the amount of priz8-money awarded at the October how, all of which had been paid; and the awarda of medal by the Arbitration Committee to miacellaneous collections was also approved.
Complainte having been made as to the imperfect lighting of the Royal Aquarium on show days, the Secretary wae instructed to address a strong and urgent remonstrance to the Directors in favour of an earlier lighting-up, and a greater volume of light, members having complained of their inability to satisfactorily examine the flowery during the afternoon. An interim cash statement of a very satiofactory character was made by the Secretary, who also gave an interim Jubilee report of an encouraging character, the Secretary being instracted to issue the prelimiaary schedule of prizes. It was resolved that, following the practice observed in the csse of the Centenary Celebration ia 189), a Bronve Jubilee Medal should be given to every Sosiety in affiliation with the National Chrysanthemum Society during 1890. The Secretary reported that the annual dinner would take place at Anderton"s Hotel on Wednesday, November 27, the President, Bir Edwin Saunders, in the chair. Twenty-five members were elected, including two Fellows, the number who have joined since the beginning of the year being nearly one hundred.

EHIRLEY AND SURROUNDING DISTRICT GARDENERS' AND AMATEURS' MUTUAL IMPROVEMENT ASSOCIATION.
October 25 aND 28.-Two meetinge, held under the euspices of the Hanta County Council, were held on the above dater, Mr. E. Molyneux, of Swannore Park Gardens, addressing each meeting.
The first was held at Highfi eld, Southampton, and the subject was "Hardy Fruit Culture for Cottage Gardens and Allotments." There was a very creditable display of fruit, and the lecture was of a most instructive nature, all the principal points, such as planting, training, grafting, and pruning being fully explained.

The meeting on the 28 th was at Nursling, South ampron, and the "Caltivation of Fraits and Vege table for exhibition, with Hints on Packing for Transit," was the anbject of a very able addrens.
The rarieties of vegetables and fruits most desirable for exkibition, and the character of the specimens moat likely to win prizes, were given. The largest specimens in many cases do not obtain prizes at shows, and the lecturer endeavoured to impress on the minds of his audience that something more than mere size should be aimed at to ensura success. There was quite a show at this meeting of high-class fruit and vegetables, made entirely by the gardeners in the locality, and there was also a good attendance. Hearty votes of thank were accorded Mr. Molyneux at the close of each meeting.

\section*{FRUIT EXHIBITION IN DARLINGTON}

October 24 and 25.-This exhibition, in connection with the Gardeners' Inatitute, was held in the Mechanica' Inatitute, on the above dates. It is seldom that fruit attains sach perfection in Durham and North Yorkshire as it has done this season, and the apecimens exhibited by local growern, both for aize and colour, were ach that might have made the growers in the southern counties envious.
Specimens of such varieties of Apples as Warner's King, Bismarck, and Peasgood's Nonsuch were exhibited up to 18 oz. is weight; while the bright colours of Mère de Ménage, Baumann's Red Reinatte, Reinette du Canads, Scarlet Pearmain, \&c., drew forth exclamations of admairation and wonder from all who taw them, many expressing themselves surprised that such splendid specimens could be grown so far north.
In the Pear section, Pitmaston Duchess figured most promirestly, but there were also some very good specimens of Bergamot d'Esperen, Beurré Diel, Louise Bonne of Jersey. Bergamot d'Esperen, Beurré Diel, Louise Bonné of Jirrey, Darondeau, Catillac. Doyenné du Comice, Beurré Clai

The nureery trade was well represented by Mesers. Kent \& Brydon, Darlington. BaOKirouse sor, York, and T. RIVERS \& Som Sawbrtdgeworth, all of whom staged large collections. and their oxhibite were of a most meritorious character.

The varieties reost noticeable in KruT \& Baypor's collection were, stirling Castle, Collini, Lord Lonnoz (ot excoptionally were, Stirling Castle, Collini, Lord Lonnoz (ot exotptionally thoradon, Brownleo's Bumet, and Cox'I Orango Pippin. In Backrouse \&on's, Peaggood's Nonsuch Gromup's Pippin. Rose Hill, Annie Rlizabeth, Lady Henniker, and Wintar Queening. In Rivers a Son's. Wadhurst Pippin Pitmaston Pine, Mero de Ménage, and Nelson Codlio Apples. The other exhibitors were Mp. WM. Smrra, North Rise, Darlington; Me. J. McIndoe, Hattoa Hall Gardens; Mr Temple, gro to 8ir David Dale, Weat Lodge. Darlington Mr. Hy. Joheson, Elm Ridge (gr., Mr W C Barron), Dar Mington; Mr. Mackar, Darlington: Mr. Doualas, gro, Bollington; Mr. Mackay, Darlington: Mr. Douglas, gr., Bol-
dersby Park: Mr. J. Hornby, Healington Hall Gardens ; Mr. dersby Park: Mr. J. Hornby, Howingtor Hall Gardene; Mp.
Hamain, Rounton Grange Gardene; Mr. J. McImtybr. Haxagan, Rounton Grange Gardens; Mr. Jo Mcimtyem. Mallabar. Hummerdenote; Mp. Hy. Wamd, Brinkbura Gardens: Mr. R. Simpson, Pilmore Hall Gardeas: Mr. J. Lee, Clifion Castle Gardens; Mr. Peel, Bloydon-on-Tyne and Mr. Surfield. Stoke Prior Taere were alno nome apecialties in regetables exhibite t, most noticenble being a Kueller, gr. to the Marguls of Ripux, Studiey Royal, Ripon.
The exhibition was visited by a great number of people, and the Secretary (Mr. J. G. Wilkinson) and Committee are to be complimented on the euccess which attended their offorts in getting together such a large and interesting display.

[The torme "acoumulated temperature" indicatee the aggregate amount, as well af the duration, of degrees of
temperaturo above or below \(47^{\circ}\) Fahr. for the pariod named: and this combined result is expreseed in Daynamed: and thit combined result is expresoed in Day-degrees-a may-degree aignirying on or degree for an invervely proportional number of hours.]


The distriots indicated by aumber in the frat columa are the tollowing: -
, Scotland, N. Principal Wheat-producing Districts1, Scotland, E.; 2, England, F.R. B, Rngland, E. Princepal Grasing, \$co District, S-8, Sootland, W. if England, X.W. Mraland, S. Mannel Inlanda

\section*{THR PABT WEEK}

THef following summary record of the weather throughout British Iolands for the wreok ending October 28, is furnished trom the Meteorological Office:-
-The weather was fine and dry generally at the commence ment of the week, but an unsettied condition 500 n et in with frequent showers of rain, hail, sleet, or now in the with frequent horthent, and this extended later on to almost all parts of the Kingdom. The showers were, however, heavier and the Kinguom. in the northern and western districts than else more frequent in the latter part of the week thunder and where. During theng were expanced in various parts of the country.
lightning were exparienced in various parts of the cime of year
"The temporaturs was nnusually low for the time of year. ' Bogland, E. and Ireland, N.." to \(8^{\circ}\) is "Englend, N.W. and Irelend, \(S_{\text {. }}\). The highest of the maxima occurred on the 20th
 and England, *iE. The absolute minims were recorded and England, No the of the period, ad were extrumely lew for the
time of your. They ranged from \(18^{\circ}\) in "England, B.W: (at Laadovery), \(21^{\circ}\) in "Eogland, Ben' and \(2 x^{\circ}\) in the "Midined Counties, Bootland, W. and Irelasd. 8." to \(29^{\circ}\) is 'soothead, N. and E.. \({ }^{\circ}\) and to \(37^{\circ}\) in the "Channel Iolandn.' The loweet seadings reported from station with a chermoracter exposed on the grase were \(13^{\circ}\) at Worksop (both on Thurseley and Saturdeg). \(16^{\circ}\) at Loughborough, \(18^{\circ}\) et Cillorwx, and \(90^{\circ}\) at Oxford and Cullompton.

The rainfal varied very greatly ie difterent perts of the Kiogdom, but whe, on the whole, in exove of the mest over 'England and Scotlend, E.,' and juat about the normal fleowhere. The fall consinted mainly of hail, aleet, and anow in the western and northern dintrict.

The bright sumshise was more prevalent in the weat and mouth-weat, and in 'Eagland, N.E." than elnewhere. The percontage of the posible duration ranged frow is in "Irelund, \(\mathrm{E}_{\text {ep }}\) " 4 in tho "Ohannel Ielands, 43 í "Ireland, Xow and 41 is 'Eagland, Eop to 25 in the 'Midland Coueties.' ead 93 in ' Englaud, N.W

Paize Ebacy.-The prize offered by the Royal Horticultaral Society for the beat ensay on "The Commercial Aspect of Hardy Fruit Growing in Great Britain," were presented at the meeting on Tuesday lat, by Sir A. Abbuthnot, in the anavoidable absenca of Sir Taevor Lawremen. At the jadgen were anable to decide between tro of the paperssent in, the Council have given \(£ 15\), inatead of \(£ 10\), and this bas been divided equally between Mr. Lewis Castle and Mr. S. T. Waight, gardener at Glewaton Cuart, Herefordehire. Dr. Hoag hat also presented a large Silver Medal to both enayiats.

\section*{Markets}

COVENT GARDEN, October 31.


\section*{Puatt in Pots-Avemas Wholisuli Phucis.}

\begin{tabular}{|c|c|c|}
\hline \multicolumn{3}{|l|}{Vegftables.-average Wrolesale Prices.} \\
\hline s.d. s.d & & s.do. 3.d. \\
\hline Canliflowers, p. doz. 3 0-3 6 & Tomatos, Home- & \\
\hline Mushrooms, per 1b, 10-16 & grown, p.doz.1b.: & \\
\hline Cucumbers, per doz. 26-3 0 & - Smooth " & 50-60 \\
\hline Onions, Dutch, per & - ordinary \({ }^{\text {a }}\) & 36-46 \\
\hline  & - Guernsey ., & 30-36 \\
\hline Por & Tos. & \\
\hline
\end{tabular}

\section*{SEEDS.}

Lonpoz: October 30.-Meesrs. John Shaw \& Sone, Seed Merchants, of Great Maze Pond, Borough, London, S.E., report to-day's market thinly attended, with but little businees doing. Rather more attention latterly been given to Clover seeds, and the impression widely prevails that the lowest prices possible have been reached. Winter Tares are slow this week. There is no change in Rye. New Haricot Beans on the spot, being in strong demand, and almost unattainable, have again adranced several shillings per qr. Blue Peas also sell freely at rising quotations. The new Hemp Peas also sell freely at rising quotations. The new Hemp Canary seed is steady. There is no alteration in either Canary seed is steady
Mustard or Rape seed.

\section*{FRUITS AND VEGETABLES.}

Boroual : Oct. 29.-Quotations:-Cabbages, 2s. \(3 d\). to 3s. 9d. per tally; Carrots and Turnips, 2s. to 2s. 6d. par dozen bundles ; Apples. 3s. to 6s. per bushel ; Pears, 3s. to 7s. do. : Chestnuts, \(6 s\). to 8 s . per balket ; Walnuts, \(4 s .6 d\) o to 8 s . per bag.
Spitalfields: Oct. 29. - Quotations: - Savoys, 5s. to 7s. per tally; Collards, 3s. to 4s. do.; Greens, bunch, 2s. to 2s. 6d, per dozen bunches; Cauliflowers, 68, to 8s. per tally: Sprouts, 2s. to 2 s . \(6 d\). per half-bushel; Turnips, 1 s .9 d . to 2s. per bag; Carrots, 1s. \(6 d\). to 1s. 9d. do. ; Beets, 1s. 3d. to 18. ©d. per bushel ; Parsaips, 7d. to \(9 d\). per score ; Onions, 3 s. to 4s. per cwt. ; Apples, Cos's Orange Pippin, 28. \(\mathrm{bd}^{2}\). to 3s. per bushel ; Northern Greenings, 2s.6d. to 3s. do.

Ntratyord, Oct.' 29.-There has been an improvement generally during the week, consequent upon the change in the weather. Oabbages, 2s. to 5s. per tally; Savoys, 2 s . to 6 s, do. ; Greens, 1s. 3d. to 2s. per bag; do., 1s. 8d. to 3s. per dozen bunches; Oauliflowers, 18 . to 2 s . 3 d . per dozen ; do., 5s. to 10s. per tally; Scotch Kale, 6d. to \(9 d\), per bushel ; Vegetable Marrows, 1s. 6d. to 2 s .66 d . per tally; Beans, Scarlet, 1s. to 1 s . \(6 d\). per sieve ; do., 2 s . to 2 s .9 d . per bag; Beet-root, js. \(6 d\). to 38. per dozen bundles; celery, \(6 d\). to \(1 s\). per roll; Horse-radish, 1s. 1d. to 1s. 3d. per bundle; Parsley, 1 s . to 1s.6d. per dozen bunches; Turnips, 1s. to 2s. per dozen bunches; do., 3)s. to 40s. per ton'; Carrots, household, 25s. to 32s. per ton ; do, cattle-feeding, 203. to 25s. per ton ; Parsnips, 8d. to 1s. per score; Mangels, 12s. to 15s. per ton; Swedes, 17s. to 20s. per ton; Oaions, Ghent, 2s.9d. to 3s. per bag ; Datch do., 3s. to 3s. 3d. per bag ; Bordeaux Port., 4s. 6d. to 58. 6d. per case; Apples, English, cookers, 2s. 6d. to 3s. 6d. per bushel; do., dessert, 3s. to 5 s. per bushel; Rears, English, 28. to 5s. per bushel ; Tomatos, English, 3s. to 3s. 6d. per doz. 1 b 。 ; Cucumbers, framed, 1s. to 2s. per dozen.
Yarrivedon: Oct. 31.-Quotations:-Apples, Wellingtons 3s. 3d. per bushel ; Blenheims, 4s. do.; Kiag Pippin, 4s. do. Suffield, 48. 8d, do.; Graversteins, 11s. 8d. per tab; Cos' Oraoge Pippin, 4s. 6 d . per bashel ; Pears, California, 10 s .6 d to 14s. por case; Walnuts, 4s. per bag; Chestnuts, 13s. per bag: Eaglish Grapes, 1s. per 1b.; Tomatos, 6s. per 12 lb . Prunes and Plums, 2s. 6d. per half bushel; Sloes, 2s. 6d. pe pack; Collards, 3s. 6d. per tally ; Leeks, 2s. per doz.; Carrots, 3s. per dozen bunches; Turnips, 3s. do.; Cauliflowers, 2 s per dozen; Spinach, 2s. per bushel; Beetroot, 2s. per bushel Paranips, 1s. 3 d . per score; Artichokes, 28.6 d . per halt-buahel Colery, 1s. per roll; Onions, Eaglioh, is par bag.

\section*{POTATOS.}

Honovar: Ontober 29.-Price3 ranged from 35s. to 80. per ton.

SPITALFIKLDA: October 29.-Quotations: -Sutton's Abund ance, 55s. to 70 s.; Reading Giants, 45s. to 65s. ; Main Crops 50s. to 70 s . ; Imperators, 50 s . to 70 s ; Fidler's Colossal, 50

Graatmord, Oct. 29.-Quotations:-Bruces, dark soil, 40 s to \(455_{s}\); do.s light 40 s . to 608. . Reading Giants, 45 s , to 65 s. Snowdrops, 50s, to 70s.; Hebrons, 55s. to \(70 \mathrm{~s}_{\mathrm{o}}\); \$utton's Abandance, 501, to 70s. per ton,

Farranamom: Oct. 31.-Quotations: Snowdrops, 80s. to 100s.; Hebrons, 70s. to 90s. ; Regente, 60s. to 70s.; Puritans


\section*{HAX.}
the prinaipal -The followion are the aperages of the prions at Clover, prima, 80s. to 100 s , do durian the plat wook:-



\section*{CORN.}

Averages. - Official statement of the average prices of Brtish Corn, imperial measure (qr.), for the weel ending October 28, and for the corre sponding week in last year:-1895 Wheat, 25s. 5d.; Barley, 25s. 4d.; Oats, 13s. 7d. 1894 : Wheat, 17s. 7d. ; Barley, 23s. 8d.; Oats, 13s. 3d.

\section*{ENQUIRY.}

He that questioneth much shall learn much."-Biodr.
Will some of our Danish correspondents kindly inform "Hibernia" of the meaning of the word Traateen, as given to an Apple; a new variety, said to be the finest in existence, with this name, having been introduced to the gardens of the Prince of Wales at Sandringham in 1893.

* Owing to the large increass in our circulation, we are under the necessity of going to press some hours earlier. Our as early in the week as possible. Communications should reach us not later than Wednesday.
Cattleya labiata Blooms: W. Bull. One of the richent coloured varieties ever seen, and the flower of more than fair size. The other exhibits an attempt on the part of the flower to produce two extra lips out of what are really the sepals.
Erratum: The large Pear from "F. H.," inadvertently named Bachess d'Angou éne in this column last week, hould read Pirmaston Duchess. Frut Culture in South Africa: H. F. T. You should write to Mr. Cooke, Ravenscourt, Bexley, Kent, who has information to impart.
Insects: \(F_{0}\) A. The grabe appear to be those of the nmall cockchafer or Fernchafer (Rhizotrogas solatitialis). In the case of the lawas, you might try copious applications of diluted gas-water. As to the Begonia beds, dig ap and carefully hand pick and deatroy all grubs and affected tabers; gas-water might then be applied, or the earth be removed, and replaced by fresh. \(R . M_{c} L\)-W. \(R_{\text {a }}\) The insecte are the grabs of one of the boring beetles, which are often imported with Orchids. If the parte affected by them are cat off and burnt, they are eavily got rid of
Mushrooms Turning Brown when Quitr Small \(F^{F}\). B. This may happen when the soil and bed are deficient in moisture, as will often occur when excessive heating has taken place. The "spawn" will sometimes be injured by the great heat, and vegetated but weakly. Loas of heat in the bed will arrest development in the Mashrooms. Without seeing the bed, and knowing more of the treatment afforded, we are anable to say what is the exact cause
- Plants, Fruits, Exc., to blit Namrd.-The applications to nume flowers, and especially fruit, are so numerous at this season as severely to tax our resources. They entail \(n\) expenditure of time, labour, and money, of which our readsrs have no ider. We are always willing to oblign our correspondents as far as wec wh but the editing of the \(G\) trdenors Chronicls is our business, to which everything else must give way. that not more than six specimens rain be dealt osith at the If more are semt, it hoond bs araceful act on the at a time. more are sent, is soou a ba aracegul act on the part of the Orphas Fund. Correspondents sending plants or frwits to be named, or asking questions demanding tims and ressaroh for thetr solution, must not expoot to obtath an answer to thein enquirtes in the current week. Speoimens should be good ones, arefully packed and numbered. Leavss only, or Florists varie. ties cannot, as a rule, be named.
Names of Fruits: Houston. 1, Eater Bearré; 2, Vicar of Winkfield; 3, Pasae Colmar; 4, Beurié d'Aremberg.-M. P. R. 1. Cox's Orange Pippin; 2, Small' Admirable; 3, Beurré de Capiaumont other Peare over-ripe.-Camans. 1. Gloa Morcian; 2, not known-worthiess.-Charles J. W. Your Apple in known as the Black Crab.-H. F. 1. Beurré Rance: 2. Vicar of Winkield: 3, Pasee Colmar. - \(B, R, S, 1\), not known-a wild variety 2. Crimson; 3, Pott's Seedling;-W. Hunt. Charle ville. 1, Cox's Orange Pippin; 2, Cox's Pomona; 3, not known; 4, Waraer's King; 5, Ribston Pippin; 6. Yorkohire Greening.-Kent \& Brydon. Your Apple is inferior to handreds of others in cultivation,-Rev. C. O. Pearn, 1, Uredale's St. Germains: 2, Verulam, both excellent atowing

Names of Plants: Correspondents not anowered in this issue are requested to consult the next number. Mells Park 1, Uratæ 5 as crus galli var. apleadens 2. Ora'zjas puactata; 3, Pgrus pranifolia; 4 Cratægas coccinea var. macracantha; 5, Cratagus coccinea. - Gurteen. Prunas Padun (Burd Cherry). \(-S .1\), Gulacrites tomentosa; 2, Lathyras Cif. menam; 3. Sclerolepis varticillata; 4 Hamamelin virginica, very untimely in flower,-E. J. Pajicam capillare.-J. D. 1, Nerine coraci major: \(2, \mathrm{~N}\). sarniensis ; 3 , the large form of N . hamulis, or a hybrid of it; 4, N. ronea.-W. C. R. I Fankia obcordata; 2, Calycanthua procoz, W. F. M. 1, Dendrobium album (aqueum); Trichouma mavia; 3, Ealophia megistophylla, 4 ; Adiantam caspidatum; 5, Adiantum maer phyllum.-J. D. Next week, - \(R_{0}, B_{i}, L_{1} \& \mathcal{S}_{0} 1_{\text {, }}\) Kadsura japonica variegata; 2, Siphocamppla bicolor; 3, Mentha pr., end when in bloom; 4, Saintpaulia ionantha.
Neapolitan Violets in Flowbr by Chbimas: H. May. It cannot be done, except under exceptionally favourable circumstances, and by a apecial treatment of the young plants. Natarally, thin variety is later in flowering than Marie Loaine, The Czar, and Victoria. Very little warmth is required by Violets, a day temperature of \(45^{\circ}\) to \(55^{\circ}\) or \(60^{\circ}\) by sunhest, and \(45^{\circ}\) as the minimam by night suffice all through the winter. The plants are impatient of a close atmosphere, and require air whenever it can be safely afforded.
Pelargoniums and Fuchsias: Flora. The firt-named may be kept in a sunny window, and afforded wator only when the soil geta almost dust-dry. Do not prane till Febraary, nor use saucers under the pots. The Fachaias may be kept in the cellar if it be dryish, or similar place, and be cut back or cut right down in March. Cattinga of Pelargoniami would root now, and you may aucceed with Fachais if the cuttinge are placed in sandy soil covered with a glaes.
Raspberries in Fruit: \(W\), Jones. By no ment anusual before the frost came.
Rhus succedanea: Munches. A amall Japanese tree with amooth branches and leaves, the latter boing pinnate, and consisting of fifteen shining gretl leaflet. So far as we know of, it has no other name outaide of Japan.
Rose Leaf Caterpillat: W.P. For clearing bubber in the R one-house, Richard's XL might be tried instead of the time wasted in hand picking. Oat of doors you could use quassia water, soapsuds, and tobacco water-the lacter not made at home from good tobacco, but purchased at the tobacco mana facturers, which is much stronger and conequently economical. The proportion may be one uf the juice to twelve of soapy water. Thew washes do not kill, bat they make th
Roae unpalatable to the caterpiliar.
Tomato: Market Gardener. Not burning from bed glass, but a fangus disease-Cladosporium lyco peraici. Cat oft and barn all affected fraits, and apply the Bordeaux Mizture. See Gardenorr Chronicle for recipe for making the ame in "Aaswers to Correspondents" on Jaly 27, 1895.
Worishop axd Factory Acts: A. T. B. Send to Mesarm. Eyre \& Spottiswoode, Queen's Printert East Harding S.reet, London, E C., for a copy o the Act. It will cost but a triting anm.

Commurications Beceived.-D. L. M. -Geo. Hunt (next


 J. J. H.-G. H. - J. M. P. - N. and Jo-G. D. - J. . .

CONTINUED INCREASE in the CIRCULATION OF TH

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 faction of announcing that the circulation of the "Comident Chronicle" has, since the reduction in the prite of the papor
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2Ath Octobpr. 1895

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\hline Lycoris aurea & 645 & Strawberries, ripe \\
\hline Maxpio Moth. the & 883 & Tomatos \\
\hline Melon, the Lady. & 354 & Villamilia oetand \\
\hline Melville Castle and Gar- & 543 & Fiolet perfume Week's work \\
\hline Morenlo Ch & 655 & Flower Garden, the \\
\hline Narsery Note & & Fruits under glass \\
\hline Bunyard. Geo. \& Co., & & Hardy fruit parden \\
\hline Maidstone & 848 & Kithen garden, the \\
\hline Paris, noten from & 558 & Plants under gla \\
\hline
\end{tabular} People's Park. Devonport
Petrsea volubilis albe Planting fruit trees, and Planting iruit treem, and Platyclinis glumace Potatos, Sharpe's Viotor and Vale of Cleveland Primula Cashmerian 8cotland
Societies-
Brighton and \$ussex Crystal Palace Havant ChryaantheHighgate and "Ointrict Chrysantaemur Jersey Royal AgricultuNational Auricnla and Primula National Carmation National Chryenthe mum ."̈rquay Oreners".. Watford Chrgeanthe645 Strawberries, ripe Villamilla ootandre Wiolet perfume Flower Garden, the Hardy fruit gasid 648 Kitahen garden, th

\section*{ILLUBTRATION8.}

Honlletia tigrina, .eith double fiower
ycoris aurea
Melon, the Lady
Platyclinis glumacea. (Supplement.)

\section*{NOTICE TO ADVERTISERS.}

In consequence of the alteration of the hour of going to Press, consequent on the large increase in the circulation, it is imperative that all Copy for Advertisements should be recived \(\bar{B} \overline{ }\) FIRST POST THURSDAY MORNING at the latest.

\section*{Chrysaathemums}

H.CANNELL AND SONS, whose Collection io well known to be the largest, completest, best kepto and most interating. is in splendid bloom, a number of entirily aim shapee and colours of great promise, and of the 8wanley savitod to nee our magnificent house, 180 feet long by 25 feet wido-a glow of colour

\author{
SWANLEY, KENT.
}

CORDON APPLES and PEARS.-WellPEACHES And NECTARINES. - Atandard and DWWrfrained fruiting trees. LISTS free.

WILL TAYLER. Oaborn Nursery, Hampton, Middlesex.
QMILAX, MYHSIPHYLLUM ASPARA6. per 100 free on reil-WILLIAM WHITELEY, The Nurseries, Hillingdon Heath, Uxbridge.
\(\mathrm{D}^{\text {OUBLE}}\) DAFFoDiLS, - Van Sion and 1000 ; 1s. odp. per 100. Smixed, grood flowering Bulbs, 15z, per 100 - W. \& A. SHEPPARD, Growers, Hounslow, Middleses.
For sale, to make room, aralia 8IRBOLDI, in 48.月. Per 1000,210 .
Cumberland Pary Nureeriea, Willeaden Junction, Londos. HOR SALE, Six fine Specimens, AGAVE LARKMAN, Hampton, Middlesex.

\section*{Now is the time to plant peonies,}

Co Chrysanthemum Butbitore
CIDY'S Patent CUP and TUBE is the Beat. Send for Clrcular and Sample, free \(18.3 d\). W. E.TIDY, Brockhampton Nurseries, Havant.

DALMS, CORYPHAS and LATANIAS from Polargonium Cuttinss. or Bedding Geraniume.
NEW SPINELESS GOOSEBERRIES. 1 Coloured Plnte. Prioe List, Hietory, Copy of Testimonials \&c., from W. RU8HEORTE, Numery Mount. Leeds;
from the sole proprietorm, LETELLIER \& SON, Caen. France.

A SPARAGUS, for Forcing.-Five years old 1 spleadid roots. 12s. \(8 d\). per 100 ; extra fine, 6 years old 15s. per 100. On rail, cash With or
J. J. CLARK. Market Gerdeaer, Goldstone, Brighton.

Plant Now
BARR'S BEAUTIEUL CHINESE DOUBLE PFONIES. of lovely colours and delicate parfome. one each of twelve splendid varieties to name, strong planta, for 10 s .0 d . Carriage paid on receipt of remittance.
Full descriptive LIaT of Chineso Double Pre nies, Ohinese single Proniea, and European Single Pronies (all beantiful), on application.
BARE AND gON, 12, King Street. Covent Garden, Londoa.
TAMES DOUGLAS, F.R.H.S., begs to e) mnounce that his CATALOGUE for Autumn, 3885 , and Spring, 1898, 18 ready. All the New and Certificated Varietice in course of distribntion. Inspection reapectiully invited

JAMES DOUGLAS, Edenside, Great Bookham, Surreg. HOR ORCHIDS of every desoription at apply to- W. L. LEWIS ATD CO. Aouthgatie, Leodon, M. PAICR LIST free.
W ANTED, HERBACEOUS CALCEOPEED LABDIAS, in 60 and 48 -sizod pota. Stnte nrice.-JORN
WVANTED, SIX GARDENLAS net with \(V\) flower buds, in exchange for thong healthy Eucharis WTANTED, some superior FOREST TREES 10,000 BREOH, 3 feet; 2000 BIRCE, 3 feet; 1000 1000 YEW, 1 foct. A rood price given for young etuff, recently triveplanted, with all-round good roots. Samples, w th pricen marled, to Grataley Station, L. \& B.W. Ry. and addres-STEPENS, M,P., Cholderton, neer Balisbary.

I INDEN'S ORCHIDS.-SALES by AUCTION, in London, are held on the First and Third Thurndar in ach Month, st Mr. J. O. 8TEVEN8 Great Booms. 38, Kin treet, Covent Garden
BARR'S WINTER \& SPRING FLOWERS. B 8ee Illuatrations, back page. Gard. Chrow., Sept. 7, 1893 GENERAL BULB CATALOGUR. free on application. ENGLISH DAFEODIL CATALOGUE. free on application. CATALOGUK of HARDY HERBACEOUS PRERNNIALS. BARR AND 80 N, 12, King 8 treet, Oovent Gandez. Londer.
TECUMA SMITHII. - The fiuest new flowerinf plant, as easily managed as abrytanthemum. It produce in tutumn large heads of brillunt red and yellow
blowoms. New seed of all seed moen.

DLANT NOW for SPRING FLOWERING. - Hyacinths, Tulips, Crocusea, Snowdrops, Aconites, ATALOQUE, No 45 ) free on application

DACKSUNS, Bulb Growert and Importers, CHESTER
MARNA TIONS.-Self colours a speoial feature. U Malmaisone, beautiful soft pink var, cood etuff, reedy por flowering. Pote, 12s. to 18 s . P

CEAS. A. YOUNG, Fional Nursery, Weat Darby.
CTRAWBERRY PLANTs.-Laxton's Noble 5 and othorm. 2s. 6d. per 100. Carriape paid; caeh with

CARNATIONS. - Extr atrong layer of Ketton Rose, Mra, Muir, and many other leading variaticu. VIOLETS, fine clumpa of Mario Louise, Onmre de Beazz, Queen Victoria, and others,- For liste and prices, apply.
GRO. DRABBLE, Ketton Hall Garden, stamtond.
ROSES for SALE.-320 W. A. Kiohardson, II 300 Gloire de Dijon 30 Maréchal Niel. 35s. par luo or 8. per doz. 20,000 Manetti \&cocks, 2\%, per 1000. Cash with

DOT VINES.-Strong well-grown Fruiting Hambro, Musoat and

Musaat, and Alicante. Apply, -
MANAGRE, Pollardin Nureerr. Chenhet.
PECLAL CHEAP OFFER. - ENGLISH OAK, extra fine, 18 to 15 feot. stout, straight, wellchaped, and splendid roote; \(\triangle B E, 5\) to 9 feet; BEECEB, 10 to 12 and 15 feet. aqual to Oaks: HAZRL, extri fine, 2 to 3 and 1 feet; PRIVET OVAL. all sizes, 1 to \(\frac{f}{}\) feet, extra cut back epplication; BEQONIAS, new trade list free.

To Nursarymen, seed Merchante, and Florists.
BLACKBURN AND SONS are offaring U. ABOEANGEL MATH lower than any other mouse fe the Trade; aleo Petersburg Mats and Mat Bigs, Raffis Fibre, Tobacco Paper, and Shading.

4 and 5, Worm Price free.
ISHURST COMPUUND, used since 1859 for Bed Spider, Mildew, Thripe. Greenfly, and other blight; 2 ornces to the gallon of soft water; 4 to 16 ounces an from cake, for \(A\) merican blight, and as an cmulito whan paration is ued. Bae outlived many preparations intended to papertede it. Bosen. 18., 88, and 10864 .
(ISHURSTINE keep: Boots dry and soft on
 (Limited), London.

TORTICULTURAL BONES.-Pare Bonew in \(\}\), . l-inch, and meal, specially prepared. For E. 8. WILES AND LIWIS, Bone Worki, St. Albans.
T. WEEKS \& CO. Hortioultaral Bailders Government, Mminalty Dept, War Dept Royal Hort H. M. Royal Botaide Boc., Parke and Public Buildings, Patentee of the Daples Toright Trubular Boilapa Kine'a Roaki, Chatentee of Telegraph Addrees."Hortulanu, Lajdon." Telephone, No.872e.

\section*{SALES BY AUCTION．} DUTCH BULBS—DUTCH BULBS．
gales nearly evary day，in Large and Small Lots，to suit all Buyers

MR．J．C．STEVENS will SELL by AUC－ TION，at his Great Rooms，38，King Street，Covent Garden，nearly every day，at half－part \(120^{\circ}\) Clock，first－class cons gnments of Choice HYACINTES，TULIPS，CROC Fell known farms in Holland，in the firest possible condition． On viem morning of Sale，and Catalogues had．

\section*{WEDNESDAY NEXT．}

\section*{GREAT SALE OF ROSES， FRUIT TREES，PLANTS，BULBS，\＆c．}

Pgramid and Dwarf－trained Fruit Trees，Including APPLEs，PEARs，PLUMS，CHERBIES，NECTARINES EACHES，\＆ce of choice named sorts．Aleo white Red and Black CURRANTS，GOOSRBERRIES．
200 Cholce named Standard Roses，from a leading English Nursery． \(5 \cdot 0\) standard，Hall－standard，Dwarr and known eorts，in splendid crider，from a celebrated Prize Grower in Germany
A Surplus Stocis of well－grown Ornamental Shrubs， FRUIT TREES，\＆c．，from an Einglish Nursery
Saveral huadred bsautifully－grown small Decorative shRubs，for la or Outdoor Cutivation，AZALEA MOLLSE，a variety of LILIUMS，CLEM4TIS，and othar large Assortment of PLANTS from a Dutch Grower LILLUM HARRISII from Bermuda，FREESIA REFRACTA alba．
10,000 Bist Barlia Lily of the Valley Crowns，just received direct．
A Consigament of Azalea indica and mollts，well furnished wich Flower－bads．A pariets of DBAC．ENAS， and various small DROORATIVR PLAN from Glient．
A SPECIIL COLLECTION of EXPRA FINE HYACINTGB， Glass and Pot Culture．Great variety of TULPS， OROCUSEZ，rare NABCISSUS，SNOWDRUP3，\＆

MR．J．C．STEVENS will SELL the above by AUCIION，at his Great Rooma，38，King Street，Corent orden．W．O．，on WEDNE3DAY NEXT，November 13，it hall put \(120^{\prime}\) Ciock precisely．

On view moraing of Sile，and Catalogues had．

\section*{Tharsday Next}

By order of Messar．W．L．Lewis \＆Co．，Southgate，N． Grind I MPORTED OR 3HIDS，including Cattleya Schileriana cidiums，Souhronitis，Cattleyas，\＆c．o，in variety，and in grand condition．
A：so a choice salection of CYPRIPEDIUM SEEDLINGS， together with a good selection of well－grown Catluey Mendelii in sheath，C．Triat which with Co．labiata in Hower：also Oncidiums，Cspripediums，Dendrobiums，\＆ce． in great variety．

\(\mathrm{M}^{\mathrm{I}}\)R．J．C．STEVENS will SELL the above，by \(\triangle\) UCTION，at his Great Rooms， 38 ，Kin Ptreet，Corant Clarden，W．O．oa THUR

On view morning of Sale，and Ontalogues had．

\section*{Sormandy，near Guildford，Surrey．}

The NORMANDY MANOR EATATE，edjoining the

\section*{Wanborough Station}

\(\mathrm{M}^{\mathrm{F}}\)ESSRS．PROTHEROE AND MORALS（in conjuaction with MESSRS．MUMFORD AND BOND will secl by Auction，at the White Lion hotel，Guildford． on SATURDAY NEXT，Nov． 18 ，at \(30^{\circ}\) Clock，the remaining portion of the above VALUABLE ESTATE，in seetions，as OT

> Rich Herby Meadow
> Pasture Land
> Fertile Arable Land
> Fruit Farm
> Valuable Building
> Productive Farm

\({ }^{4}\) ．\({ }^{5}\) 品
 Dwelling Houses，Glass and other Errect， and Orehard Land
13．Cloggate Farm
15．Fruit and Bail解 principal Ions in onildord of Meents the place of Bale and Aylesbury；Mesers．PYKE ATD PARROTr Boticicitont Lincoln＇Ina Fields，W．C．；Memra，MUMFORD AMD BOND Auctioneers and Survegors，Brill，Bucke，and Thame，Oxon： ani of Memrs．PROTHEROK AND MORRIS，Auotionerran Land Agents， 67 end 68，Chempoide，Loadon，E \(\mathbf{C}\) ．

\section*{TUESDAY NEXT}

By Order of Mrsshs．JAS．VEITCH \＆SONS， Chelsra．

AN IMPORTATION OF

\section*{cATTLEYA WARSEEWICZII （GIGAS），}

\section*{the free－flowering variety，}

Messrs．protheroe and morris will include the above in their ORCHID SALE on TUESDAY NEXT，November 12， at half－past \(120^{\prime}\) Clock．

On view morning of Sale，and Catalogues had

\section*{IO0，000 FRUIT TREES．}

MESSRS．PROTHEROE and MORRIS have received instructions from Mr ．W． Horne，Perry Hill，Cliffe，Rochester，to prepare another Sale of－

\section*{100,000 FRUIT TREES}
of all kinds，for WEDNESDAY，November 27 ， 1895．Further particulars will appear．

\section*{Farnham，surrey．}

Highly Attractive and Extensive SALE of NURSERI STOCK． M ESSRS．PROTHEROE AND MORRIS are instructed by Mr．S．Bide to SELL by AUCTION，with隹 he Home Nurseriese of this Nutsery having expire MONDAY November 18，and FOUR FOLLOW TNG DAYU，at \(120^{\circ} \mathrm{Clock}\) precisely each day，about 30,00 ，R EODODENDRON PONTI－ CUM，If to 4 feet，fine bushy plants，remartably well set with flower buds：40，000 FRUIT TREES，incluaing 6，000 2－year a pples，a wonderfully fiae lot，grown on old hopland；many housands of other Fruit Trees； 10 OME STAMAI TREES con
 siatiog of thousands of Spruce．Austrian and other Fiss．Larch Aich as ortment，plante 1 in speoimen buders half－a－mile lovg． rich as ortment，plation for romoval，and also many thousand of Evergreen，Conifere and Deciduois Sbrub3．
May be viewed any day prior to the Sale．Catalogues may be had of Mr．S．Bide at the Alma Nursories．Farnham，surrey London．E．O．

\section*{DUTCH BULBS．}

\section*{GREAT UNRESERVED SALES．}

MESSRS．protheroe and Morris will GRLL by AUCTION at their Ceatral mele Rooms，of
 CROCUS，MABOISBUS，and other BULBS from Holiand，lotted to suit the Trade and Private Buyers．
DROPS，\＆e．
On view morning of Sale，and Catalogues had．

\section*{90，000 JAPANESE LILIES．}

Immense Conagament of 28,000 LILIUM AUBATUM，44，000 LILIUM LONGIFLOBUM， 17,000 LILIUM SPECIOSUM， ALBUM，BUBRUM，KBAMEBI，and MRLPOMRNE，and others．－Preliminary notior．
MESSRS．PROTHEROE AND MORRIS 1 respectiolly announce that they have received the Bills of Lading for the above，conaigned to thera for absolute tiled．And Yoars．P．M．will in the meantime be glad to roceive applications for Catalogues．The whole of the Bulbs will be offered on ene day．

MESSRS．PROTHEROE AND MORRIS will sELC by AuOTION at their Central cale and 63，Cheapside，London，E．C．，as follows，at \(120^{\circ}\) Clook each day：
MONDAY NEXT，November 11．－Seventy－iwo Azila indica， 80 A．mollis， 50 Camellias，Palms，and Bugonis Balb from Belgium
27，500 LILY OF THE VALLEY CROWNS，received dirut 20，000 MIXED SPANISH IRIS
100 Dwarf Roses，Carnations and Picotees，Amaryllis equastis 70 lots Stove and Greenhouse Plants，Eaglish and Cumpliae krown Lilies，American Pearl Tuberoses，
TEURSDAY NEXT，November 14．－Azaleas，Palm，Dm cænas，\＆C．，from Belqiam ；Hardy Yerennials and other Plut and Bulbs，Eoglish－grown Lilies， 300 Dwarf Roses， 50 Joud Stove and Greenhouse Plants， 50 clumaps Helleborus nifer．
and 188,000 seeds of Phoenix reclinata．

> On view morning of Sale, and Catalogues had.

Tuesday Next．－Direct Consignments 100 Lots ONCIDIU M PAPILIO MAJUS． 220 Lexila purpurata．
\({ }_{225}{ }^{2}\) EPIDENDRUM ATRO－PURPUREUM．
300 EPCASTE SPECTES
200 PLANA ALBA
ODONTOGLOSSUM ERAMERI

IIESSRS．PROTHEROE AND MORRIS will SRLL the above by AUCTION at their Central Slal Rooms， 67 and 68 ，Cheapside，London，E． On view morning of Sale，and Catalogues hal．

\section*{Friday Next，November \(15,1895\).}

\section*{GREAT SALE OF ORCEIDS}

IIESSRS．PROTHEROE and MORRIS havg received instructions from MESSRS．F．SANDER \＆\(C 0\) ． St．Albans，to SELL by AUCTION，at their Central Auction
Rooms， 67 and 68 ，Cheapside．London，E．C．，or FRIDAY NEX Norember 15，at half－past \(120^{\circ}\) Clock：
over 1000 Gband planta OF
SANDER＇S MONTANA OATTLEYAA
from beyond Santayuni

Collec＇ed in the entirely new district of Monte Angelos，zon cire serct for the first time
See DRIED FLOW ERS on day of Sale．Typee of Sanderim Sanderge，gigas，imperialis，chrysotora，Hardyana，whito giga Sanderæ，gigas，
Owenianua，
a snow－white gigas variety is included（see lot 20 la ）
This Sanderian typo of Cattleya is the moot gorgeous of 4 the nenus，unapproached and unapproachable．

In addition to the foregoing Grand Cattli yas，we shal
NEW WHITE ANGULOA．provisionally named，Angula
aibs magnar，probably the wide \(A\) ．\(\quad\) mbly laree ad
are in fine condich，
carry abundance of old flower－spikes．A
NEW BLUE BOLLEA Flower，of a geatian bluo，of the stre
of small baucers－moststrining．Tho A grand
EW ONCIDHM DIUHROMO ，Recies，blossoms bente on
large branching gpices．The
NEW CCE LOGYNE BALTOURIANA，projucing long elegnt spike of cinnamon，orange－and－white flowers．The NEW ACINECA COLOSSA，bearing largo pendent witu， often 2 feet long，of huge purple blosecams．The NEW ANE JTOCHILUS BANDERIANUS，Kranzlia．PM，

Kranzliu says，They are the most brill I have ever seen．＇
phal fenopis Varikty，type of P．Grandiflora，and toot
growing with Pisoner Yab．－The very finest type． DRNDPOBLUM DENATELORUM TYPE having the coam DENDROBLUM DENSIFLORUM TYPE，having
terittic bulbz of the magnificent D．Schrodere．
ENDROBIUM NOBILE．－A type from 4 Ssam，iffel the first time．
the first time．HARRISONIANOM．－The snow white Gacsolabium．Every part of the flower anow－＊hite， Sacsolabium．Krery par is pea－green．
For full particulars and deecriptions of plants see Cataloges． There will aiso bo included in the Sale volumes Nos． There Will aiso （very rare）．

\section*{ORCHIDS－ORCHIDS}

JOHN OOWAN \＆CO．，Ltd， Are at present Sellink，by Private Treaty two lare sian Private Collections，which they have purchased， \(\begin{gathered}\text { and } \\ \text { dit }\end{gathered}\) also a very large and fiae General stock or osriptive and Pricod Inspection is very earnestly tiavited．Descriptive comipiny CATALOGUES post－free of application to the Comp
THE VINEXARD and NURSERIES， GARSTON，near LIVERPOOL． WANTED TO RENT，SMALL NURSERY解 Street，Strand，W．C．
FOR SALE，a mall valuable long reenhouses，well atocked；two Vineries， Plant－housee，five－roomed Dottage．Low Grout Glase． elghty－aiz yarit to expire． Tooting，Surrey

The Gardeners＇Royal Orphan Fund．

THE EIGHTH ELECTION of CHILDREN to the benefit of this Fund．consisting of an allowance of per week（subject to the conditions stated in Rule XIII．），
ill take place in FEBR（TARY NEXT，at＂Anderton＇s Hotes，＂Fleet Street，London，E．C．All applications must be made on a printed form，copies of which may be had，gratis， of the Hon．Secretary，or of any of the Local Secretaries． Such form must be correctiy filled up，duly signed， turned to thes office not later than Friday，December 6．
Royal Gardeners＇Orphan Fund，Chiswick，W．

\section*{Channel Isiands}

\(\Gamma^{0}\)be SOLD or LET，with immediate possen－ nion，in the most fertile part of Joruey，extensive LAND，with well－stocked FRUIT TREES．Good DWRLLING－ HOUSE．The houses are heatod by now powerful boilers，and the Vines healthy and in full bearing．Inezhaustible water supoly．－For full particulars，apply，OWNER，Advertiser隼偶，Leicestar

NURSERY，SEED，and FLORIST BUSI－ NE8S．－Genuine，established many years；good town （omall），Midland counties；good neighbourhood and conneo－
tion；splendid seed trade．Good shop and house ；best tion，splendid seed trade．Good shop and house best
 Prants，Trees，shruhs，shop Fixtures，sood Drawers，stocin in NORSEKYY，Gardeners，Chronicle Office，41，Wellington Street．8trand，London，W．C．
The Royal Horticultural Establishment，Torquay．

\({ }^{\prime}{ }^{\circ}\)O BE SOLD，as a Going Concern，all that old－established BUSINESS of a NURSERYMAN．for many years carried on by Mr．C．Phillips，at Torquas，at the Royal Horticultural Katablishment．The premises are tho－
roughy and in every way adapted for the businese，and occupy roughly and in every way adapted for the bosines，and oocupy
a magnificent position in Union itreet at the junction of four
of the most important basiness thoroughtares．The businees of the most important business thoroughtares．The businems is the oldest of the kind in Torquay，and in now in tull work－ ing order，ample provision haring been made for the forth－ a mojerate capital this offers an unusually good opportunity for acquiring a first－class businees on moderate terms．
For full particulars，apply to A．J．DAVY，Eatate Agent and suctioneer，Torquay．

FRUIT and GREENGROCERY BUSINESS for SALE，Hastings－Old－established，good family and
 GENUINE FLORIST For DISPOSAL，an fashionabobetional town．Premises and position pecong to none


HASTBOURNE．－For SALE，High－olass If FRUITERER＇s，GREENGROCER＇s，\＆c．，with Small Nursory．Price as going concern，2350．－Particulars from
H．B．，4，Lordahip Terrace，Rothe＇s Road，Dorting，Surrey．

HNTIRE NURSERY STOCK（under Glass） LI TO BE SOLD at ORE，at valuation ；can be geen any
time：leaving neighbourhood，－Apply，W．WILES，Brightwell
Nursery（back of Mitre Hotel），Tooting Gravener，

FOR SALE，GREENGROCER＇S，FRUIT－ ERER＇S，and FLORIST＂s，doing high－class Family Trade EERERS，and FconisTs，doing high－class Family Trade For particulars，apply to－
GREENGROCEEB， 175, Ladbrole Grove，Notting Hill，\(W\) ．
W ATERCRESS BEDS．－TO LET，about one acre，thirty miles from London on Great kastarn
Railway；two minutes walk from station．－Apply by letter， 149，Loughborough Road．Brixton，8．W．
IO W ATERCRESS GROWERS．－Plough Liver Wane，Wimbledon．About 5 acres of Land adjoining th river Wandie，suitable for Watercress beds，T0
Apply to BOLTON \＆CO．， 3 ．Temple Gardeni，E．C．
FORORCHIDS and GARDENERS It to Grow them，apply to SANDER＇s，st，Albans．The finest
H
NRY RIDES，Salrsman，Central Avenue，Dovent Gardon，W．C．
Highest Karlet Prioses．Prompt cash．
The Best Present for a Gardener．
VINES AND VINECULTURE The most coroplete and erhaustive Treatise on Grapes and their Culture ever published．

Third Edition just out．
A．Price BAR．i post free，bs，od，
HARLY PROLIFIC PLUM．－A fine batch ing to quantity．Buyers of \(\operatorname{ALI}\) Givos or \(\operatorname{FRUIT}\) Trice accord－ do well to call or write for estimate．
WILL TAYLER，Osborn Nureery，Hampton，Middlesex．

\section*{Plants shipped to all Parts．}

W ATSON AND SCULL，90，Lower Thames receptien and forwarding of Plants and Botanical Specimens to and from all parts of the World．Bo particular，and have them consigned to our Care，and save Expente and Delay．


ANTHONY WATERER respectifully invites from intending Planters an inspection of the following well－Krown and finely－rooted EVERGREENS
ABIES PUNGENS GLAUCA \(\{\) COLORADO BLUE SPRUOE，
These are＂All semplinge．The plant usaally met with CEDRUS GTLAANTICA，B． \(6.7,8\) to 10 feot．
CEDRÖS GLAUCA． \(4,5,6_{0}\) \％and 8 feet
Cederis lebini， \(\mathrm{B}, 6,7,8\) to 10 fee
GOLDEN CHINRSE JUNIRRE， \(4, B, 6,7\) ，and 8 feot． GOLDEN YEWS，Seedlings，perfect pyramido 4，B，6，and I ft PICEA＂CONCODCOR 8tandards， 6,7 ，and 8 feot．

PINUSAGUSTREACA
pin lak aicto
```

2，4，8，6，to 8 feot

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THiUIOPBIS BOREALIS， 5 to 8 feet．
HOLLIES，GRREN，Common，up to 10 mad 18 feet．
\(\left.\begin{array}{l}\text { HODGINS } \\ \text { LAURIFOLIA }\end{array}\right\}\) up to 10 teet．
MYRTIFOLIA
gilver quern \} to 10 feet．
W ATERER＇s，and many other variegated kinds． 6 to 10 feet
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INGSTON AND SURBITON CHRTSANTHEMUM SOCIETY．
 ANTEEMUMS，TLORAL DEOORAT ONS，FRUITS，VEG－ TABLEE，de．will bo held in the Drill Hall，Kingatoo－on－ Thamee，on TUESDAY and WRDNESDAY，November 12 and 18，1895，when the Soventh Champion Chilleage Vane，value 25 guineas，open to all aubacribers of 213 ．，will be offered for compptition，in addition to 1160 in prizes． Kotries clone Norember 9．Schecuipe，and all Information． of High street，Kingaton－on－Thnwen． Mr．F．J．HAYWARD．

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EIGHTEENTH ANNUAL SHOW，COFA Exchange，Shetfield． R200 in Prizes．Schedales on applicstion Lo
Cemetery Road，Sheffeld．
WM．BOUSLEY．

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EEDS PAXTON SOCIETY＇S CHRYSAN－ The SEVENTH ANNUAL EXHIBITTON The SEVENTH ANNUAL EXHIBITION will be held in the Seoond West York Royal kngineer＇s Drill Hall，Clay Pits Lana． and 20 ，when upwards of \(\mathbf{e 1 7 0}\) will be oftered in prives．
Sohedule of prizes may bo had from JAMPS CAMPBLL，Hon．Sec． The Gardens，Methley Park，Leeds．
TWICKENHAM HORTICULTURAL AND THEANNULATVAGE GARDEN SOCIETY． FRUTT，VEGETABLES，and TABLE DROOR 1 TIONS，wil he held in the Town Hall，Twickenham，on TURSD AY and WEDNESDAY，November 19 and \(20,189 \mathrm{~s}\) 。
Entries muyt bo eent in on or before Tuesday，November 12. from the Hon．Secretary．
Strafford House，Twickenham
EDWARD F．GREEN
Y
ORK Chrysanthemum show
The SIXTRENTG ANNUAL SHOW will be held Nov．20， proportiona for Planta，Cut Flowers，Fruit and Vegetables． Sropedules， k ．，to be had from
Challenge Prize，value eso，added to lat Prize（Ri0）Ior as Cut Bloome．Cup（ \((10)\) and \(\mathbb{E} 1\) cach for Group．

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Will be Held in their Seed Warehouse，

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GOLDEN： 5 in ．tocla ino，st 3 s．to 8 s ，per dozen．Cash with
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\section*{NORMAN DAVIS}
begs to say his preliminary list of chrysanthemums is now ready. This is a carefully-prepared Alphabetical List of the oream of recent introduotions, so far as in commerce, free from sensational and unnecessary long

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Soon as the shows are over I shall prepare a LIST of NOVELTIES for 1896. This List will be a short one, as I am anxious that the set shall be composed of nothing but back row flowers of the choicest description. Several of my purchases have already been shown in public, and reaived unanimous approval. In addition to the beautiful varieties raised by Mr. H. Weeks, of Derby, and two exceptional sterling Novelties from America, \(t\) is with great pleasure that I am able to announce that I have made arrangements with William Seward, Esq.. of Hanwell, to distribate his set of : x magnificent seedlings, which have justly been the admiration of all who have been privileged to see them. The whole of these will form a grand Yibilee Set, worthy of the occasion, and undoubtedly the finest collection of Novelties ever introduced.

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DENDROBIUM DENSIFLORUM TYPE, having the oharacteristic bulbs of D. Schroderae.

\section*{DENDROBIUM NOBILE, \\ A type from Annam. Offer for the first time. \\ PHALENOPSIS VARIETY,}

Type of P.grandiflora.
Found growing with P. Sanderianus. \& O., \& 0.
For full descriptions, see CATALOGUE.

\section*{ON FRIDAY, NOVEMBER 15, at half-past 120 oclook precisely,}

\title{
Messrs. Protheroe \& Morris,
}

Will Offer the above grand New and Choice Orohids, at their
Geutral Auction Rooms, 67 \& 68, Gheapside Lonoon, E.C.


THE

\section*{Gardeners' Clluronidle.}

SATURDAF, NOVEMBER \(\cap, 1895\).
MELVILLE CASTLE.

0NE of the most delightfal excarsions from Edinburgh is that whioh embraces the olassic and oharming vale of the Esk-Roslin, Hawthornden, Melville, Dalkeith, Newbattle, Dalhousie, are so many shrines in what one might oall a hortioultaral pilgrimage. Influenced by the fasoination of lovely grounds and gardens, and held fast by the hospitality of Lord Melville's faotor and general manager, Mr. McKinnon, we devoted the major part of our afternoon's trip to the enjoyment of the besuties of Melville. As soon as you pass within the gate of the noble park, you are struok with the marks of the interest, care, and taste devoted to arboriculture on the part of the owner. His lordship is a keen arboriculturist, as the frequent strips of young plantations, contrasting with the grand stretches of Oak and Beech, testify. For \(1 \frac{1}{2}\) mile the Esk meanders through as oharming a piece of soenery as the eye need desire - meadows intersperaed with magnifioent ornamental Limes, Soottish Elms, Beeches, and Oaks, and flanked by heavily - wooded heights on either side. These Beeches and Oaks are classio, if one may judge from the frequent quotations from Sir Walter Scott, with which our guide enlivens the stroll. Unfortunately, the effects of storms and old age have made themselves apparent in frequent gaps; but these ravages have given scope for the enterprise of both owner and manager, with good effeot in the present, and the hope of great things in the futare. A glanoe over the fields stretching away to the right, and forming the home farm, talls us that Lord Melville is likewise an enthasiastic agricultarist. The crops are heavy, and give expression to the fertility of the Melville estate. A oonsiderable stock of Highland cattle, Ayrshire cows, and sheep, add to the anrieties of the manager, and, like everything else, they are in prime condition.

Half-an-hour's stroll bringy us to the castle, an imposing turretted mansion, commanding a fine bit of the Esk, and surrounded by lawns and shrubberies, rioh in ornamental trees. The extansive breaks of Rhododendrons, many of them added of reoent years, must have a striking effeot in the early summer. The size of some of the Beeohes and Oaks in the environs of the oastle remind of the remote historio prominenoe of Melville. It has its Queen Mary's Oak, and its pre-Reformation shrine; and, still more interesting, it is assooiated with the great Henry Dundas, the friend and colleague of Pitt, and one of the most distinguished and popular of those potent individuals of a past generation, who went by the sobriquet of "Kings of Scotland." His monument in St. Andrew Square, Edinburgh, is the tribute of Scotland to his varied services and
gifts. Besides being associated with the memory of Queen Mary, the annals of Melville proudly reoord two visits of royalty within the century. Genrge IV. was here in 1822, Queen Vietoria in 1842.

The next or jact of interest is the gardenp. Melville's fame hat long been eminent, and deservedly s. The Grapes grown here for the last twenty
yeara have been the admiration and the envy of many a far-travelled visitor. A long record of prize-taking, which hat of late, owing to the multifarions engagements of Mr. McKinnon, been discontinued, atteats to the great thinge they have achieved in competition at all the more important exhibitionf.
A look at this year's crop is aufficient to prove that the traditions of Melville in this reapect are well maintained, and to induce regrat that Mr. McKinnon resiats all our argumente to appear once more in the lists. The firat house we entered was a late vinery, containing Alicante, Lady Downs, and Grow Colmar. The large size of both berry and bunch, and the presence of excellent colour and finisb, indicated both care and intelligence in rearing. The same featares were obervable in the next two houses, devoted to the caltare of Black and Golden Hambargh, Gros Maroc, Mascat of Alexandria, Mrr. Pince, and Madrenfield Court. The Golden Hambargh were apecially magnificent, and the akill of Mr . McKinnon and hit able chief assistant, Mr. Black, have been particalarly successful in bringing near to perfection the crop of Madresfield Court, which have a tendency to crack, and are very difficult to finish.
Two other houses are devoted to the rearing of early crops, and from the finished appearance of the banchen left, give every indication of health and vigoar. Several other houves are devoted to Peaches, Tomaton, Fige, Plams, \&ce, and are aimilarly indieative of the revaltes obtained by able management. Whether regard be had to the sizs or to the filavour of these fruite, it is sufficient to *hy that they are fruit-rearing here, and one which owes its initiation and perfection to the present manager, is the gplendid collection of frait trees in pota, which crowd other two large houses. A large crop of Apples, Peart, Piumb, Cherries, \&c., is annually prodaced, which may challenge comparison with that grown ander the most favourable conditions of climate, soil, and sets us marvelling at the resources of the gardening art here brought into play.
Tarning from frait grown under glase to the fruit and vegetable gardens, the reaulte this jear have been romewhat disappointing in the case of Apples and Pears at least. The fact that June was excessively dry in this part of the country, combined with the sandy nature of the subsoil, blighted the early promise of a large number of treen. Otherwise, the appect of these gardens revesl a good average crop of fruit and vegetables. There is a specially fine lot of Morello Cherries.
The exhibition of flowering plants in the conservatories and flower garden maintains the tradition of former years. Oas of the former, whoso roof is hidden by a mass of Tacsonian, Fuchrias, and Clematif, contains a mixtare of greenhoune plants, sill in prime condition. The broad bordera of the walk in front have long been remarkable for the collection of herbaceons flowers, embracing many rare specimens. A number of bedu in front of the Palmhoure, ablaze with Begoniar, give a very atriking effect of brilliant colour to this part of the gardens. They bave been found to atand the rainy weather of this damp climate better than Pelargoniums, and the heavy rains of the month of Jaly have enabled them to recover from the drought of June.
The flower garden comes last, bat it is not the leant characteriatic of the beauties of Melville. It reveals a fine combination of taste and intelligence. The long rich border of Phloxev, Peatatemons, Antirrhinumes, \&ce, backed by a high wall ablaze with variety of creeping plants, combines nym-
order of the day, and in addition to many gems of their kind, we were apecially struck with the graceful effect prodaced by a frequently recurring one composed of Begonias, Gladiolus, Lobelia cardinalis, and Dactylis glomerata. The plan of devoting the centre beds to plants of tall growth, serves admirably to break the monotony and artificialnens of the conventional flower garden, and contributes to create the impression of the presence of Natare rather than the hand of man. The whole is finely set off by a border of Rhododendron, mixed with golden Eider, Retinosporas, \&c., and rans along the lefthand side. Tourist.

\section*{BEGONIA DISEASE.}

Coutivators of tropical herbsceous planta, ach an Gloxiniae, Achimenes, Pentas, Impatiens, Vincar, and especially Begonias, are more or lens familiar with a "disease" which attacks these plants, sometimes crippling and practically destroying whole batches of them in a few weekn. It attacks chiefly the young leaves and flower-budy, causing the latter to wither and fall off, and the leaves to carl and become aborted. When the disease is bad, the youngent leaves are arrested in growth when very mall, and the whole plant soon presents a hopeleanly crippled appearance. The leaver are diacoloured with patches of a black or brown colour, as if suffering from a rust-fungus of some kind.
The general imprestion with regard to the nature of this diseave is that it it fungoid. Attention was called to it recently in these pages in a paper on "Taberoas Begonias," by Mr. W. W. Sheath (see pp. 267, 263), who etated that " Pot-plants (of Begonias) are sometimss infested with a kind of rast on the atems and leaves, which nome growers ayy is a fungus, but I have found it more prevalent when in too much heat in apring; also by audden changen of temperatune or dranghte; by imperfect drainagein fact, by anything that wonld canse a check in the growth." Oa p. 305 there is a note signed "W. K.," wherein this disease is attributed to "large numbers of white insecte, barely visible to the naked eye." Another correapondent, however, "H. W. C.," who says ( 0.337 ) that he is an extensive geower of \(\mathrm{Be}-\) gonias, does not believe that the mall white insects are the cause of this rat-like disease, but inclines to believe that it is caused by a fungan.
A similar discassion has been going on concurrently in the pages of The Garden. I have been acquainted with this disease for soms yeara, which at first I thought was some kind of ruet-fangus, bat which I now know is caused by a very amall insect or mite, an amall as it be invisible to the naked eye. It runs very quickly, and therefore often soon leaves a leaf or shoot if dieturbed. This no doubt accounts for the failure of experts to fiad the insect when apecimens of the disease have been tubmitted to them.
By lightly fumigating once a week with tobacco the plants sabject to the attacks of this pest, we have now no diffisulty in keeping our Begonias clean; indoed, I may say that tobaceo famigation is a parfect preventive, and almost a certain cure, if the plants have not been hopelessly crippled before it is applied. This year a batch of Acanthaceous plants, auch as Justicias, Aphelandras, \&s., had been anfering from this particalar disease for nome weeks before it was noticed. The gardener in charge of the plants thought a fuagus was the cause of the carling and discoloration of the foliage. By frequently dipping the affected plants in a weak solution of tobacco, the plants were, in motc casen, alaved, and have aince quite recovered.

Every cultivator knowa how easily irregularity of temperature or atmospheric moitture will bring on an attack of red-apider or thripe among plante grown nnder glass, and thin mite, which is smaller than either of the two peats named, and at least as quickspreading and iojurious in its effect on the health of the plant, can get a atart from the eame carue, viz., bad ventilation or some other fault in the atmo. aphere in the houee containing the plante.
I am quite certain that the divense, as above
dencribed, and which attacks various tropical her. baceous planta, is the work of an insect or mite whieh may be kept under by the frequent un of tobacco, either in solation or as fumes.
If farther proof is wanted, the following thould saffice. A fow daya ago I aaked Mr. Mauee, the eminent fangologist, to examine some examplea of plant affscted with this disease, and which hal escaped notice till recently. He reported af follom: -"The disease is caused primarily by very mianat, white insects-Saprophytic fungi, anch as Botryti, Hoterosporium, \&c., soon follow. Keep down the insects and the direase will disappear."
Certain forme of black blotehing and lenf.culimg which often disfigure Mandevallias of the Chimms section and some others beside, are the work of an almont invisible insect, probably a relation of the miechievous little red-spider. It muat be pought for very carefally, and when discovered it requires nowe care and perneverance to get rid of it. Bat this, of course, is another story. W. W., Kow.

\section*{KEW NOTES.}

Musa Frir,-A plant bearing this name is now in flower in the Palm-hoase at Kew. There appeara to be some doubt as to the true characters of M. Fehi, bat whether the plant under notice be that specigs or not, it is cartainly new to caltivation, and is atrikingly handsome. It has atems 10 fets high and 6 inchea in diameter at the base ; the learen are 6 feet long and 18 inchen wide, with a ejlino drical petiole 18 inches long, clothed with a white mealy down. The inflorencence is horizontal, the atalk 1 foot long below the firat whorl of flowen; the bracte are ovate, concave, the largent 8 inche long by 5 inchea in width, and coloured crimonclaret, the colour being very rich when the brach firat unfold. They are mach more persittent than in M. eapientum. There are from seven to nine flowers in each row, at the bass of the bracta, and the fruits are angular. M. Fehi is a native of Tahiti and Now Caledonia, and bears edible fraita which sometimes ripen their needs, and sometimes an seedleas. The plant at Kew was obtained from the Jardin den Plantes, Paris, three jears ago, and it is now fowering for the first time. A draming of it has bsen made for the Botanical Magazine.

\section*{Agave atrovibens.}

One of the largeat Agavee ever grown at Kevin now pushing up a flower-spike in the Pulm-houre, whither it has recently been tranaferred from tho Sacculent-house, where it was a conspicuous objet daring several yeara. It has fifty leaven, the averse size of which is \(4 \frac{1}{3}\) feet, and width 14 inches, tho margins are clothed with stout hooked teeth, and the apex with a stont straight apine 3 inches long. The spike when fally developed is about 30 feet high, the flowers, which are tabalar, yellow, and 4 inches long, being crowded on a thyrsoid panicle 8 feet long. The leaves on wild plants are said to be 12 feet long. A plant of this apecies flowered at Kew in 1888. It it one of the commonent of the Agaves grown in the gardens on the Riviera, miere it generally goes under the name of A. Salmings The big Agaves at Kow have been reduced in number by the flowering of a considerable number within the late thres years. This is the third giant that has flowered within twelve month. Of courte, they perish with flowering.

\section*{Wallichia caryotoidss.}

This is the handsoment of the three known apecies of Wallichia, which are all represented in the Palmhouse at Kow, where two of them, viz, W. deesil flora and W. caryotoides flower now and then; whilet the third, W. diaticha, is alwaya attractive in the arrangement of its leaven, which is as distichous as in the Traveller's tree, Ravenala. The habit of W. caryotoiden is soboliferous (tufted), the jearea forming a crowded cluster 4 feet through at the base, with a apread of about 12 feet ; each leaf is 10 fees long, the leaflete are 2 feet long, cuneate at the buse wider and jagged at the apex, dark green on the apper surfacie, sitvery below. The male inforecterect
is developed about a foot above the ground, and has a stout carved atalk clothed with large, boat-ahaped, overlapping, parplish•bruwn bracta, below which is a dense clater of drooping anbranched tails, about a foot long, clothed with pale pink flowern. This is
\& Co., of Colchester, at the meeting of the R.H.S. on Tuesday, October 29. Lycoris is allied to Amaryllif, but is distinguished from that genus by the small number of ovules in each cell of the ovary. The length of the segments in \(L\). aurea is 3 inches, and

\section*{Plant. Notes.}

Primula Cashmeriana (Capitata).
Tars North-weatern Indian Primrose is one of the most charming alpinet for fowering at this

the firat male infloreacence the plant has borne, the previous ones hitherto being female, lens crowded, with branched tails and inconspicuous bracta. W. W., Kew.

\section*{LYCORIS AUREA.}

Sevrrac plants of thin excellent antumn-flowering apecien (6g. 94) were hown by Meanr. Wallace
the colour a rich orange; the anther are yellow. coloured. The flowers appear unually in Auguit and September, and before the leaves; the plant is amenable to greenhoume culture. The bulb is anbglobose, 2 inches in diameter. It is figured in the Botanioal Magazine, to 409, as Amaryllis aarein, and it was introduced from China in 1777 by Dr, Fothergill.
secson, decorating the otherwise bare rockery. It seanon, decorating the otherwise bare rockery. rosette. The flowerl are of a violet colour, and well elovated on a stout atalk, which is covered with a menliness even to the calycer, remembling P. farinona in this reapect, as in otheri. I saw a bed of it the other day, and every plant was in bloom. The nituation, sheltered by a high bank, and ahaded by a
tree, seemed to exactly suit it. The heads were full of flower, and the bed made a fine show. A. \(H\).

Petrea volubllis alba,
This is a lovely thing when in flower. A small plant at the Botanic Garden, Grenada, is occationally laden with pendulous tail-like racemes of white flowers. A pretty contrat it is, therefore, to the parple-flowered Petrez; and when both flower together on a slope or on level ground, they form a conspicaon and pleasing picture, scarcely to be passed by unnoticed.

\section*{Villamilla octandea.}

This is a plant commonly to be seen and passed by in a walk abont the coantry. It is a pendalous scandent, Vine-like shrub, which, at the time of flowering, is oftentimes destitate of foliage, whilst at other times the foliage and flowera come together. The flowers are borne along the brancher, and when no leaver are present, the shrub looke like a maus of bare twigs covered with a costing of now. The flowers are white, with a faint green tinge. The plant might be worth caltivation in Earope, if it has not already been grown there. At its fruiting stage, the plant is even more conspicuous than when in flower; it then bears a great number of parplecoloured fraits. Biakets of different sizes are made from the large stems by an old Frenchman named Sprartz, an inmate of our poor-honse. These be sells at 2d. and upwards. W. E. Broadway, \(B\) otanic Garden, Grenada, British West Indies.

\section*{ABOUT CHRYSANTHEMUMS. \\ (The notes below were written before the first of the exhibitions was held.-ED.) Thert Park, Barnet.}

Thover so young a man, Mr. W. H. Leea, gardener to F. A. Bevan, Esq., has taken so high a ponition as a grower and an exhibitor, that the condition of his flowers naturally excites amongot growers the liveliest interest. I anw bis plants on the 265h, and so far as the Cryatal Palace show and the National are concerned, Mr. Lses should be in splendid form. If he has any weaknens at all, I should look for it in the direction of undue precocity; just as his formidable competitor at Latherhead seemed a little late. However, time will show. There are some 600 plants growing at Trent Park in numerous hoasel, and no effective concentration is made; but that may be no harm to the grower. Japanese are, of course, the prominent section, and many of these are indeed suparb. Iacarvede also are very fine; indeed, Mr. Leev' own eatimste-sud he is a capable if a partial judge-is that he has never been atronger than this season. Of Japanese, that truly beantiful white Souvenir dune patite amie is aplendid. So, too, in a newer one-Mutaal Friend, that neems like one come to atay; the petals are broad, and the flowere are masive, and of the purest white. What a grand flower is Thor. Wilkin! colour cromeyellow, the petalls long and drooping; and yet another anperb yellow is Pallanza, after Sanflower, bat rather richer, and having broader petals. The richcoloured Mr. Soward is very fine. A striking flower is Robert Ballantine, large and dirtinctive, colonr rovr-magents. Madame Ad. Moulin is yet another fine new white; and George Biron, a rich reddibh chestnut, is a striking flower. In spite of its carions name-Davil de Jales Ferry-violet-amaraath, with pale reverse, is a telling flower; while atill another white is found in Mdlle. M. A. Calvert, which bat a long ribbon-like petal, and is dittinctive. Then in Amiral Avellan we have another yellow of a rich orange hue; Madame Champon is a refined Etoile de Lyon, and may, if found generally astisfactory, yoplace the older variety; Mephisto has the colour of the old La Japonsise, and the atyle of Comte de Gorminy, and is full of promise. A very protity and true Japanese is Cryotal Belle, having the form of the old Golden Dragon, and of a delicate woft pink hae. That fine older yellow, cately tinted and fine in form is pood; very deli-
popalar ; and another white, Gairlande, is both solid and pleasing. Colonel Chase, though not large, is very beautifal, having a golden centre with outer petale of a soft flesh hue. Older varieties like E . Molyneux and J. Shrimpton are first rate. Madame Carnot, another white, bids fair to atand in the front rank of that aection. A good browny chestnat flower is Madame A. D. Gurond; H. Jacetot file, Mons. Panckoucke, and Abbey Maidenhall, are excellent also. These are, however, but a few of the many fine varieties at Trent Park, Ot incurved, there seem to be, if fower novelties, at least all the very beat of the old ones, and all in very fine form. Qaeens, Princesses, Teckes, \&ce, are all excellent, and promise capital blooms. Oi later novelties, J. Agate, white ; Globs d'o ; buff yellow; Lucy Kendall, W. Taunington, and Robert Petfield are the most noticeable. In a cool hhed, where wonderfal early bloome are being retarded, Mrs. W. H. Lses, a new Japanese, was grand indeed; so also were Eva Knowles, Colonel Smith, and other older ones. Throughoat the whole collection, there are ample evidences of the highest calture; wood is atrong, leafage fine, and fally retained, and flowers of the largest. It will be no matter for aurprise if in some notable competition they should be found hard to beat. \(D\).

\section*{Downside, Leatherhead.}

The very high repatation which Mr. W. Meare, Mr. Tate's able gardener, has obtained al a Chryaanthemam grower and exhibitor, naturally attracts special attention to his plants every year, and this neason as strongly as ever. He is at present one of the champions of the autumn queen, and usually takes a very high place in the competitions. His plants jast now are full of promise, and he has a very fine and varied collection of Japanese, incurved and reflexed, though atrongeat in the two former sections. With characteristic courage, Mr. Mease adds numeroar novelties to his collection, picking, so far as possible, the best. Of older ones, he has plenty in the finest condition, and such well-known varietie as E. Molyneux, juat now aplendid, literally for its colours anbeaten by any of the new ones; Souvenir dune petite amie, beatiful white; Eda Prase, Mdlle. Thé è ie Ryy, R. O nen, International, Sandower, Piéet Ribarts, Commander Blassett, Hairy Wonder, and many othere fairly well kjown. Then of new Japanese, A. H. Fewkes, nomething of maller style, bat of a deeper yellow, and broader petal, very fine; W. G. Nswett, a superb white ; Mra. C. E. Shea, creamy-white, fine bloome, and a stardy grower. Thi variety enjoys the reputation of being the dearest yet pat into commerce, as plants cost one gainea eacb. It ought indeed to be good for that sum. Golden Wedding, though represented by one plant only, is here very robaut and healthy, promising glorious golden flowers. Dachess of York, oft light yellow, is very full of promise. Another beautiful rich yellow is Sir E. T. Snith, that will probably be peen prominently later. Golden Gate, bronzy-yellow, promises very fine blooms. A grand new white is Mdlle. M. A. de Calvat, petals drooping, the blooms dense. An attractive incurved form is Globe d'Or, showing both clear yellow and reddioh brown bloome; this bids fair to make a fine addition to the nolid Japanese-or in it a real incurved? D. B. Crane is apparently an incurved Japanese, though termed of the ordinary incurved section; coloar golden-bronze. Another fine yellow is Pbobus, something of the form of Harman Payne, but more refined petal. Yet another Jellow, M. Charlen Molin, tinted with bronzs; a rich flower. Very diverne is Denil de Jales Ferry, large apreading blooms, dark violet-rone face, with silvery reverae. Another massive incarved bloom in Major Bonnafond, a masive, pale jellow. Good Gracioun grows very tall, but it givea some charming toft pink flowers of great beanty. The much-talked-of Pbiladelphia in here too, bat far from being incurved; it is promising to nstume a drooping character. A massive pare white is Madame Carnot. Mrs, W. H. Lees has flowers both white and much tinged with pink, but very fiae. Dalike of York is another flower of the Harman Payne type,
but deeper coloured, and batter. M. Grayer hat large blooms and broad petals, colour pale rom, white reverse. Mr. Joanny Moten it a atriking flower, colour of Callingfordi, very taking and effec. tive. James Myers, somewhat after Viriand Morll
in form, colour soft rosy-cerise, is very pleaing. Ot newar incurved forms, and these relatively are for, Mru. Archie Kingdon, white, flubhed piak, of Princess type, very solid. Globe d'Or, alredry noticed, is amongat the incarveds, in deeper han than previously aeen. Ribert Petfield in rery fin Jumes Agate seams here as much Japanore u in carved; Lord Rosebery promises very fine foma; so, too, do all the Teck typer ; indeed, they arm good. A. D.

At Lilford Road Nobabries, Cairbamel,
Mr. Norman Davis showed as aboat a fortaint ago, a batch of plants in flower of his nee whion Japanese variety Pallanza. We had meen tho mivies eleewhere, but its most valuable characteritiec conld not be detected so clearly as Mr. Davis' groap dinplayed them. The plants generally vera dranf very weak, and had been grown from eatting struck in May, and some in Jane. Yet each plant bad six or eight good blown upon it. The colour is rich, the petale mooth, and the bloom capital for decorative pappous As there will assuredly be considerable dicuim regarding the value of this variety for extibition purposes, and its nimilarity to the very protes het frequently anastisfactory Sunflower, it should bo remembered that Pallanza's greatest value will ho found to be ite usefulnen for market work, end for the general grower. It will farniuh abandaneo of flowers very similar-yet quite dissimilar-so Sm. flower, without any apecial culture whaterer, on the other hand, most growers have trouble mith Sautower, and some have actually discarded it, yit Davis admits that it may not be practicable of exhibit the two varieties on one stand or in the amme collection. Oa the crown bud, the fome bears atriking resemblance to Sanflower, but in the terminal the likeness in much diminiched. Whilot is claimed that as an exhibition flower Pallazas rill onat Sandower, there can be no donbt whaterer that in every other respect it is saperior to that raiiefl. It has already found anusual favour with matk growers, and blooms of it this time next neason a hond be as plentifal as Blackberries. We may add, the the variety was raised by Mr. Briscoe Ironside, wilio reniding in Italy. Mr. Davis regards os aedilige which showe a tendency to become a good matral and a generally useful kind with as much faroris 4 one likely to give fine exhibition blooms. A nividy with the remarkable name of Son Altesse Sida Tiud \(B=y\), and hailing from Dslanx, the French raiver, if expected to become a aseful kind. The downaty very distinct and pretty, rosy-pink, almost the amis coloar seen in the old variety Roseas apaerb, but in this case mach lighter. A good wiem of plants of Madame Carnot was oberem and a vimilar one of Mdille. Théere Rel. Mr. Davis is inclined to consider the lat-named best white Chrysanthemum atill, but Madame Cand promises well, although when this notice was what it was too early to determine its exact wim Lady Biron if a capital white Japanese bloowe wid incurved petalu, large, and not tightly cappedu will no doabt prove to be a good thing. Allection named seedling white Japanese in this cole Mel seems to possens great ponsibilities. Pride of mider ford, for which Messre. H. Cannell \& Sons obsaide an award of merit recently, had six good badien wer plant, and promised well. Many other raritier mily blooming or about to bloom, inclading Philadep and other new ones. Comte F. Lonrane has nemith dropped out of collections, but it is a verf mity flower, with a white ground, and nearly coverd atripes of rose.

At the Royal Exotic Nurserile, Chiluthe
Mesart. Jas. Vaitch \& Sona, ataged agood giv of plants at the October show at the Royal Aq but the general collection was not by and
a week or so since in an excellent manner. International appears to be coming very pale yellow or nearly white, and the slight rowe seen in the flower latseasen is wanting. Miss Louise D. Black, an American novelty, from Hill \& Co., ie not at present a deep flower, but the incurved floretw are of reddichorange colour, and very good. Warrior is a Japanese incurved, the flower large and globular, rather closely capped, bat the colour pale drab, detracts from its value. Graphic (Owen), a Jupanee, is now-white. with irregular patale, and promisen to be very attractive. Pallanza was very deep in colour in thie collection, and will rival Sunflower. The well-known variety G. C. Schwabe generally does very well at Chelsea, and this seavon offers no exception; Whilat the ame remark may be applied to Eda Prasi, which in generally good this year. Lonise has been capital, and Mra. F. Jameson is very good. The new William Bolia, roy parple-coloured, with nilver reverne, will make large blooms; and Mons. Panckoucke promises well. Mons. Chas. Molin (Calvat) will prove to be a very good yellow; and Charles H. Cartis (Jones) will no doubt make a good addition to the incurved section-the flowers are a good yellow colour, and when finished the blooms will be of large size. Madame Carnot is expected to become a very good white Japanese flower, and the bad an opening would quite anpport this view. A variety in the way of E. Molyneux it M. Geo. Biron; it has the advantage of being a good doer, but as regarde attractivenem, we atill prefer the older variety. A very spreading yellow Japanese flower is Dachess of Wellington (H. J. Jones). The colour in good, and the petals, though narrow, are very long, but the bloom should be deeper. Mrs. W. Dreer has a flower in the way of Mre. F. Jameson. Bads of Mrs. C. E. Shea were rather late, and had not yet opened; but there were good flowerm of Colonel Bourne ( O wen), a nice short grower, bearing flowern of a capital crimson, not anlike James Lynch. Nyanza, from Hill, America, is also a capital colour, but apparently the petal by recurving greatly will not show the colour much. Many of the older kinds are grown well at Chelsea, and at the same time the collection is full of novelties. \(\boldsymbol{P}\).

\section*{Woodhatch, Reigate.}

When Mr. T. B. Haywood received the customary large party of friend who annually visit his delightful residence and gardens, at wat the cate on the 30 th ult., he had to ahow them one of the moat varied and attractive of private collections to be fonad, perhapy, in the kingdom. His gardener, Mr. Salter, does not confine his favours as a firstclass cultivator to one aection only, for he presents Japanese, incurved, Auemone, reflexed, and Pompons in rich profunion, and in the mote varied forms. It is difficalt, indeed, to say which exbibits the highest culture, for if the great Japanese seem mot attractive, the other sections are of the highest relative excellence, and are of their kinds exceedingly beatiful. The bulk of the ome 800 plant grown are ranged on sloping banks in two long lean-to housen, where they make a aingularly attractive ahow. Of newer Japanese, the dominant section now, special interest attaches to an exceedingly fine white from Australia, named T. B. Haywood, that should make a good reputation. International is here very fine, yet not coaras ; and Jas. Myers is excellent. Violetta is early, colour white, flushed pink; and Wilfrid Marshall is a fine yellow. Another fine Australian white is Mre. H. B. Higginu. Sach well-known forms an Mrs, E. G. Hill, W. Seward, Eda Prant, Viviand Morel, and Mona. Panckoucke are first-rate. A very beautiful variety, also white, is Florence Emma; a very atriking flower in Madame Maarice Ricaud, colour rosy-red. Good, too, is the highcoloured Commandant Blussett; and Colonel C. B. Smith seem: to ba here, a: everywhere, very fine indeed this reason. Mr. C. Shrimpton, too, is in grand form and colour; a rich clear yellow in Thon. Wilkins. Prenident Calvat, of chestnut colour, is large, but rather rough; Lady E. Saunders in of a lovely atraw-primrone hue; Chas. Davia is very fine; and a very pleaning flower in Mr. R. Dean ; one
of the mont pleasing woft whiten is Rove Wynne. Deuil do Jalen Ferry, rich amaranth, is very fine; 0, too, is M. Grayer, large, and of a plessing pink hue. A superb white here, as elsewhere, is Souvenir d'une petite amie. A truly grand flower, of delicate straw-yellow colour, is Madame H. Damolif, the petale very broad and mansive. The white Banuty of Exmouth is fine; and J. Agate here is a Japanese incurved, though in other direction a true incarved. Of this latter section, Madame Darrier, M. A. Bahuant, Baron Hirsch, R. Petfeld, the Qaeen family-indeed, all the beat-are well represented, and in capital form. Amongat the Anemone section, very fine are Dalaware, Mru. Jadge Benedict, W. W. Ator, Minnie Cbate, Thorpe Junior (rich yellow), Sir W. Raleigh (mave), Owen' Perfection, Nouvelle Alveole, and Mons. C. Leboucqz. Of new rellexed, a very beautiful flower is Clara Jeal, ivory-white, with gold centre. Amongat Pompons, Elaie Walker, goldenbuff; Prince of Orange, reddish-gold; Pygmalion, reddinh-cheatnut; Maid of Kent, Tousenint Marisot, Black Douglas, Golden Malle. Marthe, St. Michael, and Eyneford Gem, are nome of the besto It is ponible, however, to refer to only a fow out of the great collection. A very beantiful ahow may be seen in one of the Orchid-houses of eleven pans of the charming Pleione lagenaria, each about 13 inchen acrow, forming dense mases of flowern. Also in another house a grand mask of varied colourt, obtained from apperbly-grown and bloomed zonal Pelargoniums, auch as could not anywhere for quality be excelled. A look into the fine and airy fruit-room is also an interesting featare, for Apples and Peare are not only plentifal, but include noble amples. \(A, D\).

\section*{Mr, W. Wrlls, Earlswood.}

On of glorious a day as was the 28 h , it was a delightiul walk from Woodhatch, acrons the common which intervenes to Mr . Welle' nurtery at Earlswood. Here the plants may be counted by thousands, and it is to the grower's credit that every one is good, and the diepley a first-rate one. Special interest naturally attaches to the huge trade collections, because novelties are looked for, and we are not disappointed. The bulk of the plants are arranged in a double-sided centre bed in a very large long apan-house, and the aides and end. are also fully furnished. Varisties, too, are largaly placed in blocke, ot that it is more easy to ascertain the average character of any. Japanese, of course, claim first attention, and foremost amongst these is the new M. Chenon de Leche, broad even reflexed form, outer petals rosy-lilac, centre goldenbronz9; this is a gem. Of hairy sorts White Plume, Hairy Wonder, and Luais Boehmer are very good. A good variety is M. Ad. Girand, atyle of Gloire do Boesker, bat finer, richer colour, and dwarfer. J. Shrimpton is in mperb colour, really yet of ite line unexcelled. A grand white again here is Madame Carnot; and Colonel Chase, though not large, is lovely. Mons. Cb. Molia is of a rich rosy-bronze. Rose Wynne, one of the finest whites; though Souvenir d'ane petite amie is one of the very best now. Mrs. Airdrie, incurved form, white, striped rose, is good; and apecially fine in Mons. George Biron, reddish terra-cotta, with pale gold reverse. A fing variety is M, H. J. Jones, colour rosy-amaranth, with silvery reverse ; and Madame Mauriel Ricord is here, great beanty, style of Excelsior, but richer coloured. Deuil de Jules Ferry is superb; this is a conetant variety evidently, as it is so good overywhere. Mdlle. M. A. Calvat is one of the fineat white without doubt. Louise, now getting well known, is a mastive flower of delicate hue. A new and fine jellow is Thow. Wilkins; Mand Pearton, coloarnotunlike that of Belle Panle, but with larger flowers, is very pleasing. A promising flower of rich golden bronse hue is Moucherette, that bide fair to dimplace Colonel C. B. Smith, it is of fine and masaive. Bearty of Teignmoath, crimon-maroon, shaded violet, and vilvery-pink revere, is a beautiful flower to be borne in miad. Of incurved varieties, J. Agate is here true, and of
fae form ; a great beanty in this section also is Mre R. C. Kingaton, woft lilac on white ground, fine form and deep. There are handred of other well knowe: varieties, also of Anemones, reflexed, Pumpons, \&c. Single varieties are very charming, and Mr. Wells grows and raise largely; a good half-doren of these so delightfal for cutting purpoee are Vargin Qaeen, large pure white, rose-pink; Mary Auderson, fleeh, charming yellow; Bertha, piak-magenta; and Lizelo Mainwaring, bluth white, A lerge number of plante of Souvenir d'ane patite amie from March-atruck cuttings, and carrying fine bloom at from 15 to 20 inches in height, show what a fine variety it in for grouping. The new Japsnese incurved Globe d'Op is very fine, and maken it a capital addition to that aection, if it may be mo termed. \(A, D\).

Mr. W. J. Godpray's, Exmouth.
large apan-roofed house, 156 feet long, and 27 feet wide, full of exbibition bloom of all the newest and beat varieties of Chryanthemums, wa the grand aight presented to my view on October 24, when risiting this popular and increasing sea-aide town. The entire collection showed signs of aperior akill in cultivation, and could not have been more healthy, stardy, and clean; the house in which they were ataged was erected pecially for this objoct, baving an arrangement of thin tiffang for shading in case of bright aunshine, but which could eatily be removed when not required. I was also fortanate in being conducted by Mr. Godfrey himeelf, who is now regarded as une of our mont experienced apecialiats in Chrysanthemume. The admired and greatly-diccasaed Beauty of Exmouth, with which Mr. Godfrey made hia debut, originated an enthasiasm for Chryanthemam cultore, which bas resulted in the superb display mentioned in the first few lines of this article. The collection referred to includes all varietien worth growing, varietie of home and Continental raising. Among these, I misy mention a few which, perhaps, have already been noticed, but are here presented as grand and reliable varietien. White Madame Carnot, an immone bloom, very deep. a grand flower. Mdlle. de Is Galbert, a lovely white, beantifal form, likely to become a very popalar variety. Matual Friend, also a largo white, outer petalis very elightly shaded with mauve; Mrs. W. I. Godirey, a large batch of thit variety of turdy growth, many plante carrying five bloom each of the 'most benutiful white in existence, the petala alightly hirsated, and broad petals, maseive, boing a greatly improved A. Hardy. Dachess of York wat giving aome very promising bloome. Mise Rita Schroeter, a monster bloom, creamy-white, each floret shaded and edged with lilac-rose; Mru. G. Weat, of American origin, alon an immense bloom, after the atyle of Mre. E. W. Clarke, bat aitogether superior in eizo, form, and colour, the richeat yellow in the houve; Mise Louive D. Biack, in form aimilar to Lincola, bat larger florete, and much richer coloar; Miss Elnie Telchmann, milkwhite, one of Mr. Shea's seedlings, capital form and mubstanc \({ }^{\text {; }}\) A. H. Fewken is of a capital dwarf, aturdy habit, a rich globalar bloom, and of good sizs; Beauty of Teignmouth was represented by bloom mach auperior to Dake of York, having a better habit, much richer in colour, and very distinct in foliage; Gold Dast, whose petals are of a most beautiful plume shape, is an extremely atriking flower of a clear canary-yellow; Nyanza seeme to be an improved Beanty of Castlowood, of a brighter coloar, equal in sixe, bat a mach better grower: Phoebus, a splendid yellow, will be mach ought after, and is here represented by some very handsome blooms; Philadelphia, largo batch in growing, colour a pale yellow, changing to white.
About 400 eedlinge are being cultivated on trial this season, many of them heve developed blooms of exceptional merit, while a great many were yet to develop, bat looked very promiving. The eelected varietie are named, and will be sent out next pring. those that are already considered acquisitions, include Pride of Davon, which boast of being the largeat bloom in the house, white, alightly thaded
pink, long drooping outer petale, forming a very deep flower. Wilfrid H. Godfrey, a very diatinct variety, canary-jellow, reverne atraw colour, the florets curling at the tipa, which lenda a charming effect. Mr. J. P. Beyce, a very handsome variety, noft rosepink, broad florets, bloom of good aubatance and form.
A large variets is grown for decoration in other hoasen, besides seedlings in various stages, both of his own and other noted raisern. Mr. Godfrey has apecial arrangements in his houses made for the perfecting and mataring the seed of the flowers selected for this parpose, his experiments having been attended with a fair amount of access. Several houses were fall of Carnations of his famed varieties, showing immense quantities of flower-buds. D. C. Powell.

\section*{At the Ryecroft Nubsgey,}

At this narsery, in Hither Green, just ontaide Lawisham, the collection of Chryanthemams is as intereating an ever; indeed, Mr. H. J. Jones hat pursued the cultivation and raising of Chrymanthemums with auch thorougbness since he commenced a few yeare ago, that his collection may be expected to become increabingly important year by year. N © vertheless, the visitor who goen to admire a pictorial diaplay rather than to examine the characteristics of the blooms of the newer varieties, may be leas startled with the effect produced than last year. This will be due to a different arrangement which has been adopted. Then, evergthing was done to create effect, but this year the arrangement enable the visitor to come near to any bloom he may wish to examine, and the tendency is not to increase the effect. Fewer older varieties are cultivated in special manner than formerly, in order to give more attention to noveltiez, and particularly to the increasing number of Mr. Jones' own needlings. Most, but not all, of those we can now notice belong to the last-named clane.

Additions to the incurved nection are alwaya more important, because rarer, than those of the other classey, and a good number of plants of the two varieties that are most intereating at the present time seemed to afford a good opportanity to entimate their worth. Taking Cbas. H. Curtis firat, we have a very large bloom with plenty of florets, and excellent in coloar, being bright golden-yellow; bat from present indications, the flowern will require coniderable dressing before they cre staged as exhibition blooms. D. B. Crane is a smaller bat deeper bloom, nearly old gold in colour, and is one that will require very little drensing at all. When ataged, however, the blooms of Chas. H. Cartia are mach more effective than the other, for they make as pretty blooms as any incurved fower at all.
Tarning to the Japaness varieties, there are Mr. P. Parnell and G. H. Hollingworth, both seedling., the former a large bloom of good colour (crimson), with loone florets ; and the latter a light yellow bloom with very wide florets, apparently to be very large, but bloom not jet developed. Mra, Go H. Smart is a vellow and bronzy-coloured flower, an incurved Japanese, poasibly distinct, bat not quite to our mind. A bold incuived Japanese seedling hav been named Mrs. C. J. Milla; when first opening, alightly bluah, but afterwarde coming pure whitelikely to be a good one. Mins Clara Walker is another good white one, nimilar in build to the Meg Merrilie» type. Dachens of Fife is another white incurved Japanese, similar in some respecta to R. Owen, and very bold and deep. J. H. Richardzon has extra broad florets, white, atriped with rone ; and Lady Randolph is a rosy-parple flower, with ailver reverne-a very pretty contrast. Mias Ethel Addibeen certificated, and hase popalar ; it has already been certificated, and has large flowerr, broad florets, coloured rove, with wilver reverse. Miss Elsio Toichmann is an incurved Japanese, has wide florets, and lot of "apparentily make a large flower, there being with a straw-coloured centre ; the flower is whiter It one of the firnt varieties. Mins Alice M: Love it one of the îrut varieties certificated this neason;

When apesking of incurved varieties, we should have mentioned Mr. Jas. Murray, which will, no doubt, make a denirable pink bloom; the flowers had not "bailt" when these notes were taken. Mrr. G. Gover is one of the fantastical varieties, has very irregalar floret, red with buff reverne, and will make a large flower. T. H. Wooderaon in size reminde one of Etoile de Lyon, but, we think, lacks refinement. A capital variety, we believe, Mrs. Richard Jones will be : the flowers are white, large, florets rather narrow, bat long, and recurving slightly at the tips ; it in graceful, and from the large number of plants in bloom it is a very eary "doer." Mention may be made of Mr. P. Mariton, a hairy French variety: colour, chestnat; likely to be a good thing. There are so many new and interenting plants in thi collection, that we are able to notice but a portion, nor can remark apon many of last year's noveltien, and new ones from other raieern. Firstrate blooms of such sterling varieties as Amiral Avellan (Calvat), Jno. Machar (Cannell), A. H. Fewken (American), Mrs. E. S. Hills, Mataal Friend (a capital white one), Mdlle. Paul de Croy, and International, were, however, to be eeen; and some of the finett flowers of that excellent Anemoneflowered variety, Daccarten, we have yet meen. We must conclude, however, after mentioning an incarved Japanene named Lady Playfair, from the ame American raiser as A. H. Fewkes; the bloom is pecaliarly pretty from its delicate tint. \(P\).
Nurgery Noteg.

THE ALLINGTON NURSERIES, MAIDSTONE.
If clean land, thoroughly-well tilled, with half-afoot of absolately loone soil on the anrface throagh constant working, and atocked from centre to circumference with healthy young trees, are indications of akilfal management, then Mearra. Geo. Banyard \& Co. are entitled to congratulation. The fight of trees versus weeds, has not been left without the evident interference of the caltivator in favour of the crop that will pay him, or which at any rate, is more likely than the other to do so. It is undoubtedly disappointing, that notwithetanding all that has been asid and written anent frait calture for profit, and for home consamption, there atill exist hundreds of acres of good land, on which the old fruit trees of a generation ago atill atand, trees that would be unremunerative if only on account of their great age, though in many cases they are doably worthlens, because the varietien they represent have been nuperaeded by better and more ueefal morts. On the other band, there are thousande and thouncnds of young trees of the bent varieties in the nurseries, which would yield a profit to the cultivator if they were planted in the place of thene monsgrown antiquities, that furnish arguments of a kind every year to persona seeking to throw cold water on the fruit-growing movement. Fortunately, this is not the case in regard to gardens. Gardeners have learned the lenson well, that good crops of fruit of first-clans quality may be looked for only on trees of moderate age, and that if these fraita are to be worth anything, the best varieties posible mast be planted; hence there has arisen from gardeners a atisfactory demand for thene.
Such remarks as the above are quite àpropos of our visit to Maidstone in early October, inasmach as the large quantity of frait trees there forcibly reminded us of anch orchards as we have jast described. How astiafactory it would be to the owners of rach frait groands and to all concerned, if they could be convinced of their opportanitien!
Perhaps few localities have had a leas quantity of rain during the eeason now rapidly closing than the Maidatone district, for Mr. Buayard informed us, that even when the long-endured drought came to an end, the rainfall there was particularly lighto "Have you done any watering?" we ventured to ask. "No," was the reply, "not any, it would be impracticable on a large soale, and I think the ajatem
results in more harm than good," How to exphin the healthfulness and vigoar of the whole of the trees after auch a statement, woald be a pozzle to atrangers, but one having a knowledge of the yudem of caltare here, would anhesitatingly conclade the
the sarface tilling, the constant hoeing of the nurimy soil, are the chief causes of the abundant succere Th soil mast neverthelens be very exceptional, becum while it is comparatively light and conducive to now formation, it was of anficient depth and reteotionnens to pais throngh a searon like that of 1895 minh
but few ill- effecta. We first went among rome min but few ill-effects. We first went among rometran of the well-known Apple Bramleg's Seedling, "jow
to see the crops of fruit they are carrying." ? here were froits of surprising quality and qual tityo Nor did Lane's Prince Albert, nlid was fruiting in the same apot, make a leun mo thy uhow, but, of course, neither sorta had nech an effect as the fruits of Gascoigne's Scarlet Sudliyg always a well-coloured Apple, but in the Noider district enpecially \(n 0\), where indeed it is in m Some fine trees were clone to these beariag apical fruits of Baumann's Winter Reinette, a pariefy ol which many growers we have met have a reg high opinion. Bismarcis, too-a grand applo -was bearing heavily, bat it is meldom it dom not, and we have an idea that planters are not uning this variety 10 freely as they might with advantage. One of ite most pronounced qualitiet is this predirposition to heavy cropping, which we hare noticed again and again, then the frait is of good aize, and according to information we have had from some who have tasted the fruit when cooked, it is also of first-rate quality. In appearance the Apph is certainly good, and in addition to other adranatay it posseaser, the frait hangs well upon the treen, wil may be harvented later than many varietien. Wo next pase a grand lot of atandard Cherry-trees, proty apecimens, and in robast health, capital trees for tho Kentisb, or, indeed, any other Cherry orcharinh Bat neur by is a very large batch of standard Aplea and Peara, aleo for orchard culture. What excellent trees they are! Sjems so mooth and straight, uif moulded, and thick withal. These 60000 atanderd were only four yeara old, and the mejority d them have large heads that suggest rather half-a-dozen yeara. How the different varidin vary in their growth! Of course, all the trees are budded or grafted low down, and the the is formed by the ncion, not the atock, hence th difference in time required to get varieties up in conaiderable. In another part of the nariery \({ }^{1}\) further batch of standards is seen, and Mr. Buajuld estimates that in all he has about 120,000 such treas Now, the entire atock of frait-trees is decidedly fithe class, bat none in the collection are finer of that kind than these orchard etandards. At a mation of course, the varietien represented in then trean In those of sterling merit, and useful for martet, Wh noticed a few of them, namely, Ecklinville Seeding Golden Spire, Now Hawthoraden, the Queen, 0 aed of the beat flavoared of culinary varieties; Banty of Bath, Beauty of Kont, Peasgood's Nonsach, Colond Vaughan, a great favoarite in Kent; and last, but nof least in importance, Newton Wonder, a fritt-clall Apple, sent out by Mesars. Pearmon \& Sons, Chilm This Apple, wo believe, was the ramult of serve between Damolow's Seedling and Blenheim Orime and the young trees and fruits apon the name Maidatone, were sufficient evidence of its cropping qualitien, and of the excellent character of the fraile Pueving on to one of the alopes-which are commed in Mr. Banyard's ground-we were compolled th pause to inquire the name of the Apple manime such an effect in oas of the hollows. "Tast in Gisf coigne's Scarlet Soedling again," snid Mr. Buryul It was another batch of this excellent Apple, without doabt, it farnished the greatest piftorin effect to be seen in the nursery. Bat there is listio time to linger in auch a nursery, and we were nom remarking upon another excallent Apple nam Allen's Everlasting. It is asanlly good in tho the quality is aplendid, and it cropes very froely. fruit is only of mediam size, ruseety in apposiming with a fow red blotches. A remark is cortuily
deserved by a quantity of first-class two-year-old trees of Siirling Castle, an Apple that needs no praise now. Then there in Hollandbury, a good usefal Apple; and many othars, which we mutt perforce pass over. In doing so, however, the health and kindly growth of the trees, whether on the free stock or the Paradise, is very apparent. Double grafted tree also are seen, varietie that are not satisfactory except treated so, and by auch means even B!enheim Orange Pippin will bear crops of fruit an pyramide at a ccmparatively early age. A conaiderable number of amateur standard were looking well. This form of training is atill very popular with amateurs, as the atem can be crepped its whole lengtb, uotil a good-nized head is made, When, if denired, the atem may be cleared clonely of all growth.
two reason. The first is, that the trees here which were grafted upon the Paradise many yeara ago, furnish \&ffectual proof that there was nothing in the objection that ased to be raised that trees so treated would be ahort-lived. The other reason for walking amonget them was the opportanity they afford of eeeing rare and interentiog varietien that are, to some extent, little known; and reference might be made to the Apple White Traneparent, an excellent early Apple, for which Mr. Banyard obtained an Award of Merit from the Royal Horticultural Society a short time agn. It is considered wuch better than Early Jalian, is a sure cropper and capital grower. Foster's Seedling, with flesh aimilar to Cellini Pippin, and fiavour like Blenheim Orange; and Mra. Barron, a good kitchen fruit. might both be better known. Mr. Bunyard think
crops of fruit from Apricot indoors. These mut be passed, however, with the remark, thas: of the former, gardenern would do well to plant lese epariagly: and in regard to the Apricots, the bordere duriog winter should be kept at dry as it is possible to get them. Strawberry-planta are grown in large quantities.
By no meane do Mosars. Banyard \& Ca.'s treasures consist exclusively of frait trees, though these are their specislty. Roves we saw in abandance, standard varietien especially. The choicer sorte of trees and thrubs of vivid-coloares folinge, or conspicaons flowers, and herbecsoat planty, lese common than mont of the apecies, are also to be seen at Allington; and bed we more time and pace at oar command intaresting notes concarniog such might be writton.


Fig 95. - hoolletia tiorina.

Large-ged trained trees of Apples and Peary, as gridiron, horizontal-trained, or fans, are kept for supply to purchasers who wish to cover walle or eapalier with trees that will frait at once.

Paning ame tree that had been transplanted, a discussion arose to whether fruit trees should be pruned when first planted. Mr. H. A. Pearson, in his lecture at the Palace recently, after fairly atating the grounde for pruning and for con-pruving the first aearon, concluded by recommending that the trees should be pruned. Mr. Banyard, with his large experience, is quite of an opposite opinion. Theoretically, the reasoning of either mehool is very plausible. Each agree that their efforts should be to induce mont root action; but to this end different and quite opposite means are adopted. It is a question that practical planters may soon, by experience, aettle for themelves.

The trial ground should not encape notice, for
that James Grieve will be better than Cox's Orange Pippin; and our attention was directed to the dark green caliaary Apple, Duke of York, from Tasmania, sa being an immense cropper.

Pears occupy an important position in this narmery. Large breadths were observed of bush, pyramidal, and trained trees; bat our time wae apent on this occation more particularly amongot the Apples, which this resson have carried so many more fruits than the Pear trees.

It may be interesting to stato that nithough a good number of orcbard-trees of Appies, Pears, and other fruits, are well grown at Maidatone, the best apecimen. Apples were to be found this seaton on the trees in the open nursery.
Many other iteme interest call for remark, nuch at the splendid and largestcck of Fig trees of the newer rarieties in pots, an well an others, and the auccesaful aethod by which Mr. Bunyard obtain good

\section*{houlletia tigrina.}

Os the occasion of the meeting of the Rural Horticaltural Society on Taesday, October 24, Sip Trevor Lawrence, Bart, exhibited an inflorenceace of this distinct and very pretty species. They havo free, spreading, sub-equal apals, and a narrow fleshy lip continuous with the column, the baen concave, and the lateral coming from behind the retrorely-carved born-like procensen; the middle lobe articulated and undivided, uanally truncate at the base. The pucudo-bulbe are one-leaved, and the flowerspike sises from their base. The peeudo bulb in thin opecies is 2 incher long, ovate, and the leaves plicate, and of a dark-green colour. The sepale are concave, of a pinkish-butf motlled with greeninhyellow; petals bright yellow, with mottling of crimson; lip pale yellow, at the tip white, with minute parplith-crimeon apot elwwhere.

Thin New Grenadan species (6g.95), like the othere, succeed in the intermediate-house, and daring it period of flowering it should be wapended, as the inflorencence arche: forward and droops over.

\section*{PREPARING LAND FOR, AND PLANTING, FRUIT TREES.}

I recoluect attending a Fruit Conference at Chiswick when Mr. Pearnon of Chilwell, in a lecture, laid stress upon the way nurserymen were sometimes accused of supplying unsatisfactory fruit trees, while the cause of failure rested with the planter. That non-anccess in fruit caltare may not unfrequently be rightly attributed to either bad planting or inadequate preparation for planting, I think few will deny; possibly mistakes are mont often made in not taking afficient paina with the preparation. In commencing hardy frait culture, it pays to do everything connected with it thoroughly well; and the most important point that must not be overlooked, are firatly, to select a auitable site, and properly prepare it ; secondly, to purchase good treen of the best varieties; and thirdly, to plant them well, and protect them.

In dwelling upon this important sabject, I cannot do better than deacribe the manner in which the frait-garden here was formed and planted, particularly as the tref and bushes are making very eatiofactory progress. The site selected was an old pasture situated above the fog-line, opon a rather sharp S.S. E. slope, well sheltered from the north and east by higher land and trees, and fairly so from other quarters by trees. The noil is a good loam, inclined to be heavy, resting in some places upon a tony ubsoil, and in others marl. The garden, which is oblong in ahape, was made and planted in 1893; the work commencing in April, by draining the land with 3 inch tile drains, placed 3 feet deep, and 15 feet apart. This is a necestary preparation that does not always receive the attention it deservea. An instance of this came under my notice some years ago, when I was asked advice abcut some young Apple trees which were what was termed "going back." After atcertaining the nature of the noil, the cause of the unhealthy condition of the trees was attributed to deficient drainage. "Ob! that cannot be, just look at the fall in the ground," was the reply. A descent in land that possessen a tenacious ab-soil will not, however, ensure good drainage. Once the draining was completed, the land was trenched to the depth of 2 feet 3 inches in the manner known as bastard trenching-the top apit being lept upon the eurface. This proved a hard undertaking, for, as will be remembered, the nummer of 1893 wes very dry, and consequently, the coil was unasually hard. This dry atate of the weather, however, had a beneficial influence apon the work, both by weetening the soil and killing herbage; at the asme time, it kept the newlycaltivated land in a dangerously aerrated atate for planting, and in order to connteract this evil, and also break the cloda, a Cambridge-roller drawn by three horse was neveral time run over it. This done, another digging, thir time one spit deep, was afforded, and at it proceeded, the turf was well broken, and mixed through the soil-thus a satisfactory site for planting fruit trees upon was prepared.

Intersecting grase walks, the priscipal ones being 10 feet wide, and the others 5 feet, divide the garden into nix divisions, the two larget occupying upward of half the garden, and placed on the highent ground, being devoted to Apples. The next two, which take up more than a fourth of the pace, are planted reapectively with Pearn and Cherries, and Plams and Cherries ; while the remaining two, which are nituated on the lowest ground, are occupied by Carrants, Gooseberries, and Raspberries. The Apple , Cherries, Pearn, and Plame which are pyramidal and bash in form, are planted in squares, and are 12 feet apart. The Carrante and Gooseberries are in rows 6 faet spart, and the Rasperries are also in rown 6 feet apart, the plant being 2 feet asunder in the rows. It has boen remarked that the rown of Raspberries are needlenily far apart, but this is not to, for it was found to-day by meanarement that many of the canes of R. Superlative are upwards of 9 feet in length; at the same time they are clothed with
robust foliage, and bright red-coloured rind from base to top (good indication of the probable production of abundance of fruit next year), which could acarcely be the case if the row were appreciably closer tngether.

Planting commenced with the bush fruits daring the lat week in October, and was completed with Apples the second week in November. The trees, when received after a journey of about 140 milen, were unpacked, had their root dipped in water, and carefully laid in damp soil. The weather being favourable, and the ground in excellent condition, however, no time was lost in at once planting them in their permanent quarters. In order to facilitate this, the position of the rown had been previouely marked out, with pegs at each end, and a line had also been prepared by being knotted to indicate accurately when atretched each tree's atation. In proceeding with the planting, the root of each tree were closely examined, when any broken or ir jured portion were removed by a clean cut made on the under aide. Pains were taken to spread the root. regularly, and keep them up near the aurface of the ail, which was pressed firmly about them. Any trees that required it were then staked, their bark being protected from injury from the ties by piece: of old indiarabber hone, and finally each tree wan accarately named, and mulched with farmyard manure. The only quarters that received manare, other than that employed an a mulching, were those occupied by Currants, Gooseberries, and Raspberries, and these had a dressing of decayed farmyard manure worked through the nurface noil. It may be mentioned that the only lossen that occurred in the plantation, which covers nearly three acres of land, were a fow Rasperry-canes. Thos. Coomber, The Hendre Gardens.

\section*{BOOK NOTICE.}

The Genus Mabdevallia. By the Marquese of Lothian and Mise F. H. Woolward. (Porter London.) Part VII. Price £I 10s.
The authors of this elegant monograph are getting near the end of their work. A notice to sabscribere inaued with the present part atates that the next number (Part VIII.) will, it is hoped, be the last. It will be well, therefore, to postpone any farther remarke antil the completion of the book, when we shall hope to review it as a whole. Suffice it to any that, with Part VII., the number of apecien and varieties depicted and deacribed is brought ap to eeventy, the recent decade comprising Masdevallia caloptera, M. gemmata, M. O'Brienians, M. pacbyura, M. porcelliceps, M. radiosa, M. triaristella, M. trinema, M. troglodyten, and M. velifera. With two exceptions, these are all species of the late Professor Reichenbach; and also, with two exceptiona, were first described in the pages of the Gardeners Chronicle. Several are very rare; and in at least three cases, Mins Woolward has been anable to obtain any record of the native habitat, which remains a trade secret-to the advantage of the importer, but seriously to the disadvantage of cience. A, B, R.

\section*{The Week's Work.}

\section*{THE KITCHEN GARDEN}

By Johm Lambert. Gardener, Powis Caske, Welehpool.
ABPARAQU8 BEDS.-Where Asparagu: is grown in beds, and the heads are preferred in a green natural state, the soil above the root will not be more than 3 inches in thickness. This may be forked over very lightly and carefully so that no roots are broken, to break up the hard aurface of the coil. The manure to be applied should vary according to the nature of the soil. If iuclined to be very retentive of water, use stable-dung and a mall quantity of light sandy soil mixed with it. This drensing may be made 2 inchen deep. If the aoil in already mufficiently light, afford the beds a good dremsing of cow-manare, which will enrich the mil, and also afford protection
to the roots from very severe front. Where a thick nurface of soil in kept above the roots for blanching purposen, some of thil may be removed by draning it with raken into the alleys, and the aurface brotem up lightly. Then apply a dreaning of manare, and leave the spare soil in the alleyn for an in the apring. If the beds are getting vir poor, some finely-crushed bones may be given at this season of the year, but artificial manama best applied to a crop when in active gromth. I Asparagas is grown on the single-row method the raiaed mound are apt to become bare tom autumn, owing to the heavy raint, and very leb forking will be required; the soil between then however, should be deeply broken ap, and ever tinh space between the row that is uned for a when cutting the produce. Drean the moundrim nice rich, frenh soil if they are too bare, and core them and the paces between with a good deming ol manare. No further attention need be give them till pring.

FORCING.-Preparations hould be mide for forcing Asparagus in proportion to requiremerte. Good roots for forcing may be prodaced in abouts three or four years, if seed be sown in rich, deep wilh and good dreasings are afforded frequently. Booto thas grown will now be ready for lifting. Not mur gardens are provided with permanent beds for forcimg every alternate or every third pear, and heated is hot-wates nipes or manure. Such a method if, no doabt, the best, because the roots are not disturbelin the least, and being forced gently, they uaally prom atiafactory. Bat, on the other hand, very gool Asparagus can be obtained from lifted plants pronided they are atrong. The first atep in the preparation should be the mixing, turning, and wetting of frelk table manure and leaves. The material ahoild then be tarned several times at intervals of about four dy or so. A pit of suitable size may be filled with thin, or failing pits, auch places as Cacamber or Tonts houses may be used for the purpose. Tread in material down well, and when the heat begin to decline, cover with from 3 to 4 inches of soil. Thes place the Asparagas roots so that they juot toocis each other, and cover them with oil to whaterer depth may seem desirable, and if blanched headoan preferred, the light may be excluded. The mafice of the soil should not be more than abouts 3 inches or from the roof glase before it is notian by sinking. Kepp a test-atick or thermometer plinge in the bed, and do not allow the heat of tha matur to rise too high, \(75^{\circ}\) is warm enough, bat \(10^{\circ}\) hothel will not harm them. A single row of pipes wim afford what atmospheric heat may be required. When water is used, it abould be tepid. Atter lif "grass" appears, keep a moist-growing atmopphat of about \(55^{\circ}\). Another pit should be filled in ame way to come into catting when the fint il exbausted. A bed will not last good for a looke period than aix weeks, and it will commence to bees in about two weeks after patting the roots into in Bottom-heat may be obtained from hot-water piph and very good reaults are obtained by thin matis when care is used, but such heat is more app flactaate than that furnished by a bed of manure, be latter affords a moist heat, whilat the formert dry, unless evaporation pans are used undernemin the bed, or the pipen are immersed in watar anderneath. Keep

\section*{PLANTB UNDRR GLASB} By W. H. Bmiti, Gardewer. West Deas Park, Cuichirir
LATE-FLOWERING CHAYBANTHEMUMG.- When many flowere are required for cutting in thich font of December and January, the varieties which fal, ad ate, or which can be retarded, are very furnimbed especially if large vases have to be kept which we with fowers, for an mont of the flowers wich forced have ahort atalks, the long atemmed for w. anthemam blooms form capital materisl disbadeden These late varieties should not be much dison mor being then much more gracefal, and therefore of ase for decoration than the larger heavier bloo the house having a northern aupect is availabing n arietie may be retarded in their flowerins easily.
whenever there is no frost or it it not air gist When there in much dampness in the all fre-heat ahould be afforded, and air in amall given by the top and bottom ventilators Varieties for very late flowering ing, Lady Lawrence, Ethel, Mdile. Lacroí Ling. Lady Cawrence, Eolo pellow coloure

Symond, which is one of the bent for cutting parpones.

TREE CARNATION8.-These plante now coming into flower abould be afforded weak manure-water in liberal quantities. It need not always be applied in that way, as a small quantity of fertiliser (Clay's or other) may be aprinkled on the surface of the soil, a job wh ch may be readily done when tying and rearranging them. Carnations now require very careful watering, and to be kept free from aphis by occasionally fumigating the house with tobacco or the XL All compound. A genial growing atmoaphere, and a temperature of about \(50^{\circ}\) by night to \(55^{\circ}\) by day hould be maintained, with air left on at the apper and lower ventilators. Ia bright meather a light syringing between the pot will help to keep red-spider in check.

CAMELLIAB. - Those plante which have begun to open their flowers should be rather liberally anpplied with water at the rootn, provided the drainage is good, and they are not over-potted; weak manurewater may also be occasionally afforded them, that in, if thry seem to needit. Potted plants which may be losing their flower-bads, hould be placed for an hour in a tob of water, 0 as to enable the water to reach every part of the ball, the centre part having probabiy become dry.

AURICULAB.-These plante will now require very little water, but plenty of air, whenever there is no froat. Ia wet or very damp weather, it is a good practice to tilt the frame light at the top and bottom. The frame sbould face the euth, and be covered with mata in case of severe frost.

LILIUM LONGIFLORUM VAR. HARRIBI. - The bulbs for early forcing thould be parchaned forthwith and potted up, placing each balb inan 8 inch pos, iu turfy Jusm, leaf-mould, cow-manure in a dry atate, and coarse saad. If the oil be moderately moist, no water will be needed before the roots permeate every part of it. Plange the potted bulbs in a cold frame, in cocoa-nut-fibra refase, covering them to the depth of 5 inches. Hare they mact remsin until the ahoot is about 1 inch long, when it will be found that the pots are filled with rooti. The plants thould then be gradually inured to the light, and eventually pat into a warmer temperature.

DAPHNE INDICA ALEA,- A few of the plante may bo placed in a temperature a little warmer than that they have been used to, and not forced too hard, or the plants will be sot to lose their flowerbuds. A temperature of \(50^{\circ}\) by night and \(55^{\circ}\) by day will be afficiently warm.

\section*{THE HARDY ERUIT GARD界N}

\section*{Hy W. Pope, Gurdsner, Highclers Castle, Newbury.}
sELECIION OF FRUITS FOR BMALL GARDENE.
The select list of fruit given bsiow is intended for the ase of those who may have amall gardens, and are desirona of planting a few well-tried varieties of each kind, to afford a useful mupply for demert and calinary parpones.

Dessert Apples.-Irish Peach, King of Pippins. Cox's Orange and Starmer Pippins, Claygate and Adam's Pearmains; of culinary varieties, Kes wick Codlin, Stirling Castle, Carlisle Codlin, Annie Elizsbeth, New Northern Greening, and Damelow's Seedling.

Plums.-River' Early Prolific, Greengage, Kirke't, Victoria, Monarch, and Coe's Golden Drop.
Pears.-William: Bon Chrétien, Fondante d'Automne, Marie Louise, Doyenné du Comice, Maréchal de la Cour, Glou Morcear, and Josephine de Malines.

Cherries.-May Dake, Bigarrear Napoleon, Elton, Belle Magnifique, and Morello.

Apricots.-The Moor Park.
Figs.-As a trustworthy Fig in the cath, Brown Tarlisey is the best.

Gooseberries.-These may consist of Early Sulphar, Whinham's Iaduatry, Red Champagne, and Red Warridgton.

Strawberries.-Vicomtense H. de Thury, President, Ryjal Sovereign, and Waterloo.

Currants.-White Datch, Red Datch, Raby Castle, Lee's Prolitic Black.

Raspherries.-Superlative, and Yellow Antwerp.
Nuts.-Kentian Cob or Lambert's Fulbert.
Peaches.-Alexander, Grosee Mignonne, Noblesse, Bellegarde, Albatrous.

Nectarines.-Pitmaston Orange, Balgowan, Stanwick Eiruge.
Of these the Peaches, Nectarines Apricote,
and Figs, of course, require the thelter of a wall, one either west, south - went, or south, being suitable; all the rest may be grown in the open. either as pyramids, bushes, espaliert, or atandarda, at the cane may be.

FRUIT FOR MARKET PURFOSE8.-In planting for market parposer, a multiplicity of sorts ahould be avoided, and only thone selected which are known to be prolific, coming quickly into bearing, and of taking appearance, either in regard to colour or mize-colour rather than good quality being sought after in the majority of casee. A few that generally give a fair return are, of Appler, Mra. Gladatone, Devonshire Qaarrenden, Worcester Pearmain, Lady Sadeley, Red Aetrachan, King of Pippins, Cox's Orange, Gascoign's Scarlet, Warner's King, Ecklinville, Annie Elizabath, Lane's Prince Albert, Wellington, and Northern Greening.

Pears.-Williams' Bon Chiérien, Louis Bonne of Jersey, Bearś́ Clairgeau, Jargozelle, Fertility, Doventé du Comice, Binhop's Thumb.

Piums. - Rivera' Early Prolific, Mitchelson's, Denyer' Victoria, The Czar, Belgian Parple, Pond' Seedling, The Sultan, Monarcb, Belle de Septembre, Coe's Golden Drop, Prince Eaglebert; and Damson the Ciitenden.

Cherries.-Frogmore Earlv. Bigarreau Napoleon, Werder's Early Black, Bille Magaifique, and Morallo.

Gooseberries. - Whinbam's Induatry, Keepaake, Crown Bob, Red Warrington, aod Early Sulphar.

Currants.-Lee's Prolific Black, Black Champion, Red Dutch. Rebby Castle, and, if a white variety be required, White Datch is the best.

\section*{THR FLOW \&R GARD展N.}

BV BaILEY WADDs. Gardener. Birdsall Gardent, Fork,
HERBACEOUS BOROER8.-Tbe making of new herbaceous perenaial borders, ant the rearrangement of old ones, may now be proceeded with when the weather permits. New border should be arranged when ver possible, so at to have a broad walk on when eide, being more attractive in this way than when there is only a walt on one side. Besides, it gives more space to diaplay the planta, and the border need not be of an inordinate length. Now around, if of a strong loamy or clayey natare will be improved by charring the top apit; and it should be well drained and afterwards trenched 2 feet deep, mixing with the staple a good quantity of road grit. leafmould, and hort manare; but on the other hand, if the soil be light or aandy, or rests on sand, gravel, rock, \&c., artificial drainage may not be required, but a mixfure of atrong loam, cow dung and hort manure will improve its holding qualities-shese should be incorporated with the ataple on treaching it. When a new border is made on opponite aides of a walk, the width of the walk should determine that of the border on each ide, as it does not look well to have borders of less width than the walk. As a rule, a border \(y\) feet wide is sufficiently wide, for showing the plant from the walk, at a greater width does not allow of the plant at the back of it being seen to advantage. As a margin to a border ranning through a kitchen garden, a Rose fence about 5 feet high at the back maken a nitable dividiag line. For the purpose of the fence, atrong Larch polet, or a diagonal rastic lattice constracted from the ame, answer well. This may be planted with a \(f \in w\) climbing plants, Honeymacklen, Clematis, and Ter and other varieties of Roses. I am of the opinion that no kind of permanent edging should be used in the front of the borders, these being in the way of the flowering plants, and the stiff outline poil the effects of a border of mixed flowering plants. Nothing impoverishes the soil more than Ivy, Yeww, \&ca, and such edginga form the best harbour possible for the all devouring slugg. Grass-edging, when the turf is in parfect keeping, form the most appropriate margins for a border situated in a flower garden or pleatare ground. A border gives the most satiofaction when ite position is well sheltered, but exposed to the sun, and it is backed by shrubu. The planting in regard to the height of the plants, and the colonr of their floweru, and the seaton when they appear, is \& matter for careful atudy; and to enable one to manage it readily, a plan should be made to acale, and the position of each plant and group of I lants indicated on it. No two men will plant border just alike, and ecarcely any rules are of service, excepting very general oner. For inatance, it may be proper to plant bold clumpe of thowy plant at irregalar dis-
tances apart thronghout the borders, itarting at the back with Hollyhocks. Dellhinium Phlozes. Helienthas, Eryagium, Giant Fennel, Golden Rod, \&c. Rbeam palmatum, Kaiphofies Uvaria and glanceacens, and aimilar tall-growers: following these with Pannia berbacea is variety, Spirmes. Perennial Asters, Iaula glandulos, Radbeckias, Poteatilles, Pentstemons, the taller speciea of Campanula; Iris, Caltbs paluatris. Trollias earopma, Anemones. Hemerocallie in variety, and gradaally finish off with quite dwarf plante at the front.
At the present time divide and plant clamps of old. atrong-growing Pwonies, Phloxes, Helianthus, Iris, \&c., Which if planted at this season soon establish themelves in the apring, and flower atisfactorily in their meason. Plants in existing borders should have all dead and decaying foliage cleared off them, and the soil carefally pricked over with a diggingfork, following this operation with a dressiog inchen thick of well-rotted atable-manure and losm. The taik of electing the plants for filling a new border of any considerable siza is one of great interest, and thone who may not have had much experience, will have to devote a good deal of care and discretion to the matter.

\section*{FRUITS UNDER GLASE}

By b ceard Parere, Gardener, Goodwood, Chichenter.
the cucumber. house, -In keeping Cacumberplante in health and fraitfulnes, two fact should be borne in mind, viz, light cropping and a regular temperature. Moreover, there is always, during spells of fromt, danger from affording too great an amoant of artificial heat so that the night temperature often exceede that of the day. To allow this diaparity of hent to occur causes a weak growth in the plants, and leads to that pest of the Cacamber-house, red spider, making it apparance. Less syringing of the foliage ahould be done an the winter advances, and the almosphere kept moist by the use of evaporating pans, and by damping the walle and patha oceavionally in the daytime. Almost daily attention to sopping the points of the shons at the accond or third leaf is necesary; and the shoot should be thinty trained over the trellis, and no crowding allowed, or the foliage will soon become of a pale green anhealthy colour, and the flowera fail to set, or the fraite become deformed. Slight surface dressing of some fairly rich, friable compost should be afforded at intervale of ten day, the soil used being readeres warm by kepping it in baskets over the boilers. Weak liquid-masure afforded once a week is of mach value: bue if soot-water be used, it should be very weat, or the roots may be iojared by it, and the fruit made bitter. The day temperature of the Cacamber-house or pit may range from \(6 y^{\circ}\) to \(72^{\circ}\), and that of the night from \(63^{\circ}\) to \(65^{\circ}\), roof coveringe being affurded daring severe frost, as advised by zee in last week's calendar. Fresh air in mall quantity is always beneficial, and may be admitted for a short time daily, if it can be done without causing a check to growth.

TOMATOB - These plante have made good progress.and at the present time they have plenty of fruita in different atages of development. Since they were placed in the house, a gentle warmth has been maintained in the hot-water pipes, and abundance of air afforded by day, with the result that growth in stardy. and the plants have continued to produce flowers, and set them. Applying water to the plant requires care, or the soil will become too moint to ait their well-being. As soon es a frait begins to colour generally all over, it should be removed, that not taxing the atrength of the plants too moct. Con tinue to ventilate the house freely in favourable weather, but do not let the night temperatare fall below \(50^{\circ}\)

\section*{Variorum.}

Phenomena of Nature.-We hear of new Potaton and Scrawberries at Salcombe; and I know of one other place in the neighbourhood where new Potatos and Green Pean were enjoyed on Friday lant. Is it not equally unutusl to a brood of newlyhatched wild ducks on a pond, partially covered with ice on Ostober 29, while swallow-two only-were fitting over the surface in the aun an if it were September? It atruck meas very phenomenal-or, rather, Nature alightly out of joint. Ia it so? A. C Oct. 31, in The Weatern Morning News.
appointments for the ensuing week.
MEETINGS.
saturday,
TUESDAY,
Nov. 9-Royal Botanic Society.
Nov. 12 Royal Horticultural Society, at the Drill Hall, Westminster.
SHOWS
MONDAY. Nov. 11 - Floucester Root, Fruit, and Graid,


OORREOTED AVERAGE TEMPERATURE FOR THR ENSUING WEEK, DEDUCRD FROM THE OBSERVATIONS OF FORTY-THREE YEAKS, \(\triangle T\) OHISWICK. \(-42^{\circ} .6\).

National Chrysanthemum Exhibition.

The great exhibition of Chrysanhas passed, and the exoitement cessarily attending competitive displays of this character is now transferred from the Metropolis to provincial towns, where it will surely be maintained in varying degree, until the remotest part north of the Tweed has enjoged in its own degree of fulness the reign of the Autamn Queen. No such exhibition as we witnessed during the present week at the Royal Aquarium oould have been made in a season unpropitious to the growth of the Chrysanthemum, and that 1895 has been a favourable year has been clearly proved.

The Japanese section, whioh andoubtedly continues to be the one most popular with growers and with the pablic, was magnifioent. The bent oolleotion inoluded a considerable number of novelties, proving that in regard to varieties, progress is still made in the development of larger and better flowers, for the grester part apon types which have existed for some time. A word of warning is needed loy raisers and judges alike, that mere size of bloom, unaccompanied by refinement and a good habit of growth, should not be enooaraged, though in this respect there would appear to be greater disorimination exeroised than was the case some time ago.
Incurveds were as well grown years ago as we grow them now; but the quality of the flowers this year is, we think, decidedly better than it was last season, both in depth and finish. Apart from exhibitors, the general grower has logt his
enthusiasm for this seotion, whioh is probably becanse very much greater oare and skill are required to bring the blooms to perfection than are necessary in the case of Japanese varieties. A badly-grown incurved flower is by no means handsome, but is much less so than a Japanese bloom with incurved petals. On the other band, a perfect incurved flower is not devoid of attraction, and it is certainly worth enoouragement as being a very distinct type of flower. A few new varieties are exhibited this season, but the additions are fewer in comparison with the other types. In this respect it is satisfactory that the National Society recognises the desirability of encouraging the cultivation of every form, and whether or not they are to be seen in general collections, the Pompon, the Anemone, Reflexed and Single-flowered varieties, may be always found at this exhibition in more or less, though generally satisfactory, degree of perfection. Such types are pretty, and at least afford some relief from the larger and more showy varieties. The single - flowered ones especially are very attractive, and growers would be wise did they give them a little more consideration than is their wont.
Trained Chrysanthemum plants have always a place at the Aquarium Show, and to many persons they form attractive exhilits as representing a great deal of oareful and skilful work. A well-grown natarally-trained bash plant, not mercilessly, bat moderately disbudded, is however, an equally pretty objeot.
The table decorations and various devioes for exhibiting the decorative usefulness of the Chrysanthemum were deserving of great praise.
It is interesting during a seriek of years to obseive how different growers come prominently to notice, and for a time hold the field with conspicuons success. At the show under notice, the leading class for Japanese and that for incurved flowers were easily taken by a young gardener who comparatively recently commenoed to exhibit. The Societies' oompetition was won by the Southgate Chrysanthemum Sooiety, and in this oase also the whole of the forty-eight blooms were farnished by the same grower. The two leading classes at the Crystal Palace this year, and the same classes at the Aquarium last year, were spoils to the same exhibitor. In 1893, he took the leading class for incurved flowers at the National Society's show, but not that for Japanese. Blooms from the same collection will, we believe, be shown at Edinbargh, with what success remains to be seen.

Paris Notes. Of all similar gardens known to easily take first prize for town-squares. It has more than once been mentioned in these columns, but its gramy mounds, noble trees, and interesting flower beds, are always charming. The constituents of some of these groups may be enumerated. One consisted of a bed of Rhododendrons, with tall deciduous Magnolias interspersed. Another shrubbery consisted mainly of purple Hazel, kept topped, intermixed with Weeping Silver Birch, surrounded by a line of Scarlet Salvia (S. elegans), and bounded by a mired edging of Tagetes, zonal Pelargoniums, Ageratom, Verbena, Golden Feather, and other plants of like character. Another very effective arrangement was composed of a centre of tall Papyrus (Papyrus antiquoram), surrounded by Cyperus alternifolius and Panicum plicatum, and with an edging of Centaurea candidissima, alternating with plants of pink Iresine, An adjoining bed was componed entirely of Cannas,
and the contrast between the two was 2 lightful. The frost, however, had given notion that it was time to take up the Canom and the hint was taken in the last week of October both here and in the Jardin des Plantan
Generally speaking, there does not appase to Le much novelty in the way of garden decoration The beds near the Louvre are mach as the were in the days of Lours Philipps; and the same fine "sub-tropicals" which were used in th days of the Empire, are still employed elseerben, such as the fine Solanums, Wigandias, Ferdinem Musa-Ensete, Phoenix, \&o. These are zud plants for the parpose, but we have got man or less accustomed to them, and it is th to look about for others. Our own gardens and parks are not so much, if at all behind non, unless it be in grouping and in the arrangemant of colours, points in whioh the tasto of the French is shown to a degree which we annot or do not rival. Various Bamboos are coming into use, and very distinct and beatifal theo are.
It is obviously possible to have wo mooh od a good thing. "Ondulations" are everymbern advertised in Paris by the coiffeurs for the beoneil of the ladies, and the landscape-gardeners alo indulge to the full in this pleasing derico. It is a question, however, whether it is not oresdone, and whether in a small town-square or gar: en surrounded by stiff architectaral lines, 2 style of landscape-gardening more appropriste to the genius loci, would not be preferbibe Why, for instanoe, reproduce in the small gurdem of the Elysés the swelling mounds of the Puo Monceany?
The Limes and espeoially the Horse-Chestnatsin the Paris streets present a remarkableand in many oases a miserable aspect. In oonsequenoe of the season they have made a second growth, and whilst in the case of the Horse Chestnat, the drought of autumn seems to bave scorched be young growth to tinder, the frost of the lat fert days has seriously hart the fresh green of the Limes. What will be the result next springit will be curions to see.
However exoellent the Plane may be as stonn tree, it has its defeots. In the first place it in foreat-tree, and as suoh is out of place in astref avenue, where it speedily grows too big and bat be tortured into shape and out into moderte dimensions. Then, as in the oase of onf om Thames Embankment, the planters planted them much too closely, or, which comes to the same thing, they omitted to thin them sufficiently early, and dom many of the vaunted street avenues of Paris hior rows of scare-orows or clothes-props. Ronatb headed trees of moderate height and medium dimensions are generally preferable for stree planting, but they are not easilg athire able, as the nurserymen do not keep them in stock. Cratægus linearis (if that be the right name?) and the ordinary round-baseded false-Acaoias are well adapted for the purpoue Pyramidal trees may also be employed with ad vantage. Pawlonias are much used in Puilin bat would be hart by spring frost in Londen. Ailanthus makes an exoellent spreading treed by the Seine, and does not grow too large in thee oircumstances.
Here is a hint for our florists and marledr dealers. Along the quays not only may melh grown plants be bought for a small prioe, bou also small backets (say, half a bushel) of goo potting-反oil oan also be obtained. All who live is to do with amateur gardeners, or who 1 is is great cities, well know the difficulty tbina bre getting proper mould. The Parisians solved the diffioulty.
The meeting last month of the five Acaderid


Platyclinis Giumacea in Sir Trevor Lawrence's Garden, Burford, Dorkisg.
which conjointly form the Institute was a grand spectacle. The President of the Repablio was surrounded by the ministers and ambassadors in full tenue, the Academioians wore their preenembroidered coats and cocked hats, the doctors and professors their gorgeous and varionslycoloured robes. Horticulture was represented by M. Lion Sar, the President of the National Horticultural Society of France. English science was adequately represented by the President of the Royal Society in doctor's robes, and hy several other representative men. The whole soene greatly resembled an Oxford Commemoration, but with this very important difference, that whilst noise and rowdyism charaoterise the behaviour of too many of the undergraduates in our universities, the students gathered at the Sorbonne were quiet as mice in spite of the provocation afforded by an outrageously long address from M. Jules Simon, which it would have been preferable to have taken as read, as when read it proved most interesting.

Platyclinis (Dendrochilum) alumacea. -The aubject of our Sapplementary Illustration this week, Platyclinis glamacea, is sufficiently represented in collections in this country to be well known and highly appreciated. When properly cultivated, few specees of Orchids can rival this apecies in grace, the plant being of a compact habit of growth, and carrying its pendulons crowded recemes of flowers well above the foliage. The abje cs of our illuatration is from the collection of Sir Trevor Latrresce, Bart, Barford, Dutking, and carried more than one handred flower-apikes. The cultivation of the plant is comparatively eary, and it may be grown either in a basket or welldrained pot. In potting, a layer of epbagnam-mona whould be placed on the crocks, and the plant raised well above the rim, asing a compost consiating of equal parts of peat and aphagaum-moss. Platyclinis glamacea is at rest at this season, and should be accommodated in an intermediate-house; and when growth recommences it should be removed to the East Indian-house and placed near the roof-glase. The plant requires, when growing, to be liberally supplied with water at the root and crerhead, and the anderaides of the leaves occasionally ayringed, to dielodge red-upider, with which it is very liable to be infented.
royal horticultural society.-The next fruit and foral meeting of the Royal Horticaltaral Society will be held on Taesday, November 12, in the Drill Hall, James Street, Victoria Street, Westminster; and at 3 р m. a lecture' will be given by Di. Maxweli T. Mastres on "Sabstitates for Larch." The committees will meet as asual at 12 o'clock.

A History of Enalish Gardening - The Hon. Miss Alicia Amhersts history of Gardening in England, 1 vol., 8 vo , with sixty-tive illustrations of old Eoglish gardens, will be pablithed by Mr. Quabitch towards the end of the preaent month.

National auricula and Primula Society. -The annual general meeting of this Society was held in the rooms of the Horticaltaral Clab, Hotel Windsor, on October 30. The expenditare for the year was fif \(14 s, 4\) d, against receipta from abbecriptionp, £68 13s. 6d. The deficiency of £9 10s. was taken from the reserve fand, which now stand at \(£ 118\) Gd The exhibition will, with the permistion of the Council of the Royal Horticaltaral Society, be beld in the Dill Hall, Jome Street, Westminster, as heretofore. A fall statement of accountr, and schedule of prizes, will shortly be pablished. J. Douglas, Hon. So o
national Carnation Society (Southern Section).-The annual general meeting of the Southern Section of the National Carnation and Picotee Society was held in the rooms of the Horticaltural Clab, Hotel Windaor, by the permission of the members, on Qutober 30. M. Martin

Rowan presided, in the unaroidable abrence of Martin Smith, Eqq., Prenident. The financial atatement showed a balance in hand from lat year
 clasive of apecial prize ; entrance-feen, 78.6 d . ; total, £401 168. Td. The expenditare was £205 17 s . \(6 d\), leaving a balance in hand for the present year of \(£ 195\) 193. 1d. Twenty-aix members have been loat during the year by death and withdrawal. Againat this fifty-eight new members are added. It war decided to hold the next exhibition at the Cryatal Palace aboat the third week in Jaly. Mr. Jas. Dovglas is the Hon. Sec.

The Magpie Moth.--This pretty bat destructive moth (Abraxas gromsulariata) forme the subject of a leaflet recently insued by the Board of Agricaltare. The caterpillars of this moth occasionally cause aerious injary to the Gooseberry and Carrant cropu. They are sometimes also destructive to Apricot trees, and are frequently found on the Sloe and Blackthorn. These ceterpillara are often confoanded by casaal observers with those of the larva of the Gooseberry and Carrant aswly (Nematas ribesii), bus they are essentially diatinct. Copies of thia leaflet are to be obtained, free of charge and post free, on application to the Secretary, Board of Agricultare, 4, Whitehall Place, London, S.W. Letters of application addressed need not be stamped.

Chrysanthemums at Ravenscourt Park, Hammersmith. - Now that most of the parks under the control of the London Conuty Conveil have saitable atructures for their annual diaplays of Chrysanthemame, it would be a real boon to Hammermith (the home of the late John Salter. who did so much for the lower), with its 105,000 inhabitanta, to have something more worthy of such a progrennive borough than the present antiquated little conservatory attached to the library, and which contains abjat 150 plants, of good sorta, but grown and flowered under difficalties by Mr.W. B. Gingelle, the superintendent.

Chrybanthemumb in the East of London. -Twice a year, in association with the sammer exhibition at the end of Jane, and the Caryanthemum how which is hald in the early days of November, the committee of the People's Palace Horticaltaral Society offer prizes for the best-kept and atocked greenhoase. Ia each case, and especially so in the namer, a large number of entries is made; and in connection with the Chryanthemum show, some twenty entries were sent in. Saeing that the range of the area of the cumpetition extends southwards to Nen Cooss, then aloge the north side of the River Thames throuzh Stepney to Limehouse, Puplar, and on to Cabitt Town. Canning Town, then to Siratford, Lagton, and Walthamatow, and then from Victoria Park to Whitechapel, it is obvious a considerable space has to be travelled over in making the awarda, and a whole day is consumed in doing so. A large number-indeed, almost the whole of the greenhouses submitted for competition, are of home constraction, mall, more or less artistic in denign, but in which some excellent plants are grown despite antagonistic surroundiage. Ia order to place the competitors on a somewhat equal footing, it has been found necessary to make two diatinc: clanes-she one confiaed to the more crowded neighbourhoods foand in Mile Ead, Bow, Bardett Road, Siepaey, Limehouse, Cabitt Town, and such denvely-popalated neighbourhoods; the other class applying to themore open neighbjurhoods, auch as those abatting apon Victoria Park, as North Buw, Plaistow, Layton, and Walthamitow. It would aurprise a etranger to observe how generally the Carysanthemum is grown under glars, in atructures heated in a few instances by hotwater pipes or flues, and in many by oil ntoves. Some of the cultivators leava home at an early hour for the City, and do not retura till evening, having but little leisure to attend to their plants. Others follow avocations clone at home, and can give attention daring the middle of the day. The favourite plants of the Eantender, in addition to the

Chryanthemum, are the Tomato, Fachia, Zonal Pelargoniam, Mlumbago capansis, taberona-rooted Begonia, Anthericum variegatam, some excellent apecimens of which are grown; Ricinus, Ficus, Aralia Sieboldi, Cacti, varioun Ferna, Coleus, \&c., the choice being a very wide one. Tae Poople's Palace Horticaltural Society, by meant of its exhibition and lectures, is giving an immense impetas to plant cultare eart of the City.

People's Park, Devonport.-This beantifal park, acquired a few yeara ago from the War Office authorities, is now the freehold of the Corporation of Devonport. The total cost was somewhere aboat \(£ 10,000\). With charscteristic public apirit, the Corporations of Piymouth, Stonehouse, and Davonport, have been liberal in laying-out their new posseation, nor did they limit the carrying out of the work to local effort; for while the actaal laying-oat wat executed by local labour, the plan was furnished by and the supervision of the work entruated to Mesers. Robert Veitce \& Son, nuruerymen, Exeter. The park opened on Monday, October 28, by the Mayor of Devonport, Mr. J. Beigat James, in the presence of a large and infuential assemblage of the citizens and borough officials. To commemorate the event a Qaercas Ilex was planted by the Mayor, who, borrowing the language of another craft, declared the tree to be "well and traly planted." A public luncheon followed, at which Lord St. Levan (the Lord of the Manor), General Sir Ricesed Harbison, Dr. May, the Mayor, and other pablic officials were apeaker. The park is a great improvement and attraction, and ita excellent situation bas been mado the most of by the landacape gardener.

Suicide in Kew Gardenb.-Oa Taeiday evening, November 5, at the Charch Room, Richmond, Mr. A. Braxton Hicks held aa inquiry with reference to the death of Mrs. Lucy Maxwell Br walow, aged sixty yeara, lately reniding at Eze View, Alphington, near Exeter, who was found drowned in a pond in Kew Gardens, in front of the museam. on Sunday mornivg. Mrs. Richards, the wife of civil engineer, of 31, Gloncenter Street, Warwick Square, S.W., stated that the latter was the widow of Edward Maxwell Brownlow, of the old Eart India Company's Navp, and who had coms up to London to conault a appcialist, and by whose advice she went to stay with a friend at Kew Palace, in order to get away from the noine of London. Evidence was given that on Sunday morning she was misting from her room, and a rearch was made. The drawing-room window was open, and there were indications that deceased had leaped oat, and climbed over a fence \(5 \frac{1}{2}\) feet high, and thas got into the gardans. Her body was found lying in the water 9 feet from the bank. The jary retarned a veroict of suicide while temporarily insane.

The Agricultural Department in Abeqdeen Univeraity.-The firat, and an important, atep toward the conatitation of the Agricaltaral Department in Aberdeen Univernity war made on Monday, the 4th inat., by the appointment of Mr. James Wilsoy, B.Sc., Lectarer in Agricaltare, Uaiveraity College of Wales, Aberyatwith, to the Fordjce Lectureship on Pribciples of Agriculture. The appointment is in form for a year only, as the fonds at the command of the University anthorities being in the nature of annual grants, it cannot bo put ou a permanent footing. With efficient teaching in the different branches of the zubject, Aberdeen University should form an excelleats centre of azricaltural education. Under the new arrangement, the Fordyes Lseturesh has been very conaiderably enlarged in its acopt and inatead of \(£ 40\), an formerly, the salary is now £́ju0.
"Guide Prati ue de l'Amateur de Fruits." -In this work of the nursery establishment of MM. Simon Lotis Fbeibes, of Metz, in given an account of the calture and a description of the different kinds of hardy fruite forming the pomological collection of the nursery belonging to the brothera Simon-Lours, classed according to their merit. An alphabetical list accompanie each section, giving the syonyms
of the varietien in Frencb, Eaglisb, and German. The descriptive matter attached to each variety of frait is safficient for identification, and the number of varieties described is enormons. As an instance of the thoroughness with which the identification of aynonymous varieties has been done, we 6nd the Pear Fondante du Bois credited with 61, and Doyencé Blanc with 84 synonym!

The Profes8orbhip of Botany at Cambridge. - Profensor Marshall Ward has been - lected to supply the vacancy caused by the death of Professor Babingtons. The Univeraity is to be congratulated on this appointment.

\section*{Scotland.}

NORTH OF SCOTLAND RUOT, FRUIT, AND VEGETABLE ASSOCIATION.
Tee annual show of this Association way held on Saturday, November 2, at Iaverarie, and, so far as the number of entries is concerned, it proved fally up to the avarage of previous years; and the fact that over 600 entries were made, shows that there is no lack of vitality in the Siciety. This year the Association has atarted ander new auapices, Mr. Alexander Giejg, Paradise, Iaverurie, having taken charge of atfics for the first time as secretary and treasurer. His arrangements on Saturday were quite tatisfactory, working an they did with harmony and moothnem.

\section*{Fbeit.}

Apples were a fiestrclas how. Here Mr. T. Midsleton, Monymuk; Mr. A. Middleton, Manar : Mr. C. Noonan, Iaverey; and Mr. A. Campbell, Thaisstone, gave a good account of themaelver. The display of Peare was considered to be over an average, the Ribatone Pippins, King of Pippins, Cellini, and Lord Suffield varieties being eapecially good. In this section, Mr. Oge, Fintray House; Mr. A. Gardiner, Kemnay House; and Mr. T. Middleton, Monymak, were the chief prize-winners. The colfretions of fruit were not 10 good, Grapen in most cases being indifferently shown. Mr. Ogg, Mr. T. Miduletud, an 1 Mr. Campbell, Thainstone, were the bett exhibitors.

\section*{Vegrtables.}

The display in this section was uncommonly fine, and the following caltivators are well worthy of menti.n for the excellence of their exhibitw, Memers. J. Ofston, Bourtie; T. Middleton, A. Middleton, W. Alexander, Cluny; John Brodie, Bogentarie; James Grant, Rothienorman; John Paternon, Sannybras ; and W. Mathieson.

\section*{Trade Notice.}

\section*{NEW COMPANY AT BOSTON.}

Wa learn from the Sheffield Independent that a now company is being formed ander the name of Mesnrt. W. W. Johnson and Son, Limited, for the purpose of acquiring the bueinese of Menmrs. W. W. Johnaon and Son, need growera, and wholemale and retail seed merchants, Boston, Lincolnshire. The amount of the share capital is to be \(£ 25.000\), divided into \(£ 10\) shares; 1750 preference share bearing interest at fire per cent, and 750 ordinary hares.

Scottibh Horticultural Association.A meeting of the Scottiols Horticaltaral Asmociation was held on the evening of the 5th inst. at 5, Sr. Andrew Square, Mr. R. W. E. Marray, Blackford House, the President, in the chair. There wan a good attendance of members. Mr. Robert Laird, the honorary mecretary, read a communication by Mr. Jamee Day, Galloway House, Garlientown, on the Pear. An intereating discussion followed the rending of the paper, for which Mr. Day whe given a vote of thanks.

\section*{LINARIA VULGARIS, WITH DOUBLE FLOWERS.}

Linaria vulgaria is a common species in Britain, but a doable form of the plant is extremely rare. A patch of the latter was discovered by Mr. Haddy, a reaident of Tavintock, on September 12 of the present year, growing about 3 milen distant from that town. There were at that time upwards of one handred flower-spikes, every one of which, the discoverer states, was similar in doubleness to the apecimen (fig. (6). If this character becomes fixed on caltivation, and the plant come true from seed, it will be a fretty addition to our border and rock plante.


Fig. 96--Linabia vulgaris, doubliw-flowered variett.
A, Spike, half nat. dize.
B, Bloom, \(\times 2\), showing central lobe of chiel lip greatly aztended and potal-lile st tip, with a three-lobed upper lip-interior growthe removed.
C, Same, showing interior petale-these are two to three-lobed, hairy lips three or four in number-sometimes with an abortive stamen attached.
D, Section, howing that the ioner growthe are petaloid stamens.
E, Inner growth, \(x\) t, mowing hairy lip-like growth, and aborted atamens.
T, A central hollow growth.

THE LADY MELON.
This illutration (tig. 47) is a representation of new Melon named The Lady, which has been rained by Mr. Owen Thomas, The Royal Gardens, Windoor, Mr. Thomas deacribes the fruit as of medium bize, cream-coloured, with a slightly netted akin, with palo, green flesh, tinted with red, which is very deep, and with an unuanally mall seed cavity. It is aloo free wetter and bearer, and Mr. Thomas conaiders it one of the best flavoured Melons.
Mesmra. Dicksons, of Chester, have been fortante in securing the entire stock of the seed, and purpons offering it for the approaching season.

\section*{Home Correspondenoe.}

THE PACKING COMPETITION AT THE CRYTAL PALACE 8HOW. - The judges who are selected by the Royal Horticultural society should have sofficient self-restraint to perase adverse comments on their award, some of which are beyond the mark, a for instance, those on p. 499 of the Gardeners' Chronich for October 26. I hhould, as one of the judges at the Cryatal Palace Show, be inclined to take no notice of those remarks, but as they are of a minleading character, I will, in justice to myself and colleaguen, britfly reply. I will take the first complaint, vit, that gardener are not considered to be capable judges of packing, but why not, and why should market-nalemen be preferred? Gardeners who have to pack a great deal of their produce are an capable as any saleaman of packing well for travelling long distances. Bat here my critic is wrong, for pardener were not the judges, but a gardener and a gentleman who may be termed one of the beth authorities on the subject, as he not only offereds prize for packing, but ent examples of properlypacked fruit; indet d, his froit, owing to the superior packing, oblains a better pice in the market that that of other g'owerf, and be grows largely for market. Another point is the distance the fraits are eent. I am not ane that Mr. Harris can mean this seriously, Devon and Corneall being as far to send as Ledbary, but I do not think the diatance in so important a point as my critic appeass to do. Most of us who have to send fruit, koow that it will travel 300 milea equally a well as 20 ; indeed, a short distance with several cbanges is worse than a longer with only one, op perbaps none at all. As regards the fruit here, 1 pack much of the choicer fruits, and they have to travel more than 300 miler, with three changet during transit, and therefore I know something of the zabject. Now, as to the two boxes tied together, the jadges at first were not sare if they did right in noticiog the boxes at all ; it may be convenient to tie several boxes together, but it is certainly not fair to fasten a heavy box to a light one; for instance, Grapes to Pears, or Apples to Peaches, fors by that means the heavier box, to a certain exteant protecta the lighter one. This matter was thratied out a few years ago at the Chiswick compedition and each package should be separate. Mr. Harrih would do well to look back at previous show, and I certainly asy that it is a fault, and we are alway to consider the market question entirej. The Royal Horticaltaral Society and othera gevic these prizes as apecial or open prizer, and my critic was 3 rd in one clam, and becanse he failed in tho others, he rushen into print, condemning the judga, who have other than the quention of packing for market to consider; and in a competition of this they must interpret the sense of the achedale, could have diaqualified some exhibitorn by resuon their not stating the cost of grading, boxes, wast and materials uned, and being thus lenient, we Mo condemned. If we had not considered cost, McIndoe would have been an easy lat, a his pad. ing was aplendid, but contly; whereas that of tighty Harris was the reverse, as his fruits were wedged in with mose, and, I should think, dime maler get at. Packing of this eort rendersit difficult for sherg men to judge of the quality of the fruit withont tatime, it out of the box, and this trouble, in a buty nous is not liked by the trade. Peaches packed in taker never have a nice appearance when the lid a farble, off, and wood-wool or paper-shavinge are prould al as it allows of ready inepection. I done readils, that the beat packing is that which is My colleugren and with the leat labour and conto My collof fo find who also judged with me last jear, expected wigh a diatinct advance; but if any, it
and I may inform Mr. Harris that the Peaches in the prize list, packed in mose, would have failed to receive an award had others complied with the achedule, as in one, a very good box, there was one bad fruit. We may have been wrong in our decision, but we think there is a much neater material for packing choice fruite than common mone. One of the Judges.
our begt and the most popular varieTIE8 OF APPLEB.-One of the mont pleaving festures of the recent great fruit show of the Royal Hi rticultural Society at the Cryatal Palace was the extrete popularity of our two best dessert Apples. The only two that exceeded a hundred diahea were Cox's Orange Pippin and the Ribston Pippin. The former was represented by 122 dishes, the latter by 111. The fact peak volume for the appreciation of these two excellent varieties, and almo for the solid advance of Apple caltare within the last quarter of a centary, and eapecially in the latter portion of it. King of the Pipping, too, fights atoutly for a apremacy that it seems to have attained at one time, and ataged ninetyeight

Golden Reinette among the aingle diahes. Can it be that the Ribaton Pippin to-day is valued at 122 to 1 as againet either of these threo goldea Apples? D. T. F.
fruitina of musa cavendibhil.-I have been repeatedly told that this could only be accomplished by planting out ; bat this is evidently an error, as we have succesafully grown and finished a 7 lb . buoch from a pot plant. The "fingers" weighed six to the pound, and the buach wat cut as aon as the leavea began to turn yellow, the fruit ripening about a week after it was cut. The fingers were short, plamp, and perfect in flavour, and the whole matter was so simple and succesaful, that the statement as to the prime necessity of planting-out is evidently a mistake. Beds in tropical houses are such an anmanageable harbour for vermin, that wo have done away with them entirely, and it is evident that they are not a necenity. The freah crop of Cocoa-nut is now in, and those who are interested in curionitiea will be plesued with the result if they obtain one with the outer hask on, place it on it aide, half buried in a large pot filled with Cocoa-fibre or mand.


Fig. 97.-the lady melon. (gre p. 554.)
disher. From this stage, size rather than aterling quality led through aeveral varietien, thas atrongly aaserting its force and power. Fortunately, however, it did not assert ite footing until the fourth place was reached, and then that wonderfal Apple whose origin and progress read like a popular romance, leaped up to an entry of seventy-nine dishes. This has proved a record year for this fine Apple, which by not a few is highly prized for eating as well as for cooking. The number of dithee rapidly fell from the seventiea to thirties, through such sorts an Warner'n King, Cox's Pomona, Lord Suffeld, Emperor Alezander, 50; Worcenter Pearmain, Prince Albert. Bismarck, Blenheim Orange, 32 ; Wellington, 29. From the thirtie we ipeedily asak to the tens, through such popular sorts as Tower of Glamis, Alfriaton, Margil, Lord Grosvenor, Qaeen Caroline, Gloria Mandi, Annie Elizabeth, Duchess of Oldenburgb, \&cc. Oat of the 200 varieties of Applem shown in the 2000 disher, forty-five varietien were hown in quantities ranging from ten dishes to over a hundred dishee of one sort; and, as we have already shown, and repeat with peculiar pleasure and emphaais. Cox's Orange Pippin, the Ribston Pippin, and King of the Pippins, headed the liut. Over ninety Applea were also represented by single dishes; and it will atartle not a few growern to find Golden Pippin, Golden Ranet, and

If placed in a warm-house in any corner, or under the stage, it will start growing in about five or aix months; when about 2 feet high, it maken an exceedingly handsome and carious decoration for an entrance-hall daring the summer months. Thos. Fletcher, Grappenhall, Cheshire. [Our correspondent's bunch was a very mall one, and did not weigh so mach as the tip of a bunch of a planted-out Mua, which gardeners uaally cat off because it seldom affords fruit of creditable size. ED.]

MORELLO CHERRY-TREES AT sCONE PALACE GARDENS, PERTHBHIRE. - With reference to the above, Mr. Ward and Mr. Fish will, I am sure, regret to hear that the apleadidly-trained trees which for many yearn adorned the north wall of the wouth kitchen garden here, and which they and no many other old Scone men look back upon wit an much pride and pleanure, died some years ago. When I took charge of the gardens fifteen y!ars ago, there was only one remainiag, sud, as it wat in a very sickly condition, it wat taken out and a young tree pat in its place. The wall at present is farnithed with clean healthy tree which bear abondant cropa of excellent fruit every year. With one or two exoeptione, they were all planted before I came here ; how long before \(I\) am anable to find out, bet they at present appear to be about twenty-five years old,
and at already stated, are in excellent health. Thin year the crop was exceptionally heavy, and the quality of the fruit above the average. As atsted by Mr. Fish, the aspect is almost due nortb, the divergeace being towards the east. The who'e wall was originally 15 feet in height, bat 3 feet wat added to the western balf when the large carvilinear orchard-house referred to by Mr. Ward was built about thirty yeara ago. The garden occapies low-lying aituation, the southern portion having a decided slope toward the north. The soil is a heary retentive loam, from 18 inches to 2 feet deep, reating on a bed of atiff yellow clay of unknown depth. In this soil and aitaation fruit trees and buahes are late in coming into blossom in apring. which, in oar somewhat changenble climate, is, in my opision, rather an adrantage. The drainage. which is very imperfect, consiste of old-fasbioned atone or rubble drains, about \(2 \frac{z}{3}\) to 3 feet deep, and placed at wide intervals. The border in front of the wall is 12 feet in width, and was planted with Lilies of the Valley about twenty years ago, and bas never been renewed since. They cover the sarface of the ground with a dense mas of foliage every aummer, and, like the Morellow, thrive admirably, and bear a heavy crop of fine atrong blooma annually. With the exception of careful pruning and training in the usual way every winter, the Morello are left pretty much to take care of themselves. No manare of any kind is applied at any time, ouless it be an occanional watering with liquid from the farm-yard daring the aummer months; but this is given mone for the ake of the Lilien than for the Cherriet. We have never examint the borcer to see where the roote are, but I have no doubt they bave penetrated the atiff clayey absoil long ago, and jadging from their healthy appearance and the fine crop they produce annually, ther seem to like it. We therefore let well alone. A. McKinnon.

A BOYCOTTED INDUBTAY,-When, some core of yearesince, the late Dr. Ball and his compatriot adventared into the north of France from Hereford, taking with them the finest specimens of Apples and Peart, and the cyder and perry produced from Foulinh orcharde, they left behind them a graod indantry, and abowed our French friend how very Jar we have adranced in both directions the growing of the frait and the manafacture of as good a pair of bevarages as it is possible to bring together for the benefit of either tired or thirsty soule, and yet, almost ever aince that time, not the demand or the liking for, bat the rale of both cyder and perry hat been dealining-and event now acarcely is the legend "Cyder on draught here" to be found panted on the windowe if London, or other, fublic bousez or reataurante. lostead ibereof, but in quite eparate nstablishmords, one can get queationable tea, coffee, and cocon, \&ec, and most unquentionable mineral waters-about which there is no doubt whatever, as being well saited for "scouring and dying," this latter, an industry not at all contemplated by the caterer for refreshment. And so it has come to pan nowadays that the hamble and thiraty way farer must cither go thirsty on his way, or assiat in swelling the "bills of mortality" all mawittingly. And why is this? why should the good old Eoglish beverages of cyder and perry be unobtainable in the land our Bang rules? The great maen of our old hontelrien - the modern pablic-houses are in the hand of brewers and distillers - are, an it is asid, "tied-houres" - and they will have no rivals at the bar. Only what they make and supply is allowed to be sold; and so cyder and perry are boycotted. In years past the Leginlatare has been doing what it can to make thing amooth for "the trade," and in their gratitude they shat out all attempts at competition. It is not for un to point the way to a remedy-chat lies not for un co poine the our province; wo can only wy that it is without our province ; wo can only syy shat is it worse than "hard" that oo promising a feld for spoiled, ruined for the sake of such a questionable abatitute. E.C.

VIOLET PEAFUME.-In a Tour Round my Gardew, by Alphonse Karr, tranalated by Rev. J. G. Wood, the reader is cold that " the Violet alone refues to ceparate its odour from itself; it it to be met with nowhere but in it own corolla. Perfamers are obliged to make, with the root of the Floreatine Iris, a certain false and acrid Violet odour, of which every returning apriag compel us to acknowledge the insufficiency." I would like to know if this in still the case, or if the difficulty han been overcome? William Cuthbertson, Rothesay.

RIPE STRAWBERRIES. - Some two or three weeke ago, 1 noticed in the pages of the Gardeners' Chroniole that a correapondent had been gathering ripe Strawberries from outdoor plants, which is certainly of extremely rare occarrence in the month of October. We have at the present time a magnificent crop of ripe fruits on two of our Strawberry beds, and hope to continue picking for at least another week, should the weather keep mild. Geo. Burrows, Berwick Gardens, Shrewsbury, October 21.

Chou de burahley. - Your correspondent, W. Joues (ou p. 463), drawsattention to this conical ahaped Cabbage. I have grown the vegetable for some yeara, bat more becanse it is a good antumn Cabbage than for obtaining - what shall I say, a CanliflowerCabbage. I have never detected the slighteat tendency to form a Cauliflower, though I have sown and grown it at all seasons. It in very hardy, and makes a good dich all through the early winter. The aecond week in Jane is a very favourable time to sow the weed. A short time ago, when visiting the seed grounds of one of our largeat seed-growers, I was informed that this vegetable was by no means a popular Brassica. I grow it largely becauas it is liked here, and is ready to cat at a favourable time for making a change. Oae cannot have to many kind of vegetables wherewith to make variety. W. A. Cook, Compton Basset, Calne.

Late raspberries. - I have never known antuma Rapperries so plenti'ul as they have been this year. We bave been gathering daily for some time, and even after \(5^{\circ}\) of fros \({ }^{+}\). This fruitis not only obtained from the so called antumn varieties, bat from eummer fruiters as well, notably Carter's Prolific, and the fruits are of large siza, and excellent flavour. It is ancertain whether or not this will affect the crop next season. Of coarse, the forward bude which the tropical weather during the month of September developed, will have already exbanated themselve, tat I fiad the fruit is from the very uppermost buds, which in our case, would have been punned away. The effect will be awaited with a certain mesaure of anxiety. W. A. Cook.

SHARPE'S VICTOR AND VALE OF CLEVELAND POTATOB.-I was much insereated in "R. D.'s" informing note on this matter on p. 464, as during my couraes of lectures in Cambe, I strong recommended Victor as the earlieat and beat early, for mall gardens eapecially. I read "R.D.'s" letter with special attention on this account, to see if this Vale of Cleveland was the yellow-fleshed Victor. Finding this to be the case, the mystery of the two being diatributed under different names becomes the greater. Bat both seedsmen being honourable men, the matter will doubtless be satisfactorily explained. My chief object in noticing this intereating incident is to cantion all concerned against growing the white-fleshed Victor, which in every case I have met with, is decidedly inferior, alike in quality and quantity, to the yellow-flethed Victor. Nem variethes of Potatos are often given to aport, and ran away rather widely from their original siza, colour, conatitation, and quality. Mearr. Sharpe and Short, or the representative of the latter, will probably be able to say whether the white or yellow-fleahed Victor was the original kind. Measrr. "Rom." and "A. D." must in the rich experience of their Potatolore have met with numerous aports more striking than the change of the yellow Victor into the white, or vice versa. D. T, Fith.

\section*{COLOUR IN APPLEB.-At a recent meeting of} the Frait Committee, at duly reported at the time Mr. Miles, of Southampton, sent a good-sized and richly-coloured Apple, which he deacribed as a Blenheim Pipp:n, the remarkably high colour shown being prodaced by frequent applications of sulphate of iron and soot to the roote of the tree during the past few years. Naturally, this statement was received with some incredulity. To me the Apple represented a moderate-siz-d, roundish Mère de Méaage, and on comparing it later with other of that name, I could discern no difference. Can the sender have been, aiter all, the victim of a mistake, or has he really discovered a method whereby generally green Apples can be made as red as Quarrendens? Perhaps Mr. Molyneax, who is often at Suathampton, may be able to aolve the problem. \(D\).

\section*{GAAPE CLABBES AT THE CRYBTAL PALACE.-} As a grower of Grapes and a gardener by profession, Ind Gros Cold know the reason why Groe Maroc and Gros Colmar are bracketed in Royal Horticulgrowth, time in finishing, and character of the finioh
the two varieties differ very widely. As to flavour, how can that be compared in two Grapes so widely apart in the time they require to finith their banche perfectly! I can alway have Gros Maroc finished and fit for eating six weeks before Gros Colmar, all other points being equal. To my idea, if we must bracket Grapes, Alicante would go mach better with Maroc, as they take in ripening and colouring about an equal amount of time, while flavour is not 0 very wide apart. Caltivators of Grom Colmar are greatly handicapped by the present chedule arrangement. Robt. Grindrod,

A DRILL HALL 8 HOW.-Any person not familiar with an ordinary Drill Hall gathering would naturally assume, on reading the reports a admi rably farnished in the press, that these shows must be of a very extensive nature. But if they be not \(s\) extensive, they well repay visit by the exceed ing variety found in them of most interesting objects. I overheard a remark on the 15 th that the how wat a mall one. I could but think that the observation was singularly misplaced. For an October show, collected without a single penny as remaneration being offered, I thought it a remark able one, and easentially representative. How many objects of the greatest interest Fellown, as well as the general public, lose who do not attend the Drill Hall meetinge! One year's regular attendance conatitute a liberal education in horticulture. Pity it is, that being so attractive, they are as a rule not more popalar, Fellow.

DIPLOSI8 PYRIVORA.-Can any of your entomological readers who have studied the above peat render any useful information relative to the prevention of one's Pear tree from being attacked by thil intidious and destractive little midge, Cecidomys ab-genus Diplosis? Oar blossoms seem to be worme attacked by them year by year, and that, too, notwithstanding the precartions taken, viz, last satumn we removed all the loose arface soil to a depth of about 2 inchen from around the garden Pear trees, wheeling it right away and replacing with maiden loam, \&ce ; but the attack was just at bad as ever the following opring. We then used fresh hot gat-lime all round about and underneath the trees, just about the time the first chrysalids began to fall; moreover, we collected all the fallen tiny Pears, and burnt them. I should like to know what more can be done to annihilate the enemy, or whether I may expect to be again tormented by fresh attack: from Diploaip, bred on my neigh bour's premises, because if so, Pear cultivation, if the plague be not stayed, must soon be reduced to a low ebb, owing to the repeated destruction of the crop. From five to twelve is about the average number of larva found in each little Pear, bat I have counted as many as sixty in one fruit; and sometime only one of the larra is found in a fruit, bat this is afficient to destroy that fruit. In some casen, every blonom on an entire tree is infented, and the consequent failure of crop. Any acrap of practicable information will be gratefally received by fruit growers and W. Crump. [Have you tried by frait growern and W.
apraying the blosom? ED.

TOMATO8.-For nome yearn it hat been my practice to make a aowing of Tomato seed about this date for early fruiting in the vinery that is started about New Year's Day. Thene plants set plenty of fruits before the shade from the Vines becomes heavy. Mont gardeners have their favourite varieties for early cropping, and I find Ham Green Favourite excellent for fruiting under Vines. The seed is sown in well-drained pots in rather sandy soil, sandier than that I make ute of in the pring, the seedlings being apt to damp off at this zeason. The seedlings are grown on without check, and with but little water, especially until the pots fill with roots. A place on a shelf near the glase in the plant-atnve or other house having a temperature of \(55^{\circ}\) to \(60^{\circ}\) will anit them. The plant thould not be allowed to grow without mupport being given the atema, and they mast not be over-potted. It is aurprising what fine strong plants may be grown in 32 's up to the time of affording them their last ahift in the spring. H. Markham, Mereworth.

CRAB TAEES - I am glad to see in your columne that various writers are extolling the beauties of the Crabs. Crabs in the garden look very well when planted on opposite nides of a path, and the stem trained over it, so as to form a covered arched way. When the tree so planted come into bearing, and thousand of fruit hang down from them, the aight once seen is never forgotten. J. Macers, Marazion.

\section*{SOCIETIES}

NATIONAT CHRYBANTHEMUY


RYSANTHEMUMS at the Aquariam on November 5,6 and 7 , exbibited uncer the, anthemum Society, up to the average in quastity and in quality. It is doabtul ever been staged than the best of those exhibind this week in the principal class for blooms of thit ection. Incurved blooms were also commendale being in our opinion of better quality depth and finish than those shown last meason. Other metions such as reflexed, Pompon, Anemone, and ninglflowered, were exhibited well in the few clamenderoted to them. Plante were about average in qualits, certainly not better than those exhibited on the last occasion of the annual show. On the lat day of the exhibition, the asaal dark character of the building was accentuated by gloomy wet weather, but fortuately on Wed neaday circumatances were mach more faroarable. Roporters for the prete alway labour under manal difficultisg when reporting a show held in tho Aquarium, and the arrangementa this year were vers far from atiafactory. No doubt mach of this is convenience is unavoidable in such a building, bat wo atate the case, as being our apology for any inac curacies or omisaions that may appear in our report

\section*{CUT BLOOMS.}

Society's Class.
The batt'e of the Horticultural Societies for honours in the class for forty-eight blooms, distinct, Japanese and incurm varieties in equal number, was engaged in by five conpetiterm and the 1st prize of \(£ 10\) and the Challenge Trophy was won by thy Southgateand Distaict Chrysanteremum Society, buthe whole of the blowms ware fuenished by one of its members, riz Mr. W. H. Lees, gr. to F. A. BEV AX, Esq., Trent Park, Barnot As this competent exhibitor entered in other large clases under his own name, the unaided efforts he made on behall of the society were very great. Of the Japanase blooms in thi stand we may notice Marame Carnot, Van der Heede.
Molyneur. Thor. Wilkins, Mrs. W. H. Loes, Vivial Morel, Louise, Chas. Davis (capital colour), Sunflowes Eva Knowlee, Mutual Friend, Col. W. Be smith Giss Rita Schroeter, and Mdlle. The ess Red, ane all Which were of excellent charactero The Incuress, Empress of India, Lord Aloester, J. Agate, C. H. Cartien Queen of England, Jeanne d'Aro, Lady Harding, and Mr. Heale. The Bromley and distriot Chrysayteneyoy Society were successfut in takiog 2nd place, and the exhibit was very praiseworthy. Included was the bof coloured bloom of Hairy Wonder we remember to have wow 3rd Brigeton and Sussex Horticultural Societs

Open Classes.
Incurved Blooms.-There were but two exhibits in the dim for thirty-two blooms, incurved, distinct, and the lat prith iv. Challenge Cup and \(\mathscr{L} 10\), was taken by Mp, W. H. \(-B 4\) who again had firet-class blooms. The varieties were-Bud row: J. Agate, Globe d'Or, Mon9, R. B hhaant, Empressod Indie, Prince Alfred,C. Curtis, Lord Wolseley, Queen of England, Bam: Hirsch. Miss Haggas, W. Tunnington, J. Lambert. Mader Lady Harding, Princess of Wales, J Doughty, Golden Empris Joo. Salter, Empress Eugéaie, Violet Tumlin. Mra, Hent Altred Salter, Lord Alcester, Bobert Petfield, Lord Ros byry Altred Salter, Lord Alcester, Robert Rin des Plantes, Nil D. perandum, Mrs. Coleman, Princess Beatrice, Madam Darier, Chas。 Gibson, M. P. Martignac, Lucy Kendal, Hat of Stoke Newington, Refulgence, and Joana was wel Though the only other exhibitor, the 2nd prize wamaide deserved by Mr. W. Mease, gr. to A . TATE, Esq.o, Downemed Leatherhead; his stand, however, brighter had more light-coloured Gloke d'Or Lard Alegitecolenred varieties beres of I Globe d'Or, Lord Alcester, Alfred Salter, Empres d'Are, mo Princess of Wale
The best twen'y four incurved blooms distinct, weve form The best twen'y.four incurved bloms distinct, wallith Piace, Bishop's Stortford. The flowers were not very bey but were compict and pretty. The hesviest were sho pretty blooms of Alfred Salter, Lady Hardinge, Jeanne \({ }^{\text {d }}\), Lord Alcester, and Jardin des Plantes. Mr. T. Robinoor Lord Alcester, and Jardin des Plantee. Lairrenct, Esq., Elsfield Hou*, Hollingboume, wal so W. Laifrencte, Esiq., Elsfield Hou*e, Home wis M, A. Haggas, and Mrpos. Coleman. 3ed, Mr. W. F. TrDP, Brat hampton Nurseries, Havant ; and 4th, Mr. H.
F. Crisp, K If. White House, New Southmate. late J. Mas Mr. J. H. Walker, gr. to the Exors. of the late do bes crall. Eiq., Goldbeatera, Mill Hill, N.W., staged one The \(t\) welve blooms, and the exhibit was a commend Alcester fine), Jao. Lambert, Golden Enapress, Jno. Douzht o, Madame Darier, Brookleigh Gem. Endia, and Novelty, Zod, Mr, R, Ridge, gro.

Eadr. Esq., Oatlande Lodge, Weybridge. His best blooms were Priaceess of Teck and Jeanne d'Arc. Mr. R. Joue3, g.
to C. G. Smith Rylayd, Esq. Birford Hill. Warwick. was 3 d; his blorms wese wide but not deep. 4th, Mr. A. Jones \(\mathrm{g}^{\mathrm{f}}\). to Miss Wyburn, Hadley Manor, Barnet.
The best incurved blooms of one variety were exhibited by Mr. J. H. Walier, who selected Jeanne d'Arc, which he showed very well. 2nd, Mr. B. CALVEBT, who had Alfred chot Madame Darier as his variety. There was considerable competition.
Japanese Blooms. - The opinion was generaily felt that the \(J a p a p e s e\) blooms were of better quality than she incurved, although the latter were better than last year. The leading clasg was unusually strong, and apart from the 1st prize
exhibit, the collections caused considerable difficulty to the judger. Mr. W. H. Lees, gro to F. A. BEyAN. KqG., Trent Park, Barnet, was an easy lit for the Challenge Cup and \& 10 , ard his blooms were fine without exception. The varieties were:-Frcnt row: Mrs. W, H. Lees, Reine d Angletorre,
Phoebus, Miss Dorothy Shea, International, Chas. Devi, Mons. Panckoucke, Van der Heede, Madame Ad, Moulin, Ed. Molyneux, Viviand Morel, W. G. Newett, Chas, Shrimpton, Thos. Wilkine, Mra, C. H. Payne, and Madame Carnot. Middle row: Wm. Seaward, Louise, Madame M. Ricaud, Mephisto, Wm. Tricker, Monso G. Biron, H. L. Suaderbruck, G. C. Sch wabs, Madame Ad. Chatin, M. Ad. Grand, Mutual Friend, Beauty of Cabtlewood, Visc 3 , Deuil de Jules Ferry. Front row: Colonel Smith, Presideat Borel, Guirlande, Eva Knowler, Madame A. de Galbert, Mrs. Falconer Jameson, Sunflower, Jno. Shrimpton, Miss Rity
Echroster, Mons. Chas. Moli n, Souvenir d'une petite amie, Hairy Echroster, Mons. Chas. Molin, Souvenird'une petite amie, Hairy
Wonder. G. W. Childs, Puritan, Henri Jacotot Fils, and Mdlle. Thée èe Rey.
The judges had diffizulty in awarding 2nd and 3rd places. Eventually, Mr. Wm. Mease was awarded 2nd prize; and Mr. W. Wells, Earlswood Nurserier, Redhill, 3rd.
In the former exhibit, blomma of Miss Dorothy Shea, Silver King, Viviand Morel, Robert Owen, and Mille. Marie Hoste, The especially fine.
The best collection of twenty-four blojms, distinct, was
shown by Mr. W. Messenger, gr. to H. A. Bervers, Esq. shown by Mr. W. Messenger, gr. to H. A. Berrers, Esq.
Woolverstone Park, near Ipwich. He had an excellent lot of blooms, of which the followiag were the best, Mrs. C. Harman Parne, Etoile de Lyon, Waban, Mdlle. Thérèse Rey, M, Panckoucke, Madame Carnot, M. Grayer, Mrso G. J. Beer, and Mis D. Shea (a Silver Cup, givea by Mr. Joner, acsonpanied the ist prize). The 2nd place was given to Mr. O. W. DRake. Cathays Nureeries. Cathays Terrace, Cardif, colvur fairly deep blooms. The following were the best, Mrs. H,
Payne, Lord Brooka, Madame Carnot, Dorothy Shea, Madame Zurich, Viviand Morel, and Ed. Molyneux. 3rd, Mr, W m.
Alluk, Gunton Park Gardens, Norwich; and 3rd, W. Herbert Towlif, Efq., Claremont, Taunton (gr., Mr. C. Hart), There was some diesatisfaction expressed with the result of the jadging in this class.
The best collection of twelve bloome, distinct, was shown by Mr. J. Agate, Chrysanthemam Nurseries, Havant, and of commendable merit they were, the weakest bloom being Miss
Ethel Addison, which thowed the centre somewhat. 2nd, Ethel Addison, which thowed the centre somewhat. 2nd,
Mr. H. A. Page, gr. to F. Crisp, Esq, White House, New Scuthgate, N., whose exhibit very nearly approached the lat one. Brd, Mr. J. Sandford, gr. to G. W. Whight-Ingle, Esi, North Finchley. 4th, Mr. H. Levey, gr. to M. Low, Efq., Warwick.
Six blooms of any white Japanese variety were best from Mr. R. Jones, who showed Mdlle. Thérde Rey in good charac-
ter. Mdlle. Marie Hoste, shown by Mr. J. Sandford, gr. to G. W. Wriget-Ingle, Esq., Wood House, North Finchley, was a good stand for 2nd 'place; and Mr. B. CALVERT, again thowing Mdlle. T. Rsy, was 3rd; 4th, Mp. T. Lodge, gr. to Rev. J. Menet, Hockerill, Bishop's Stortford.
Mr. R. O. Notcut. Broughton Road Nurseries, Ipswich, had the best sir blooms of sny variety other than white, exhibiting a new one called Edith Tabor, a broad-petalled, pale yellow Variety, of fige merit; 2nd, Mr. B. Calvert, who had Col, g nith, very good; 38d, Mr. J. SANDFORD, with Viviand
Morel; and 4th, Mr. Cor, gr. to JNo. Trotrer, Eeq., Morel; and 4th, Mr. C. Cox
Brickendon Grange, Hertford.
The leading place in the class for six Japanese blooms, incurved, distinet, was taken by Mr. R. Joses, gr. to C. A. were Miss Ethel Addison, Col. W. B. Smith, Louise, Ricard, Lord Brooke, and Prêfet Roberts; 2ad, Mr. T. Carter, gr. to A. G. Meissener. Esq, Weybridge, who was a very close 2nd. Hairy-petalled varietiss.-The best six Japanese blooms,
hairy-petalled varieties, were shown br Mr. W. WeLLs, Earlswood Nurseries, Redhill, Surrey. His varieties wereLouis Boehmer, White Plume, Lady of the Lake, Hairy Wooder (very wide, but thin bloom), Mrs. Higginbotham, and Mrg. W. J. Godfrey, a pretty white variety ; Mr. H. Love
was 2nd. King of the Hirsutes, a yellow one in this stand, is a good variety.
Reflexed Blooms, large-flowered. 一Twelve large-flowered rofexed bloome, in nine varieties, were shown by Mr. R. C. Notcur, Broughton Road Nursery, Ipswich. But fow additione are made in this section. The varieties staned were Cloth and Cullingfordi. 2ad, Mr. J. H. W ALKER who incladed blooms of King of the Crimsons, R. Smith, and Cheralier Domage ; 3rd, Mr. C. Brown, gr. to R. EEXTY, Eeq., Langley House, Abbote Bromiley.
Anemone blooms, large-flowered. - The class for twenty-four blourus, Japaje: Anemones inclu \({ }^{\circ} \mathrm{od}\), wa won by Mr. W.

Sleggs, RT, to A. Moseley, Req., West Lodge, Barnet. There was considerable competition in this class, and the 1st prize exhibit was very fine indeed. The varietios were, Duchess of Westminster, Fleur de Marie, Thermidor, Mrs. J. Benedict, Nelion, Grande Alveole, Fabian de Mediana, Gladys Spaulding, Cincinnati (very pretty), Jno. Bunyan, Lo Deuil, Acquisition, Mons. Ch. Leboscyz, Mrs. Leven, Enterprice, Descartes (eplendid). Jeanne Marty, Wueen Elizabeth, Macime LawBDn, M. Dupanloup. Delaware, W. W. Astor, Mdlle. Natalie Brun (very attractive lilec and rose culoured variety), and Sir Walter Raleigh. Mr. A. Ivee, gr, to E. C. JUkes, Esq, Hadley Lodge, High Barnet, was a good 2nd; and we noticed in his aland very grod blooms of M. Dupanloup, Sabine, mad
others. 3rd, Mr. J. Milner, gro to Mra W. A. Hisas, Willeaothers. 3rd, Mr. J.
hall Park, Barnet.
Mr. W. Sxeges was the winner also of the lat prize for twelve large flowered Anemones, excluding Japanese, and again showed well, but his collection was lacking caloured varieties: Mp, A. Ives was 2nd, and the 3rd place was taken Hadley.

Aneinone Japanese. - The class for twelve blooms, distinct, gave another lit prize to Mr. 8 kkigis , and his blooms were
very large, and most of them good io other respecto. Hie selection was the following:-Le Deuil, Joo. Bunyan, Nelson, Enterprise, Queen Elizabeth, Descartes, Jeanne Marty, Bir Walter Raleigh, Madame Lswson, W. W. Astor (with poor centre), Mdlle cabrol, and M. Dupanloup. The 2ad place in this competition was taken by Mr. J. Justice, gr. to Sir R. Temple, Bart., The Nash, Kempsey, Worcester. He had a deodedly commendable collection, and was followed by, Mr. J. Milemer.
Mr. J. Milamer.
Anemme Pompons. - Twelve Anemone Pompons, distinct. three flowers of each variety in bu эches. Mr. C. Brownstaged a very pretty collection in this class, and had lat prize. His varieties were Francis Boyce (rather too large in comparison with the others), Madame Leutier, Antonius, Madame Montels. Magenta King. Madame Chalonge, Mies Nightingale, Mr. Astie, Hegina, Kmily Rowbottom, Queen of Anemones, and Besgie Plight; 2nd, Mr. J. Myers, gr. to the Earl ol Sandwica, Hinchingbrooke, Huntingdoa. There were only two exhibits in this class, and both were of good quality,
Pompons. - Mr. O. Brown was the winaer in the clasifor twelve Pompons, distinct, three flowers of each variety in bunches; his exhibit was decidedly praieworihy, the blooms boing even and good; Mdlle. Elise Dordan is still the prettient flower in this section, but W. Westlake, Black Douglas, Harry Hicka, Mre. Bateman, add Chas. Dickens, are also capital diverse varieties. 2nd, Mr. B. Cahyer, whose collection was but little

\section*{Single flowered Varieties.-The show of single-flowered} prize in the class for twelve varieties in bunches or aprays was Mr. J. Mrens, and the whole of the flawert wera to good that we append their name:-Jane, Parity, Fnow Admiral Symonds, yellow; Mrs. D. B. Crane, very pretty pink; Nora and Foxhunter, coloured ones; and Miss M. Wilde, rose and white. 2nd, Mr. W. C. Pagram; 3id, Mro W. Wells.

The best collection of twenty-four blooms of Japanese ia not fewer than eighteen varieties, was shown by Mr. JAMES STREDWICK, Silverbill, St. Leonard's-on-Sea. A Silver Cup presented by J. M. Copper, Req., wis added to the list prize in this class. Mr. Stakdwick's exhibit was an excellent one, and included good flowers of International, Chas. Davis, Viviand Morel, Miss D. Shea, Wm. Seward,
and others. Mr. C. A. Jessop, Mildenhall Workhouse and others. Mr. C. A. Jessop, Mildenhall Workhouse,
Suffoll, also had an excellent collection, which we congidered equal to the one already noticed. The flowers in this case were very fresh-looking, bright, and of large sizo. Thomas Wilkins, Chas. Davis, Puritan, and Hairy Wonder, were the most noticeable; 3rd, Mr. H. Love, 9, Melville Terrace, Sandown, Isle of Wight,

Mr. W. Amies, Bouth Ashtord, Kent, was 1st in the class for twelve incurved blooms, distinct, bat the flowers were coly poor. The 2nd and 3 rd prizes wers taken by Mr。 \(\mathbf{G}\). R. Crowse, Long Ditton, Surrey.
The exhibits of six bloons of ineurved, dietinct, were better. The ist prize was taken by Mr. Chas. E. Wilisins, Welling. ton, Swanley Junction, and his best blooms ware Globe d'Or, Lord Wolseley, and Nil Desperandum. G. D. Wilils, Eeq. Hertford Cottage, Hertford Road, East Finchley, was 2nd Hertford Cottage, Hertford
Mr. JAs. STREDWICE took the ist prize for iwelve Japanese blooms, distinct. Ho had exquisite examples of Charles Davia, Viviand Morel, Mies A. Hartehora, Col. W. B. Smith, Autumn Tint, \&c. Mr. K. Love wab agood 2nd, and ubowed fine blooms of Good Gracione, Viviand Morel, Charles Davis, a 3rd Mr. Arthur Stammers, The Knowleo, Maldon, Eabex.
Mr. C. H. Martin won iat for sís Japanese blooms, diatinct. and his specimens of Charles Davis, Suaflower, Van der Heede were praiseworthy; 2nd, Mr. W. Perrin ; 3rd. Mr. J. Kmapp. For the beat six Japanese bloomas, of one variety, Mr. H. Love wan again lst, ehowing very well-coloured Sunflower; 20d, Mr. J. STREDWICE, with splendidy- colo
Morel; 3rd, Mr. W. AMIEs, with Chas. Davies.

Smale Hayded Oandeners' Classen.
Mr. S. J. Cook, gro to J. H. Hartaidee, Kiq., Holewood, Hendon, was the orly exhibitor of twelve incurved blooms, distinct. The best of these were Baron Hirech, Jeanne d'Are, and G. Olenny.
The bent six incurved blcoms were from Mif. W. Co
PAGRAM, whose Jeanne dirc. Baron Hirech, and Brook-

Jeigh Gem, were fairly good; 2nd, Mr, C. R. Wuruss: 3ed. Mr. C. H. Mutin, Rp. to E. H. Luvetos, Eq, \&ajmead Hendon, N.W.
The Japacese blooms were shown better, and the collection of twelve blooms, diatinct, from Mr. W. Perrin, gr. wo C. W Pichakns?n. Esq.. Sawbridgeworth, wese very rood, Mademe Carnot, Mille. T. Rey, Mra. Y. Jamenon, and C. Oos enjecilily the last-named bloom was extra deep, and the only ove of the kind we noticed in the exhibition. 2nd, Mr. W.C. PıGenM Colonel Chase and Good Gracious were remarked in thie stand, 3rd, Mr. C. H. M^Rtis.
Mr. H. Love had the best ais Japanew blooma distipct, and all the blooms were fairly rood, Golden Gate, if not large, wat very pretty; 2nd, Mine Anvıe L, GAUNT, Hilderthorpe, Boath nice in this stand: Ard, Mr, Jas, Stnedwick.

\section*{Metropolitan Clasers.}

Tbose are restricted to growern residing within the dintrict governed by the London County Oouncil. The best twelve incurved bloome, dintinct. and the only exibit for tas. came from Eraxk Bixcham, Keq, 6. Bothune Rod Btok Newington, and his bloome were very commeadeble for town grown plants.
Mr. J. Brooks, gr. to - Rey molds, Eeq., The Grove, Highgate, beat three other competitore in the class for oin incurved
blooms, with a very nice half-dozen hooms; FHaxk Biva HaM. Exq , followed; and Mr. W. Noble, Er. to K. T. Pitt Feq. Stamford Hill, 3rd.
Mr. J. Brooks was a very goo 1 let for twelve blooms of Ward Wese, distinct, which included fine examples of Mra. Dr, Wr to W. Mins, and W. H. Lincoln; 2nd, Mr. W. Davies, Hill: 3rd, Mr. W. Noble Eaq. Devonehire House, Stamford Hill; 3rd, Mr. W. Noble.
The best if Japanese, distinct, were from Mr. W. Davires, and he was very closely followed by Mr. J. Brooks; 3nd, Mr. G. Toltor, 20 . Albion Gardena, Hammersmith, W.
six large but not extra well-coloured bloome of Charies Davis won the clase for siz Japaness bloom, of any one variety for Mr. W. Farrow, gr. to G. R. Peerless, Esq.o Park Hill, Streatham: Col. W. B. Scaith (very fine in colour), abown by Mrom Mr. J. Brow wo the 2ad place; and the tame variesy from Mr. J. Brooks, wan 3rd

\section*{Epecial Classes.}

These were for prizes offered by trade growers and others Mor particular exhibits determined by the donors of the prizen. for sir vases of exhibition Japsuese Chrysanthemume, distinct, three blooms of each, one variety only in a vaee, with not leas than 1 foot of stem
The most successful exbibitor was Mr. D. M. Hayler, gr. to W. HAMMAYOMD, Keq, Teatorden Mall, Headon, whoee exhitite
 Fawham, Kent, was 3rd. The class for three blooms was won by Mr. N. Davis; and Mr. T. Caryer wes 2nd.
For the special prizes offered by Memrs. B. S. Williams \& Son, for dix blooms of the new Philadelphis, there were numerous competitor, some of the blooms being Very poor, gr. to 3. Commax, Kaq. Gatton Park Reigate : Mr. W Mease, was 2ad; Mr. Norman Davis, Canbsewell, 3rd; nod Mr. G. Foster, fr, to Hammond Spfacers, Eeq, Glendaragh, Kiggmouth, 4th

\section*{Grotys.}

There was oaly one class provided for grou \(2 s\), that in which the special ist prize offered by the Prenideat, Sir EDwiw SaUNDFRS, was competed for. Two of these exhibits were arranged wide by side at one end of the building, and they were both of reat excellence, each being very effec tive, but in style of arrangement quite different. Mr H. J. Jonks, Ryectuft Nurnery, Lewisham, wa awarded the lot prize, and no fault could be found with the deciaion of the judges. This group was forced of two bays arranged in an undulating manner, esch of which presented a bold front, the centre also being imposing, the recess between the two bays at the front being varied with highly-coloured Crotons, these also followed around each ride, and an edging of Isolepis at the margin. The varieties were chietly chosen of the Crotons, those with massive foliage, whilst here and there between the taller Chrysanthemums were narrow-leaved varieties, the background being rel:eved
by Cocos Wedelliana, well-furnished with healthy leaves. The Chrysanthemums themselves were the picture of health, with large, nassive blooms, the grester part of which were fit for exhibition bourds: fow dwarfer plants woald posibly have added the coneral elfect in the front, but severthelem it was a grand group, The lanche, Madume Théress Rey, Ioternationsl, Reine diApgle terre, and W. Seward. Mp, NoRMay Datis, butweryman, Camberwell, was the other competitor, and he worthily won the 2nd prize; this group did not present so impoaing an appearance as the former, the flowers being on the whole perceptibly amaller, yet of fret-class quality. The centre at the back was somewhat weak, s tall erect Juniper doing arvice where Cocos plumosa or a Bambura pracilis would have greatly added to the effect. Crotons and Dracsenss were here uued to give variety, the latter a trife too freely (D. tex. minali the variety), instead of which a few Eulalia juponica would have been better; Cooos Wedelliana, however, toll with good effect. The froat was well fiaished off with dwart plants of Japanese varieties; those most prominent through out the group were Chas. Davin, Madame Carnot (extra fine) Viviand Morel, and Louise. The 3 rd prize was awarded to

Mr. French, gr. to Mra. Barclay. Ambleside, Wimbledon Park, for a group more in the old-fashioned style, the fr

\section*{Specimen Plants (Trained)}

These were grouped around the two fountains at either end of the building, being thus seen to the best posiible advantage. The plants were not, perhaps, quite so large as usual, but this, inatead of being any detraction from, rather added to their appearance. Better all-round specimens could nct be possibly desired than those shown in the three following claases by Mr. Donald, gro to J. G. Barclay. Esq, The Green Leyton, Essex, in each of which he was awarded the lst prize, viz., for six named specimens of large-flowered varietie3 Japanese included; these were of glohose form, averaging
4 feet in dismeter, the varieties being Chinaman, bright purplish-violet-very fine; Gloriosum, distinct-very pretty; W. Tricker, good; White and Pink Christines, both excellen plants, well-flowered; Dr. Sharp, rich in colour, a fae plant.
For sir trained specimens (Pompons). with remarkably fine plants, not nearly so dwarf as usual, but all the better, the ariet'es were Golden Madame Marthe and lthe white or original form, both densely flowered; William Kennedy, dark rich red, with large flowers; Soeur Mélanie, of similar good quality; and Black Douglag, well known as one of the finest quality; varieties.
For sim standard (trained specimens), with plants having dense spherical heads on clean stema, each densely clothed with flower; here the varieties were Chinaman, Stanstead Surprise, extra good; La Triomphante. the flowers of good quality; W. Tricker, and Cleopatra, both good plants ; and
Madame B. Rendalter, very clean and freer. Mr. Donald was also an easy winner for one specimen plant any type, pyrawidal trained, with a well-balanced example of Meq., Cedar Hoase, Stamford Hill, being 2nd with a pretty keq., Cedart of Elsie.
plant of Elster exhibitor was also lst for four trained specimens,
The any varieties, a specially fine plant of Dr. Sharp being his best, as well as lst for four standard-trained specimens, here he had a very fine plant of Colonel Smith, clearly proving the value of this variety for specimen culture.

\section*{Table Decorations, Vases, \&}

These were amply provided for in one of the galleries, and a keen competition was evidenced in nearly every class save the two first in the achednie. In either of these casses the prizes were good, whilst the object of the Committee in providing such clases is a most laudable one, inasmuch as it should be the meane of popularising the Chrysanthemum in ways not \(s 0\) irequently adopted. Mr. H. J. Jowes staged a magnificent display in the class for a table of cut blooms of Chrysanthemums, any type, shown in any manner the exhibitor thinks best; 18 feet by 6 feet. The wall at the back had, to commence with, been draped with a pale green material, thus forming a good background for the flowers; these comprised splendid blooms of high-class exhibition quality. Some were arranged at the back on tall arcade-like arches; these chiefly consisted of yellow varieties. On each side were two tall vases appropriately filled with large blooms and such foliage as the Oak with its rich autumnal tints, also Bracken, Grasees, Virginian Creeper, \&c., all blending most harmoniously together. Other and somewhat similar but shorter vases were employed in front of these, these being filled with equally fiae flowers, whilst at the front were three lines of specially fine blooms arranged in giasses fixed into a fire-frame, thus forming an excellent substitute for the more orthodox boards. The best kinds noted were Chas. H. Curtis, a valuable addition to the incurved section, with rich deep canary yellow almost globular blossoms; Madame Carnot, the finest of the white Japanese Chas. Davis, of rich colour; and Amy Shea. Dwarf well coloured Crotons as C. Baronne James de Rolhschild. with Ferns, added to the effect, as did several fine cut fronds of Goniophlebiam subauriculatum. One vase was filled entirely with incurved varieties; the excellent arrangement proving that in good hands, these more formal flowers may be well dieplayed. The Gold Medal of the Society was most deservedly awarded to this fine exhibit

Mr. R. J. Orand was the only exhibitor in the next clas, for a table of bouquete, wreaths, sprays, se., to illustrate the decorative value of the Chrysanthemum. This was, on the whale, wearcely up to this well-known exhibitor's standard more time apent in the arrangement would have remedied this. The best things, but in questionable taste, were th anchor of bronzy-yellow bloome, the wreath, and the harp with several good sprays. A Silver Medal was awarded.
Mr. Hayler, gr. to W. Hanvaford, Esq., Tenterden Hall Hendon, was lst for three vases of twelve blomms in each, with the addition of other foliage; this exhibit was bold and effective, the flowers being informally arranged (quality here was also conspicuons), with the addition of very suitable foliage, as Cyperus alternifolius, Pteris argyreea, and Myrsiphyllum asparagoides; had these vases stood in a better position, they would have been considerably improved in appear ance. Mr. Prewett, swise Nursery, Hammersmith, had three somewhat eimilar vases, between which and the former achibit there was not much to choose; the flowers, however asicely showed to such advantage, but a good use had been made of antumal foliage. Me. Cuard followed with much taller vases, the additional height not boing any improvement in enect, but rather the reverse.
Tar three opergnes, there were tix oxhibits, these showing Priewetr, fwise Iuraery, Eammern arrangement. Mr. cany lat, his exhibit being a pleaving combimetion of pale roay
was a practical one when placed upon a dinner-table, which is more than can be said in every case; the larger flowers were confined to the base, graduas taken up by them. Mr. Merinot any too much room was dew, gr. to Dr. Paul, white and yellow were the two addibeing employed tions to the foregoing, the arrangement bing were dressed on tive. Some of the stands of other extibit.
For two vases of Pompons or Anemone Pompons arranged in ases, not lower than 12 or more than 18 inches in height, Mr. Webster's, gr. to E. T. Prestonv, Esq., Kelsey Manor, Becken Webster's, gro most creditable 1st, with rather tall pyramidal arrangements, one of yellow flowers with bronzy foliage, and arrangements, one of yellh with white with green foliage and berries. Mr nother with white win in this class, with arrangements of MERIDEW was 2nd
In the class for two hand-bouquets, some excellent examples ere displayed, Mr. WeBSTER winning with two very asteful bouquets, one consisting chiefly of single varieties o ight colours intermixed win choied bits outumoal an other light foliage, the other being composed of yellow and bronze colours. Mr. Newell, gr. to Sir EDWIN SAUNDERS (the President of the society), Fairlawn, Wimbledon, came in a close 2nd, the chief difference being that larger flowers were employed, but with good taste, one of yellow and bronze, and nother of pink and red, being the choice of colours; the leave f Aspidistra lurida variegata were used with the latter colour to a good purpose
class for ladies only, brought out soxe capital displays, notably in the lat-prize exhibit of Mrs. Newell. Victoria Road, Wimbledon, who evidently understands the correct principles of decoration, her basket being bold, yet free in style. The 2nd prize was taken by Mrs. W. Green, Jun with a smaller arrangement
In the class for sir blooms of any one variety of Japaneze, with foliage of any kind, set up in vases less than 18 inches in height, Mr. Felgate, gr. to the Duchess of Wellington, Burhill. Walton-on-Thames, was a distinct lst with an arrangement made of the variety Sunflower, both quality and effeot being conspicuous. Mr. Cook, gr. to J. H. Hartridge, Helwood, Hendon, was and with another yellow variety.
In the corresponding class for amateurs only, Mr. Enward Jones, 25, Malvern Road, Hornsey, was a most worthy lst with the best arranged vase in this section, it affording an excellent example of a vase arrangement; the variety was Viviand Morel, of pale colour, but fine flowers, group:d with Azales pontica foliage and Smilax, \&c. The 2nd prize went Azalea pontica 3 Macgravine Gardens, W., the variety to Mr. R. K. Wrmson, Mrs. Harman Payne; the effect also good.
As a hand-basket of natural autumn foliage and berries arranged for effect, Mr. John Mansey, gro to S. H. Smitri, Ksq.ostaged a very tasteful exhibit with considerable variety, and likewise harmonious blending of autumnal tints, the common Berberis in fruit, Mabonia aquifolia of deep bronzyred, and Clematis Vitalbs in seed were all used with good
effect. Mr. WM. Green, jun. followed again in this class effect. Mr. Wm. Green, jun., followed again in this class
with another good exhibit, rather more packed than in the lst prize basket.

\section*{Fruit and Vegetables}

Grapes were not largely shown, but were very good. Mr. W. Tidy, gro to W. K. D'Arcy, Esq.o Stanmore Hall, had the beat whites, in pretty clear-berried and medium-aized Muscat of Alexandris: Mr. W. Taylor, gr. to O. B. Bayer Rsq.. Forest Hill, wis 2nd, with larger but less-finished bunches; and Mr. J. BUBY, Byfleet, Sarrey, was 3rd.
In Blacks. Mr. Bury was 1st, with good-sized, handsome, well-finished Alicanter; Mr. TAyLor coming 2nd with large but somewhat ungainly bunches, though well-coloured; Mr. Calvert, gr. to Colonel Archer Houblor, Bishop's Stortford, was 3rd.
With Gros Colmar Grapes, Mro T. Eall, gro to W. Gardiver, Evq., Merstham, was well 1st, his bunches being handsome, well coloured, and with fine berries; Mr. TAPLor came 2 ad well coloured, and with fine berries; Mr. TAylor came 2 ad his clusters were largar, though lacking colour
Pears ware very fine and plentiful. Mr. W. Alwan, of with fine samples of Pitmaston Dachess, Marie Lonis d'Uccle, Darondeau, Doyenné du Comice, Marie Louise, and Emile de Heybt; Mr. Goldamith, gr. to Sir E. J. Loder, Horsham, was 2nd, having also very fine clean fruits of Pitmaron Duchese, Souvenir du Oongrès, Geaeral Todleben, Marie Louise, Beurré Diel, and Doyenné du Comioe; Mr. H. Marie Louibe, Beurré Diel, and Doyenvé du Comion ;
Apples.-There were eleven collections of six dishes of dessert Apples, the majority very fine, handsome, rich coloured, and of the best quality. Mr. Golismite was ist having beautiful Ribston, Cox's Orange, and King Pipping Amer, can Mother, Adams' Pearmain, and Blenheim Pippin Mr. T. Turton, Earley, was 2nd, having very handsome Jeffersons, Rosemary Russet, Adams' Pearmain, and Ribston, Cox's Orange and King Pippins, Mr. C. Ross, Welford Parl Newbury, was 3rd.
There were also elaven collections of six dibhes of kitchen Apples, thene being generally very fine. Here Mr. Tubton was 1st, with very large, handsome, and rich-coloured Mere de Méaagà, Emperor Alexander, Cox's Pomona, Lane's Prince Albert, Peasgood's Nonsuch, and Bedfordshire Foundling Mr. Goldsmith was 2nd, having also very fine Gloria Mundi, Peasgoon'a. Emperor Alezander, Gascoyne's Scarlet, Lard Derby, and Warner's King. Mr. W. T. Stowers, Sitting bourne, was 3rd.
Very fine collections of Apples and Pears were wet up by Messrs. W. Cutbus \& Sons, Highgate; Mesars.C. Lee Sons, Hammersmith; and Mesers. BPooner \& \$ons, Houds low, all of whom had splendid samplon, and in great variety also very etfectivoly staged.

Fegetables.-These important products seem at thit ohow to have somewhat fallen from their former high estate, perthaps because these products are not found at their bast in Noremben, For the valuable prizes offered by Messrs. Suttor \& Som Reading, for collections of nine distinct kinds, the quantitien in each case being too severely limited; only five latate vue staged. Mr. C. J. Waite, gr, to the Hon. Col. Talbor, Rate was 1st, having small Cauliflowers, Brussele spronts, nthen fair Tomatos; good, but spotted, Colery ; fair Aile nime Onions, Prizetaker Leeks, pretty Satisfaction Potatos, hand some new Intermediate Carrots, and Peerless Cucumbon, 2nd, having very good samples indeed, especially of 1 , mu Leekg, Onions. Parsnips, and Potatos; and Mr. J. Gibeon, Leekg, Onions, Parsnips, and Potatos ; and
to E. W. W ATTs. Esq., Chiswick, was 3rd.
The Society's classes for Potatos were well fillod, an on exhibito: in the person of Mr. E. S. Wiles, now at class for twelve varieties, he had very handsome modilim Kidney, Snowap, Supreme, Perfection, satisacima, Lan Dean, Puple Perment Rat having handsome but less fresh samples; and Mr. C.Osur, Sutton, was 3 rd . The same three took the prize is inuiver order in the class for six kinds; Mr. Wiles having Widowe Castle, Snowdrop, Satisfaction, Lord Tennyson, Pink Pertection, and Parple Perfection.
Mr. Empson, gr. to the Hon. Mrs. Wingrield, Ampthill, nont collection of fine clean Carrots in several varieties, \(u\), out by Messrs. Sutton \& Sons, which firm showel a wondent collection of Potatos, including fine tubers of Satidtaction Triumph, Windsor Cistle, and Magnum Bonum, and lang dishes of Early Regent. Ashleaf Kidney, Readiag Hero, Per fection, Harbinger, Reading Russet, Reading Ruby, Fint and Best, and many others, there being with seedlings and Pis apple examples, about eighty varieties. Mr. J. Berridge, gr to W. L. Unwin, Esq., Southall, had a very intereating on lection of vegetables, the central figure bsing a number plants of the popular climbing Bean, Tender-and-True, inpoh fruiting finely, and numerous Parsnips, Carrots, Potatom Bote Onions, and other roots, also green stuffy, in great variots.

\section*{Miscellaneous.}

Honorary exhibits were fairly numerous; notice was tive of those following:-Mr. Norman Davis, nur.aryman, \(\mathrm{Cum}_{\mathrm{m}}\) berwell, exhibited a few blooms of Chryssathemuma, reper senting some new varieties for 1898 ; Mrs. J. Shrimpton w one of the best of these; it is a large buff Japanes, mik broad flat petal, very high oentre: Jno. Beward is a hyo yellow Japanese, and Dorothy Seward a latze palo mom yellow Japa
Horticultural suadries wore exbibited on a stand by Mr, J. Geore E, 14, Redgrave Road, Putney, S.W.; and the Jisen Co., Limited, had a group of good Chrysanthemums in blam which had been grown from the cutting stage in the Jow Fibre.
\(\Delta\) capital group of Chrysanthemums in bloom wha put by Messts. J\&s. V Eitce \& Sons, Royal Exotic Nursery, Chath
which some old and many new varieties were weif shem.
Nine Chrysanthemum bloomas, in as many varieties, wo ent by M. Alfred Chantrier, Casa Caradoc, Byow (Basses-Pyrénées), but none of them were very noteworth.
Mesors. H. Cannell \& Sons, Swanley, Kent, had hy table magaificently furniched with sprays of zonal per goniumg of bright colour, and a quantity of Chrysantin blooms in coosiderable variety. Amongst the latur, bunches of Yellow Source d'Or were conspicuous,
Mr. W. Piercy, 89, Beadnell Road, Forest Hill, 8.E, wo Mr. W. Pax Mr. W. E. TIDY, Brockhampton Nureeries, Havant, funity large table wit
A grand lot of novelties in Chrysanthemume were ulomity Mr. Robert Owen, Maideohead, including a good chatir coloured Japanese, named Beauty of Sholing, flowered yellow Pompon, named Dolly.
Mr. H. Shoesmith, Claremont Nursery, Woling Mr. Messre. WM. CUTBUSH \& SoNs, Higharate Nurseries, Lontion No, showed a miscellaneous group of flowering at plants, and some piants in flower of
Chrymnthemum Mra. Chaso Blick, \&c.
Mr. W. J. Godfrey, Exmouth Nurserie?, had aload i hundred blooms, repreaenting for most part Engliah seddiry raised by himself or others.
a protty group of Orchids and miscellaneous flowerisg oliage-plants was staged by Mesers. B. S. Wiluinss Imen Victoria and Paradise Nurseries, Upper Holloway, N. Victoria and Paradise Nurseries, Upper How were by Messore. Wililiams.
Messrs. D. and W. Buchanax. Forth Vinerards, had ally-tinted Vine Leaves, fod a fem Grapes and Toman

HAVANT CERYSANTHEMUX
Остовer 29.-To thil Society belongs the hou of opening the cycle of Chry*anthemame in no respect this, the twelfth it has held, wan in no reap quality.
The cut bloom clasess were liberally provided


Tivy, Brockhampton Nurseries, Havant. For eighteen and twelire Japanese. Mr. AGate, of the Chrysinthemum Nur eeries, was 1st, with remarkably fine blooms in both of the clastes
In the incurved section. Mr. Penford won in the class for twenty-four, and Mr. AGATE in that for twelve varieties,
both exhibitors staging very creditably. Anemone-fowered and reflezed varieties were shown in but moderate numbers, but the Pompons and single-flowered varieties formed an admirable feature. In the first of these classea, Mr. H. SNoor, 5. Fitzroy Street, Fratton, was lat for single-flowered; and Mr. Agate was lst with some really beautiful varieties shown as triplets in banches
Mrs Cowway, Havant, wes an easy lat in the dinner-table decorations, in which Chrysanthemums formed the major part. The Hall was rendered quite giy with a number of plants in pote, Mr. Tiny being let in the two classes.
Fruit formed also a creditable display, the prizes for Grapes falling 10 Mr. Penford and Mr. W. Mitohkir, gr. to J. W. Flemming. Esq., Chilworth Manor.
Mr. Cheaton, gr, to Sir W. Pink. Shrover Hall, Cosham, wan invincible in the regetable classes, winning two lsts,
Mr. W. E. Tidr, who is also the Secretary, had a quan of cut blooms of Chrysanthemums and other plants not competition, which were greatly admired.

\section*{WATFORD CHRYSANTHEMUM.}

October 29, 30-This exhibition, the tenth, was held at the Clarendon Hall, Watford, on the above dates. It was of the usual high character, the exhibits throughout being of the beat quality, and the entrie fell but very little short of those in former seasons. The fruit was the finest display that has been shown for some years.

\section*{Groups.}

In Division I., the group of Chrysanthemums were conapicuous for their effective arrangement; the firat a ward for a group on a space not exzeeding 50 feet was secured by Mr. C. E. Keyser ( \(\mathrm{gr}_{\text {. }}\), Mr. Gleeson), while the 2nd passed to Mr. W. K. D'ARCY (gro, Mr. Tidy). The prizes for a group of miscellaneous plants on a like space fell to the latter gentle-
man and Lord Esike (gro, Mr. Brown). In Division II., open to members only
In Division II., open to members only, the Chrysanthemum group awards went to Mr. Braltawaite (gro. Mr. Wearing), and the hon. secretary. Mr. C. R. HUMbERT (gr., Mr. Harvey). Mr. C. G. Motr (gr., Mr. Plummell), had the best group of
Chrysanthemums in Disision III., open to mem vers not emChrysanthemums in Division III., open to mem ers not em-

In Division IV. open to members employing one gardener, roup; while Mrs. Part (gr., Mr. Hill) secured late for aix Japaeese and sis incurved blooms, three table plants, and three Primulas. The other bloom prizes were given to Mr. Whelon and Mr. Rowlains.
The best vegetab'e collection in Division IV. was shown by the latter gentleman, while the fruit trophies passed to Mr. Braithelite, Mrs. J. F. Hill, and Messrs. A. and J. Wild.

\section*{Cut Bi,ooms}

The open first classes for twenty four Japanese and twentyfour incurved cut blooms were both well won by Mr. C. E. Keyser Both were very good, the finest incurved apecimen bing a Charles H. Curtis, which was the winner of the special prize for the best incurved variety in the show, and a similar award for the finest J ipanese bloom was given to a Madame
Carnot. Other very notice able bloomg ware Empress of India, Carnot. Other very noticeable bloomg were Empress of India,
Madame Darier, Golden Empres;, Cecil Wray, Duchess of Deronshire, Mrs. Harman-Payne, and Souvenir d'une petite amie. In the other cut bloom classes the chief prize-takers were Lord Brownlow (gr, Mr. Lowe). Mr. V. M. Martiv (gr., Mr. Wooster), Rev, H. J. H. Buhchelle-Herne (gr.. Mr. Fowler), Mr. J. Laficy (gr., Mr. Fortnum), Mr.
Blachwell (gr., Mr, Dinsmore), and Mr. Bosanquer.
The best cut blooms in Division III. Were exhibited by Mr. A. Rowlands, Mr. G. T. Skilbeck (gr., Mr. Roberts), Mr. F. Taylor (gr., Mr. Sharpe), and Mr. R. T. Prowse (gr., Mr. Bottom), the best Pompons being produced by Rev. H. F. H. Burchell-Herne. For Primulas, Mr. W.F.D. Schreiber (gr., Mr. Davis), and Rev. H. F. H. Burchell-Hernf. were
the leading exhibitors. The fruit winners were Mr. A, Rowthe leading exhibitors. The fruit winners were Mr. A. Row Lands, Mr. F. D. Thomas, and Rev. F. H. Hodgsor.
The best incurved and Jspanese cat b'ooms in Division II, not fewer than eighteen varieties, both came from Mr. C. E. Blackwell. Ths chief blooms exhibited in these classes were Chas. Divis, International, W. H. Lincoln, Col. W. B. were Chas. Divis, International, W. H. Lincoln, Col. W. B. India, John Lambert (2), Madame Darier, and Empresi of
Yor twelve Japanese blooms, Mr. R. Henty was ist; the
ame gentleman was successful in carrying off both premier sime gentleman was successful in carrying off both premier awards for twelve bunches of Pompons and twelve buaches of Anemone Pompons.

\section*{Table Plants, \&c.}

Mr. V. M. Martin captured both prizes for twelve table plants, pots not to ezceed 6 inches. Mr. S. T. Hollamd was declared the winnerfor six Primulas, whilst the 1.t prize for Primulas went to Mr. P. Bosanquat, Mr. R. F. Todeuntrer, and H. H. Glbbs, Esq., M.P.
For the sixth year in succession Messrs. Scrivener, whose exhibits were first-class in every detail, were the winners of the lst prizes for wreaths, croses, and bouquets. The bouquet of Orchids shown by them was a special feature of the show, and was greatly admired by the judges. The same firm also
obtained the special prize for a boaquet of Chysunthemums, which contained some vary choice dowers. Mr. W. B. Ketrle epecial awards for vegetables, with Mr. B. Hewty and Rev, F. H. Eodgsox as 2nd. Among the amatour cut-bloom winners were Mr. J. Fox. Mr. E. Mansfield, Mr. J. Day, and Mr. H. L. SELL.

The best cuttagar's exhibit of nix Chryanthemum blooms Mr. Shutler. was the winer, Mr. Chicd taliog 2nd; and Mr. ShUTLer was the winner of the mired bunch. Other wianers were G. W. Kevtise, E. Mansfielin, C. Chilis; while the special award for veretebles were obtained by W. Golding (two), W, Hall, J. Percival E. Towris.
T. J. Burdett, and G. W. Kentish T. J. Burdett, and G. W. Kentish

In the diviaion open to ladies, for aingle atand of out flowers and foliage, Miss K. MEAD was lat; and the same oompetitor Was also successful in carrying off two other lats for aprays of flowers and three button-hole bouquets of Violety, es well as 2nd for siz button-holes. Mise J. H. Smite and Mian M. D. Smith shared the other ladies' prizes.

\section*{Fruit.}

Grapes were shown well, the honours being equally divided between Mr. W. K. D'Arcy and Hod. A. Holland-Hilmert (gro, Mr. Cox). The open vegetable collection prizes were taken by H. H. Gibiss, Esid, M.P. (gr., Mr. Beckett), and Mr R. Henty (gr., Mr, Brown)

Messrs. Cutbuse's specials for 2 lb . of Mushrooms fell to Mr. S. T. Holland (gro, Mr. Bichardion) and Mr, H. H
Gibbs, M.P.

\section*{TORQUAY AND DISTRICT GARDENERS' ASSOCIATION.}

October 30.-The Torquay Horticultaral Society having ceased to exiat, the gap has been filled by the Gardeners' Association this year. It is gratifying to all concerned in the new venture to record that the ahow proved a most anccessfal one, notwithstanding the anfavoarable character of the summer and autumn. The collection of plants and cat bloome which constituted the show held on the above date was a very superior one, and reflected great credit on those who rained them.
There were ten competitive classes, and no fower than four of the lat prizes went to the Rev. Talbot Gheaves, whose box of six incurved varieties was greatly admired. Dr. W. FORD EDGELOW was awarded lst prizes in the clases for twelve and six Japanese varietieq, bssides gaining premier honours in large groups.
The Right Hon. W.
The Right Hon. W. H. Long. M, P., in addition to othor
prizes, was placed 1st for table decoratiams. prizes, was placed 1st for table decorationas.
A very fine collection of Eerns and foliane plante was sent by the committee of the Enith Houge Institution; and Mri. Rawson. Bramhope。
An interesting exhibit was the collection of vegetablew raised by the pupils of the Techaical Class for Gardening. Some of the eamples raised by acholars ten and eleven years of age caused expressions of wonder and surprise to appear on the faces of some of the older amateurs. The collection was faces of some of the older amateurs.
Messrs. Vextci \& Son, of Ereter, displayed fifty dishes of Apples, and a small but choice collection of Orchids. This firm also had on view some brilliantly-coloured Cannas, and a new Aster from Colorado.
Mr. W. B. Smale had a charming collection of Chryeanthemums, Ferns, and foliage plants, which presented a very pretty sight. Amoogst the newest varieties were Colonel Chase, a creamy-pink; John Machar and Wilfred Marshall. new yellows; Creole, the nearest approach to blue yet produced ; International, Comte F. Lurani, pink; Charles Davis, bronze; and Mrs. Ford Hillier, pritaroso. Messro. Cultiss, SANFORD \& Co., Limited, had a large exhibit consimting of Chrysanthemums and other plants, aud a large collection of fruit, amongst which were a number of fine examples of
Apples, the second crop of some trees at the South Devon Fruit Farm; Pears. Rapberries, Grapes, and a number of Fruit Farm: Pears. Rapberries, Grapes, and a number of
dishes of Apples. Mr. Smale contributed some charming bouquets and floral devices.
Mesars. Jarman \& Co. Chard, displayed a quantity of Onions, and dishes of Apples; Mp.W.J. Godfrer, bores of Carnations, including several very beautifully-tinted blooms of his own raising ; and Mesars. Tuplin, Newton; Beachey, Jenkir \& Co., Kingskerswell; H. Horn, St. Marychurch; and W. Allward, Torquay, staged miscellaneous collection, nection with the abow were adminably oarried oat by the nection

ROYAL AGRICULTURAL AND HOR TICULTURAL SOCIETY OF JERSEY.

\author{
Horticeltural Departerent.
}

Ocrober 30, 31.-The annual frait exhibitions held by this Society are worth a long jurney to nee, and that held on the above datet wan, if anything superior to any of previous year. The island hat long wince been famed for its Pears; and the oven quality of the grand collection shown on thit occamon proves that the island atill hold its own in that rempect. Apples have also wastly improved of late, but hardly an yet come up to the standard of large Eaglich show. The thow was held in the Society's

Pavilion, a bailding admirably adapted for the purpose; and the weather on the first day was fine.
Grapres headed the liet, but nomehow the Channel Islandere do not excel in this particular line. for the quality was not certainly anything like what is asually ecen at an averake Eaglish show. It being rather late io the menson for Black Hamburghs, there were but ewo exhilitiors, lat qoing to Mrs. Brayn (kr., Mr. Boubyer) ; and 2nd to Mr. A. Daviosom. The last-nawed exhibitor was alio lat with gool buaches of Gron with buth lacking in colour; and gong to Mr. J. Duphe, with amaller bunches. In the any other variety of bleck. Mr. Davinsos deservedly headed the lint with certainly the beat exhbie in the Grape classen, Vir.o. three buncher of that new Grape, Appley Towera The centre buach was perfect in colour and bloom, though rather umall ; the ind weat to Mr. H. BECK ER for Black Alicaster, samall both in banch and berry. but of good coloup. Muscat! were poor indeed. Bankets of Grapes were numerouly nhown, Mra, Baty winning lot for Black Eambarghe。Mr. Davinson and Mr. Brckir were equal let for any other black variety. the former with appley To and the latter with Alicante. Raskets of white cill for no spocial mention. Hakets el mixel Grapen, Mr. Brew ki. Mre. Braver, and Mr. Davingon, were 1ut, 2nd, and 3rd reapectively. APPSES were, prohably, for co'oar, size, and quality, the best ever before witnemed in the ikland. The splendid tunshine throughout the month of September had drabllem something to do with thin.
In collections of dessert Apples. sin varieties, Mr. H.
\(\mathbf{B E C K}\) wras facile princeps with Becker was facile princeps with Ribston, Coz's Orange, and King of Pippins (spleadid), Rosemary and Pile's Ruscets, and Cornish Gillifower. Mr. T. DE FAYe was 2nd, with
Reinette de Cauz, Golden Mejeetto. Ribston Pippin, Coupt of Wiok, Cornish Gills flower, and Hawmond't Seodliag. Colloctions of three varieties: Mr. BECKER was again to the fore, and Mr. E. G. MABETt 2nd.
In six culiaary varietien, Mr. T. de Faye wee lot, with aplendid samplea of Waraer's King. Waltham abbey Seedling, Striped Beefing, Beisette du Canada, Brabant, Belio Flear, and Blenheim Orange.
Mr. Brcker and Mpo E. G. MArett were equal list, the former with Calville 8t. Sauveur, Blenbeim Orange, Gloria Mundi, Golden Noble, Americsn Crab, and Relnette duCanada; and the latter with Bismarck, Lane's Prínce Albert. Holland bury, Emperor Alexander, Pearmaín, and Reínette du Canada. The above collec tions, both of demert and culionry sorts, were splendid, far above what is usually shown here.
In the clasess for single dishes, Ribston, Cos's Orange, and King of Pippins were represeated by specimens of unusual size and colour. Cornish Oilliflower was also of superior merit, (remarkably pretty), Golden Reinette, Wellington, Reinette du Cinada, Royal Ruaset, Hawthornden, Emperor Alexander, Alfritan, Glopia Mandi, Hotlandbary (Evad eolourf), Boinette de Cuzz, Warner'
Cox's Pomoan, Re.
Pears, as a rule at thome show, are a speciil feature There were no phenomenally large pecimen, as usually exhibited at these shown, bat aize and quality ruled throughout. For collections of deasert fraits, six varieties, Me. J. DiviarpORT was lat, with large and well-coloured specimens of Doyenné du Comice, Darondeau, Chammintel, Glou Mforcean, Duchesve d'sugoulếne, and Beurré Diel; Mr. De FAyE wal 2nd, with equally large and shapely frait, though not wo highly coloured, of Marie Louise, Doyenné du Comice, Máéshal de la Cour, Duchesse d'Angoule ze. Beupré Bachelier, and Chaumzatel ; equal 3rde weat to Mr. T. A. Neth and Mr. Beckels.
In the class for three varieties, the lst and \(2 a d\) in above changed places; equal 2 ad and 3 r 1 going to Mro Olenex and Mr brak far respectively.
For collections of culinary Pears, three varietien, Mr. Becker wal 1st, with Belle de Jersey, Lieutenant Poitoin, and Catillac: 20d, Mp. DE FiYE, with Beurré Chaigeau, Belle de Vire, and General Todleben
For twenty-five Chaumontels, let, gosd nize aud fnir calour, Mr. DAVEEPORT: 2nd, Mr. C. TALLIS, eomewhat smaller than the ist: 3rd, Colonel TuRWER.
Me. J. Duprif won the lat in the clscs for twelve Chaumontels; with Mr. D:iverpobt 20d, and Mesars. L. F. Le Masurier and Glenes equal 3rda. For five Chanmontela, Mr. DAVEAPORT was akain to the fore, with grand fevit; 2nd, Mr. L. P. Le. Masurier, better colour, but amaller.
The class for twenty-five Glou Morceaux was a tipe one, os aleo were the classes for twelve and fire. Mesaris. T. A. Neil. Davenport, TALLIS, and ASHELFORD, were the prizo-winners. Doyenné du Comice is becoming immensely popular, and threatens to supersede some of the older worta; Mr. NinIL y ith prise twenty-five were grand in sixe, hape, and ezguisitely,
coloured, and the clasees for twelve aud five were also apleadid. and the competition was clove iodee1. Mr. J. Covtamerse's (gr., Mr. Lane) twelve and fre Belle de Jerser were marvels of superior culture, very large, perfoct in chape, and the colour exoellent, theme eaily erored itt in each clas. Catillee, though fiow, were not \(s 0\) large mometimet sean, but MP.J. W. TheLla

The clases for single dishes were hoty contested, the ontrie being numerous, and the quality ever, made it no anecure for the judges. The following varieties were represented by large and beautiful fruit, viz., Duchesse d'Angoula ne, Pitmaston Duchess, Van Mona, Genl. Todleben, Beurré Bechelier, Durondeau, Marie Louise, Maréchal de la Cour, Beurré Diel, Bearré Superin, te. The beaviest Pear was a Belle de Jerseq, weighing 3 lo. There were two entries H, Brecer, F.B.H.S., of the St. Saviour's Nurearies, put up a
collection such as seldom zeen. The most popular Pears were exhibited in baskets, and there were some hundred or more exhishes of splendid coloured Pears, Apples, Peaches, Plums, \&o., together with a stand of three bunches of admirab!y-coloured together with a stand of three bunches of adm rackground of black Alicante Grapes, the whole having a bacgground of Palms and fine foliage plants, the tout ensemble having a splendid effect. Mr. Pb. Baileacie was 2nd with a collec-
tion of Apples only, amongat which were a number of local tion of Apples only, amongst which were
seedlinge, and varieties of inferior quality.

\section*{Chrisanthe iums.}

The Chrysanthemum Show was also beid at the same time and place. Groups were the principal feature, and the arrangement in most cases was very effective, especially in which fine foliage was allowed. Mr. Gr. HUQUET won in which fine foliage was allowed. Mr. G. LE H. L. DE FAYE, 2nd. In the class for groups with an edging of green foliage
plants only, Mr. LE HUQUET again won the special prize plants only, Mr. Le HUlQET again won the special prize
offered: with Mr. A. J. DE ST. Croix. 2nd; and Mr. A. J. Le QUESNE, 3rd. Trained plants were far behind what is usually seen here, but cat flowers were splendidly shown by Mr. N. Alisitis, who entered in almost every class of incurved, Japanese, and Pompons, with the result that he won the National Chrysanthemum Society's Silver Medal, and carried (if the bulk of the 1st prizes with splendid blooms.
Mr. GLENIN, of the Springtield Nurseries, was awarded 1st for a very tastefully arranged table decoration; and Bouvardias lor a very tastefully arranged table decoration; and Bore Mr. C. J. Nrcoule, and Mrs. Robin.

\section*{HIGHGATE AND DISTRICT CERYSANTHEMUM EXHIBITION.}

October 31 and November 1.-The exhibition held on the above dates was one of the best yet held by the Society, a keen competition reigning throughout. The entries and exhibitor were in exces of last year, whilst the blooms were charac terised by high finish, quality, and not merely by siza, points which the judges duly considered. An improvement might be made another year in the naming of the planta. The trained apecimena were placed on stages ; a long atake with the name inserted at top wan placed in each pot. We would auggest that, in future, boldly-written, correctly-spelt labels be used, and in the line of vision; this arrangement would much add to the convenience and information of those engaged in reportiog, and be of material assistance to that not small section of the public asiatance to that not masiliection af extend sach exbibitions for edactional parposes.
Groups of Chrysanthemums, arrangetin a spzce of 60 square feet, general effect, formed a leading feature, and in thisdivision
Mro. J. Brooks, gro to W. REYNOLD3, Esq., The Grove, was Mr. J. Brooks, gr. to W. Reynolds, Esq., The Grove, was
Ist, with a very finely.fiowered and well-arranged lot of plants. Mr. H. Eason, gr. to B. Noskes, Esq., made a good 2nd; whilst a very creditab!e arrangement secured the 3rd place to Mr. G. Saunders, gro to W. HAYE3, Ksq. Messrs. Broors and Easor gained the principal prizes in the classes for six trained plants-Pompons and large-flowering-with eramples of high cultural skill. For a single specimen plant (any class). Mr. Brooks gained premier honours with a finely-flowered example of Maiden's Blush.
A good and interesting class was that for three untrained plants (Pompons). Here the leading prizes were taken by Mesirs. J. Wricirlt and T. Jackson.
Cut blooms, twenty-four Japanese, not fower than eighteen parietics.-Some fine flowers were shown in this section, and Mr. J. Barch, gr. to J. Smith, Esq., The Priory, Mill Hill, was adjudged the winner of the lst prize. Some of his principal Howers were J. Shrimpton, C. B. Smith, W. Tricker, and Alfred Marehall ; a close 2nd was Mr. Rowbottom, gr. to H. R. Wrinime, Req. Here were noted good blooms of Viviand Morel, Phoebus, Sunflower, and Eda Prass.
Thirty-six cut bloomp, distinct, e'ghteen Incu ved and eighteen Japanese.-A very fine class. 1st. Mr. W. J. Burca, O. H. Payne, Etoilede Lyon, Van der Heede, Phoebus, Viviand Morel, and Madame Isaac \({ }^{\prime}\); incurved. Violet Tom'in, Queen of England. Baron Hirsch, and Annie Hoste. A capital lot of flowers gained the 2nd position for Mr, Rowbotrom.
Twelve Japares".-1st, Mr. A. Page, gr, to A. Taylor, Esq. Priory House, his noteworthy flowers being Princess May, Sunflower. C. Shrimpton, and Colonel W. B. Smith ; 2nd, Mr. S. I. Cook, gr. to J. H. Hartridese, Esq, who had, amongst others, fine blooms of Avalanche and Mrs. H. Payne. Six Japanese.-1st, Mr. C. H. Martin, gr. to Mrs. F. C. R. Lavgrry, and whose stand contained some fine blomsm of Colonel W. B. Smith and W. H. Lincoln; 2nd, Mr. A. PaGE, Avalarche in this lot being very fine.
Nix White Jap: nese.-1st, Mr. H. A. Page, gr. to F. Crisp, Req. ; here were beawtiful blooms of Madame Capnot, Madame Therìse Rey, and Rose Wynne. 2nd, Mr. J. Brooks, gr. to W. J. NswMAN, Req.. who, amonget other fine flowers, had a Very fine bloom of Madsme A. Moullin.
Six Japanese (white exciuted).-1st, Mr. E. Rowbotrom, With Colonel W. B. Juith; 2od, Mr. W. J. Burcr, who had
sunflowes. Sunflowes.
Twelve Incuroed and Twelve Japanese.-An attractive c!ass, in which the first honours were gained by Mr. H. A. PAAE, Amongrot incurved, he had fine flowers of Mrs. Heale, Madame


A good 2nd was Mr. Rowbottous, some of whose best flowers amongst the incarved varieties were Queen Cf Eagland, Golden Empress, and Lord Alcester ; Japanese, Sunflower, and Utop'a.
Thisty-six Pomrons, twelve varteties, in threes. - A brautiful and interesting class, in which some fine blooms were staged. 1st, Mr. F. Marthews, blooms were Adonis, White Mıdame Martha, and Wm. We stlake. 2nd, a fine lot from Mr. S. J. Cook; here Were good flowers, amongst others, o! Sueur Mélanie, and President.

Twelve Anemsn es. - Another good class. 13t, Mr. A. Jones, gr. to Miss WYBURN, Barnet, the W. W. Astor and Gladys
Spzulding being specially noticeable; 2nd, Mr. J. SANDForD. Spzulding being specially noticeable; 2 nd, Mr. J. SANDFORD. blo mos gained 1st honours to Mr. J. H. Walker, Gold Beaters, Mill Hill; Alfred Lyne, Jeanne d'Arc, and Brookleigh Gem were shown well. \(2 \mathrm{ni}, \mathrm{Mr}, \mathrm{H}, \mathrm{A}\). PAGE, whose best flowers
were Je une d'Arc and Novelty. (Incurv d).-let, Mr. J. H. Waliker, with a fine bloom of Baron Hirsch; 2nd,
Page, who showed Madame Darier extremely well.

\section*{Miscellaneous.}

A pretty and attractive class was that for a hand basket of tut blooma, arranged with Ferns, grasses, and foliage, the principal prize-takers being Messrs. WARD and RowbotroM. Button-hole bouquets of Chrysanthemums, arraged with Ferns, grasses, \&c., bronght out some elegant compositions,
the leadirg positions being taken by Messrs. Parkins and For a dinner-table decoration of Chrysanthemuma, \&c., an effective class, the principal prize-winners were Messrs. for twelve blooms with foliage, aud exhibited without cups or artificial dressing, the prizes being taken by Messrs. Brooks and Walker. Some boldly-arranged and very pretty exhibits were staged in response to the prizes offered for two vases of Japanese Chrysanthemums, arranged with any decorative eff:ct. 1st, Mr. J. Brooks,
Botrom. Table plants, principally well-coloured Crotons, вотTom. Table plants, principally well-coloured Crotons,
were well displayed by Messrs. EAs N , HAYLEs, and Tubbs. Mese wro. B. S. WILIIAMs \& Son, Upper Holloway, sent a sautifully freely-flowered group of Chrysanthemums, not for competition, contributing also some fine Palms for the decoration of the hall in which the exhbition was held.
Messrs. M. Hunt \& Son, Highgate, seat a very fine moncompetitive collection of fruit. Mesers. D. \& W. Buchavan, Stirling, also sent-not for competition-an excellent exhibit of Grapes, Tomatos, and very large coloured Vine-leaves of Grapes, Tomatos,
artistically displayed.
Tomato3, here of fine quality, were shown by Mr. S. J. Cook and Mr. H. A. PAGE. Black Hamburgh and Muscat Grapes by Mr. J. Tubbs, gro, to H. RIGNAUT, Esqo, and Mr. J. dessert and kitchea Apples were well shown by Messra. Savdford, Tubbs, and Waiker.
The show was well-managed by Mr. W. E. Boyce, the Hon. Secretary of the Society.

\section*{THE CRYSTALPALACE CHRYSANTHEMUM.}

November 2. -The annual exhibition of Chry"anthemams, held on the above date under the auspices of the Crystal Palace Co, was a very uccensful one, and quite diapelled any feara that may have existed that exhibited blooms, at any rate, will be poor this season. If the exhibits generally had been at all equal in quality to ome of the first-priza collections, the exhibition would have been one of the fineat ever held in the Palace.
In the first class, for example, that for thirty-sir Japanese blooms, in not fewer than twenty-four varieties, the blooms staged by Mr. W. H. Lees, gr. to F. A. Bevañ, Esq., Trent Park, New Barnet, were superb in quality. Nor did the varisties used ahow any lack of selection. of yellows we noticed Phoobas, H. L. Sunderbruch, M. Panckoucke, Thos. Wilkins, Sunflower, and Pallanza. The last-named was in the back row, Sunflower in the front. Of whites there were Mre. W. H. Lees, Mutual Friend, Mdlle. Thérèse Rey, and Madame Carnot. International was shown very fine, and exhibited the characteristic ro39 marling in the petals, which exhibited the characteristic ro3e marking in the petals, which one at the same time. Then there were Madame Ad. Moulin, E. Molyneux, Chas. Shrimptos, G. W. Childs, M Geo. Biron, Miss Dorothy Shea, CJI. Smith, Mons. C. Molin, Chas. Davies, and Viviand Morel. Next came the collection from Mr. J. W. McHattle, gr. to His Grace the Duke of Wellimaton, Strathfieldsaye. Mortimer, whose excellent blooms would have made a good 1st in the absence of Mr. Lee's stand. Among new ones, Mr. Mchattie included, were Madame Carnot, Duchess of Wellington, Mephisto, M. Chas. Molin, Pallanza, W. H. Lincoln, and M. Geo. Biron ; the 3rd prize was taken by Mr. C. J. Salter, gr. to T. B. Haxwood, Esq., Woodhatoh, Reigate, and there were three or more other collections. The claes for twenty-four incurved flowera, in not fewer than eighteen varietien, also fell easily to Mr. W. H. Lees, his blooms were of excellent build and colour, and being good at this early show, the promise for fine incurved blooms is a good one. Two fine blooms of Chas. H. Curtis were very effective and pretty, and Jearne d'Arc, Lord Alcester, Empress and Golden Empress of India, the new Globe d'Or, Mise M. A. Haggas, Lord Wolsoley, Priceess of Wales, Violet Tomlin,

Madame Dirier, Jno. Salter, \&c., were all good; Me. J Dumble, gro to Sir C. Phillips, Bt., Picton Castle, Havesford west, was 2nd ; and Mr. C. J. Saliter, 3rd.
The prize for eighteen incurved, distin st, was won by \(\mathrm{Mr}, ~ I\) Robinson, gr. to W. Lawrence, Esq, J.P., Elsfield Hoom Hollingbourne, Kent. Of new varieties, D. B. Crane, ot gold-coloured, rather small compact bloom, was ineluided but the quality in this cass was of less merit than in the preceding one. Mr, Jıp. Wyatt, gr. to J. Perbry, Ksq., Bradenhurst, Caterham Vallyy, was 2nd ; and Mr. T. Cargef, pr. to A. G. Hubbuck, Esq.. Weybridge, 3rd.
The qua'ity of the blooms entered in the clas3 for twadre C. Buss, Esq, Lodge He rairly Ashford, Kent, was leter, gro to included no novelties, and his best blomms were Jeanne dus and Brookleigh Gem. Mr. A. Start, gr, to Lo Compr, Ar Round Oak, Englefield Green; and Mr. W. Cullins, ge, to Round Oak, Englefield Green ; and Mr. We. Clllins, ge to
J. W. Carlite, Eicl., Ponsbourne Park, Hertord, ware had and 3rd respectively
The best incurvel variety in six blooms was Baron Hirch, shown by Mr. Butceer; and Mr. Jas. Wyatr, wifl tho same variety, was 2nd.
The class for eighteen bloom3 of Japanese, distinet, hhs Cor, gr. to J. Troțer, Esq., Brickendon Grange, Hertiond was lst, and he includel the following new ones:-Intan national, Commandant Blusset, M.ss Ethel Addison, Tho Wilkins, Louise, H. L. Sunderbrach, and a seedling, a harge flower, with broad fiorets recurving at tip, yellow, with muls of rose, rather rough as shown; 2nd, Mr. W. Coluless; and \({ }_{3} \mathrm{rd}\), Mro A. Jones, gr. to Miss WYBuRN, Hadleg Manor, Barnet.
Twelve Japanese blooms, distinct, were beet from M. A. Smith, gr. to R. W. Inctiss, Esq., Craigcudowie, Reigate Hill. He had Ethel Addison, E. G. Hill, Sunflower, and Col Smith, very good. Mr. H. Butcher was 2nd, and Mr. I Budworth, gi. to E. Hill, Esq., Rockhurst, West Hoathly, Sussex, 3 d

Viviand Morel was the best Japanese exbibited in the chan for six blooms, ani they ware shown by Mr. W. Robinsm, gto to Lord Justice Lopes, Heywood, Westbury. He had foor excellent blooms, the other two being unequal; Mr. C.Cos followed with CJI. W. B. Smith, in fine form ; and Mr. G. SMITH with E. Molyneux was 3rd.
In the class for eigateen reflered and Japanese reflezel blooms, distinct, the exhibitors were disqualified for inclutiog bloons' in the opinion of the judges, which were not reflesed. Extra prizes however, were a warded to Me. C.J.SALTER, Mr. R. C. Notcut, Broughton Road Nurseries, Ipswich, and to Mr. W. Robivgon. This is a clags which, as at present arranged, may at any time result in dissatisfaction.
The be.t eighteen Anemone and Japanese Anemone blooms (distinct) were shown by Mr. H. Prickett, gr. to J. M. Hanriki Esq., Bohm Lodge, East Barnet, and the quality of his colleption was admirable, M. Dupanloup, Jno. Bunyan, W. W. Astorn Sir Walter Raleigh, and Dame Blanche, were noticeable. X, J. Milner, gr. to Mrs. W. A. Higas, Willenhall Park, Barnem, Rei Mr. G. Steer, gr
Reigate, for 2nd place.
In the class for tweive Pumpons, three blooms of each, iise tinct. Mr. C. J. Salter was a very easy 1st, and shomed admirably, and he also won the chass for tweive M. Yasars and Mr. J. Krapp.
Mr. J. Milner, gr. to Mrs. W. A. Higas, Willenhall Puk, Barnet, won for twelve Japanese Anemone blooms, am the new Descartes, together with W. W. Astor and Bodoph Ragionieri were eapecially fine; 2nd, Mr. HY. Prictrrif Ragionieri were especially fine; 2nd, Mr. Barto, The Xuh 3rd, Mr. J. Justice, gr, to
Kempsey, Worceeter:hire.
Class 1 is was an exceedingly pretty one, being arranged t the neglected single varieties. Mr. W. Wells, Earlswer Nurseries, Redhill, was lst, and he had some very atrachan flowers indeed; Mr. W.C. Pagram, gro to J. Courtersx, \({ }^{\text {K }}\), The Whim, Weybridge, was 2nd.

\section*{Groups and Plants.}

There was little competition in the classes for groupp arragged for effect and in those for trained plants. The best group of 100 feet square was put up by Mr. Wher. but its arrangement was not of exceptional charactor. dmad plants, helped largely in the effect.
The smaller group (Amateur), upon 50 square foet, was mon The smaller group (Amateur), upon 50 square Bunfied Boerd by Mr. W. Webster, gr. to W. Higas commendablo.
One of the most important group classes was that for group of Japanese varieties (Amateur), arranged on an on. space, with foliage plants, both coloured and grem common Howe, gr. to H. Tate, Esq., Park Hill, Streatina col by very well carried out this idea; and he was foll Villa, Uppet T. W. Wilkins, gr. to C. Ralph, Eeq., Cranbrook BIRD, Bq9. Norwood; and Mr. Chas. Turne Manor House, West Wickham.
The best-trained specimen plant of Chryeanthemum ms W. H. Linculn, shown by Mr. W. Leake, gr. to J. M. Dovg he
 best dozen trained specimens were fro
nurseryman, Ayjenham Road, Croydon. The best arrangement of cut blooms of Carryan Pal Peroen

\section*{Miscellaneoug.}
 anthemums, including a singlo-flowered one den gellow dik a fairly large many petalled bloom with goldea goll
and paler yollow ring round eamo, the remaining part being cloeely spotted red; Looarno, a large golden yellow coloured Japanese, and others were very good. Mrs, Brisooe-Ironside is a pretty incurved Japanese bloom of attractive fleih colour. All the blooms were thown on the exhibitors' revolving circular flower stand.
Messrs. D. \& W. Buchamav, Kippen, mear stirling, exbibited naturally-coloured Vine leaves, and foe Grapes and Tomatos. Mr. R. C. Notčt had blooms of a good yellow Japaneeo Chrysanthemum named Edith Tabor; and Mies Mary Jackson, Upper Norwood, had florist's arrangemente. Mr. T. S. W \(\triangle\) RE, Hale Farm Nurseriea, near Tottenham, had Clarga group of plants representing decorative varietiea of Chryeanthemums; and Measrs. Jwo. Laing EONs, Forest Hill, London, S.E.. had a miscellaneous group of ornamental foliage and flowering plants.

\section*{BRIGETON AND SUESEX.}

November 5, 6.-The thirteenth annual exbibitton of this Society was held in the Dome and Corn Exchange on the above daten. Conaidering the great competition caused by other ahown, there wat room for congratulation upon the quality and the number of the exhibita. A new deparcure was made in the groups, and inttead of being semi-circular, as before, they were arranged in circles running ap the centre of the Corn Exchange. This kind of arrangement calls for more skill in placing the plante, and met with general approval from the viaitors.

\section*{Plants and Groupg.}

Mr. G. Miles, Victoria Narfery, Dyke Hoad, Brightoa, was 1st for the largest group; and he was followed by Mr. H. Head, The Drive Nursery, Brighton; bat all of the larger groupe were too densely put together as regarded their contents, and not so pettily arranged as the lat prize groap in a class of which the condition was that it must not exceed 9 feet io diameter. Here Mr. J. Thorpe, 20, Weat Hill Rond, Brighton, staged a very pretty lot.
For twelve planta, includiog Ferns and other greonery added for effect, Mr. G. Miles was again placed litt; Mr. J. Turser, gr. to Sir Greville Smytirs, Wiok Hall. Hove, Ind, whove group showed botter arrangemest, but the planta were of inferior quality.

\section*{Plants.}

Mr. E. Mebceien was let for four standards, Mr. T. Fairs lst for four pyramidal, and Mr. J. Bills lat for four dwarf plants. The last-named exbibitor was a good 2nd in both of the previousclasses. Table planta, Cyclamens, and Solannms were good, but not 80 numerous as usal.

\section*{Cut Flowith.}

It a olass for thirty-six Japanese, a Challenge Silver Cup and \&5 for the premier prize, broughtjout a good number of competitors, and the Cap went finally to Mr. Standiw, whose flower: were magnificent. Among the best were E. Molyneur, C. Devis, Sunflower, and Miss D. Shea; Mr. J. Hart, gr. to H. Head, Eeq, Shoreham, 2nd; and Mr. A. Shaughter. Steyning, 3rd. Mr. M. Standiog, gr. to Mri. Joıd, Patching, near Worthing. also came well to the front in a clase for twenty-four Japanese; Mr. M. Tourle, gr. to F. Barchard, Esq., Little Horeted, beigg 2ad in thif case. Mr. J. R. Heasman, gr, to Mrb, Oxter, Fen Place, Turner": Eill, beet Mr. £fardixG for twelve Fen Place, Turner
incurved varieties.

A class for twe?ve Japanese varieties brought out a very close and keen competition. Mr. G. Duncan, gr, to C. T. Lucas, Rsq., Warnham Court, Horsham, was l‘t; he being followed by Mr. C. Sayers, gr, to the Misoes Coor, Natley, Uckfeld. Equal 1sts would here not have been out of place.

\section*{Fruit.}

For three buaches of white Graper, Mr. G. Duscar beat Mr. W. Taylon, his berries being batter finished. Mr. W. Taylor, gr. to C. Bayer, Esq., Tewkeabury Lodge, Forest Hill, was Er.
well in front sor three bunches of a black varioty. The well in front or three bunches of a black variety. The competition for four dishes of deseert Pears was strong, Mr. Goldsmite, winning from Mr. HessMan here; but in an
equally strong class for four dishes of desert Apples, Mr. A. equally strong class for four dishes of desert Apples, Mr. A.
Kemp, gr. to C. K. Scrase Dickens, Eeq., Coolhurst. Horsham, was in front of Mr. GOLDsMII H , who was again let for four dishes of culinary varicties.

Vegetables
Were up to the usual good quality, but they were not quite so plentiful as beretofore. The chief stands-not for competi-tion-were Mesors. W. Balohis \& Sons, Brighton and Hassocks; and Mesars.J. Cheal Sons, Crawley, who had in both instances some grand dishes of Apples and Peary.

\section*{ENQUIRY.}
" He that questioneth mweh shall liarn much." -Bicon.
Cokr v. Anthractite Coal.-Will any of your reader kindly inform "N. F. P." the relative cont of coke and anthracite conl, say, for three, aix, or twelve months (the latter preferred)? An opinion from One who hat kept an accurate account of the cost in esch is alone denired. The nfe of sabes, de., would vitiate the comparison.

The Weather.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{E
5
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5} & \multicolumn{5}{|c|}{Tmipluatuen} & \multicolumn{3}{|l|}{Rumetand.} & \multicolumn{2}{|l|}{Brient 8U\%.} \\
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\hline 2 & 7 - & 9 & 38 & \(+213\) & \(+314\) & 2 - & 15.5 & \(2 \cdot 1\) & 35 & 35 \\
\hline & 7 & 12 & 39 & + 153 & + 312 & 2 - & 133 & 199 & 27 & 42 \\
\hline & & 11 & 39 & + 176 & + 402 & 6- & 128 & 89 & 27 & 38 \\
\hline 5 & 6 & 18 & 32 & \(+1: 7\) & + 383 & 0 nver & 121 & \(18 \cdot 3\) & 37 & 12 \\
\hline - & & 10 & 36 & + 129 & + 411 & 8 & 18 & 286 & 37 & 34 \\
\hline & & 10 & 27 & + 210 & + 337 & 1 - & 147 & 25.8 & 13 & 38 \\
\hline & 7 - & 17 & 30 & + 138 & + 382 & & 32 & 26.4 & 31 & 4 \\
\hline & & 13 & 29 & + 68 & + 300 & 1 & 176 & \(28 \cdot 1\) & 42 & 38 \\
\hline & \(5-\) & 17 & 97 & 12 & + 234 & 3 & 148 & \(28 \cdot 1\) & 38 & 35 \\
\hline & 5 - & 33 & 1 & \(+215\) & + 282 & \(3+\) & 149 & 216 & 4 & 52 \\
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\end{tabular}

The dietrict indicated by namber in the trat oalumn are the tollowing:
\(0,8 c o t l a n d, ~\)

0, 8cotland, N. Principal What-prodweing Districts1, Scotland, E.: 2, England. N.R. ; 3, England. E.; Prineipal Grasing, de., Districts \(-6,8\) cotland, \(\mathbf{W}\). 8 , Principal Graing, ofe., Districts-6, 8cotiand, W 10, Ireland. 8.: Whannel Iulands.

\section*{THIR PABT WEEE}

TIIE following aummary record of the weather throughont the Britiah Islande for the wesk ending November 2, fs furniehed from the Meteorological Office:-
"The weather was very changeable during the earlier part of this period, with frequent showers of rain, hail, or sleet in all districts, and occasional thunder and lightning at some of the south-western and southern etations. Towards the end of the week, bowever, a decided improvement took place, fair dry weather being experiesced generally.
"The temperature was again much below the mean, the deficit ranging from \(5^{\circ}\) in Ireland and the Chmanel Islands, \(106^{\circ}\) or \(7^{\circ}\) over Great Britain. The bigbent of the maxima were recorded either on Novembar 1 of 2, and ranged from \(18^{\circ}\) in 'Eugland, S.W.,' and \(57^{\circ}\) in "England, E, and \(8 .\), ' to \(49^{\circ}\) in 'Scotlond, N.' The lowest of the minima were registered 'Scotind, N. Tho lowest of the minims were registerrd in the 'Midland Counties and England, N.W..' to \(2 j^{\circ}\) in - England, S. W."' \(21^{\circ}\) in 'England, S. and Scotland, E. and W., and to between \(22^{\circ}\) and \(25^{\circ}\) in all other districts excepting the 'Channel Islands,' where the lowest reading was \(34^{\circ}\) The lowest values reported from thermometera exposed on the grasy where \(13^{\circ}\) at Worknop, \(16^{\circ}\) at Loughborough, \(20^{\circ}\) at Oxford, and \(21^{\circ}\) at Stamford and in London.
"The rainfa'l exceeded the mean in the "Channel Islands, and just equalled it in 'Ergland, S.,' but was rather lens than the normal in nearly \(l l\) the other districte, and considepably so the normal in nearly all the 'Midland Counties.'
"The bright sooshime varied considerably in amount orer different parts of the Kingdom, but exceeded the normal in most districts. The percentage of the possible duration ranged from 44 in the 'Channel Islands,' 22 in 'Ireland, K ., ' to 24 in 'Scotland, N., snd 13 in ' Evgland, N.W.'

\section*{MARKET8}

COVENT GARDEN, Novenber 7.
Plaste in Pots-Antane Wiokesula Pmose

 Chingionanthemuma. per 12 blooms. Chryasnthermuman.
Ruchara, per dozea Gardenia, per doz lapageria, jer doz Lilac, Fren
Lilise, French, p. ban Lilium lancifolium. Lify doren bloom: Maidemhatry Forn, per 12 bunchee. .o.
Margueritu. 12 bm.
Minnowette, \(12 \mathrm{bun}\).

\begin{tabular}{|c|c|c|}
\hline  & Wroh any & \\
\hline \(80-60\) & \multicolumn{2}{|l|}{Orohide:-} \\
\hline 日. & Oattloys, 12 bras. & \\
\hline 6-1 & Odon toglowern & \\
\hline 0-30 & \begin{tabular}{l}
arimpun. 12 bla. \\
Pelergoniuman menr-
\end{tabular} & 8 \\
\hline 0-1 & let, per la bunch & 10-69 \\
\hline & - 12 apray* & \\
\hline \(0-8\) & Pyrethrama, 12 bas. & 20 \\
\hline \(0-50\) & Romes, Tea. per doe. & 1 \\
\hline \(0-8\) & \begin{tabular}{l}
- ooloured, p.de. \\
- yellow (Mar6
\end{tabular} & 20 \\
\hline 6. & chaln), per dos. & 30 \\
\hline \(30-80\) & - red, per dosem & , \\
\hline \(30-60\) & 8tephanotia & 20 \\
\hline & Taberomes, 12 blman. & 0306 \\
\hline (1-30 & Violete, 12 buaches - Parme Fresch. & \\
\hline 0-28 & per busch & \\
\hline & Cesra, do. & 3-8 \\
\hline , & Mision* & \\
\hline 1 1-30 & Anaria, do. & \\
\hline
\end{tabular}


Potatos.
The trade during the patt week has bres quiet, and pricen aot wo firm in and stack at the depat hare alightig inerneel. J. E. Themas.

- Oroing to the large increase in owr oirculation, we are contributors voiul kinully aid us by sendime their communtoation contributors wiul kindly aid us by sending their communtoation net later than Wednesdast.
Boors: T. B. We knuw of mo botk treating of tove planta only. Other questiun mext week.
Bulbs: E.J. The condition is the reenlt of some injury to the base of the balbt by wire-worm, or some other caase.
Clmmatis Graftina: Rora. C. Aammala, \(C\). vitalbe, or any trong growing pecies of which eeedling can be raised. Graftiog on the roota is done in February and March in gentle bottomheat in a close house or in a frame within a warm house.
Dwary Kidney Beaks: Mignon. These are never grown in this country in cool greenbouse in the winter sesson, nor could they be so grown. The plant needs a minimnm warmth of \(60^{\circ}\) and the day temperature ahould not be less than \(70^{\circ}\) in bright, or \(60^{\circ}\) in sunless, westber. Good varioties are \(8 y 00\) Housp, which dues with little atcention; Negro Longpodded, Ne Plus Uitra, and for large pote and where space is of no account, Canadian Woader (Red-seeded Flageolet).
Frut Storina: Hopefuh. The book dealing with thin matter were both right and wrong in their teaching. As a mattr of fact, a fruit-room can sarcely be too cold, whort of lettiog the front aet in, st no fruit should be allowed to get frozen. To keep the frait-room "air-tight" from the first is not the right prectice, the fraite on being gathered parting with a good deal of their moisture, and means for the excape of thi must be adopted, or the excentive smount of moistare in a close place would certainly cause great low from decay being net up. Therefore, keep the windows open
night and day，unleas during very damp or foggy weather．After the lapae of a month or five weeks from the time of patting the balk of the fruit into atore，the amount of ventilation should be lessened by degreea，the frait being examined from time to time to atcartain if there in any moisture being still deposiced in any quantity on it，and if there if， then a moderate amount of air mast continae to bs admitced．In the third week in November， the room may be closed，and daglight quite ex－ cluded．It will be necessary to afford air orcasionally after that date，if the quantity of fruit in the atore is a large one，and the door and windown fit closely．It is a good plan to have a few ventilating clappers in the roof or upper part of the walls，for the purpose of letting oat the moisture after this dace．Very hard，late－ keeping varieties of Apples and Pears may be kept in boxes and large plant－poty，or barrels，but the choicer or softer－fleshed varieties keep beat when pread thinly on the shelves with nothing between them and the wood．Never use atraw，hay，or brown－paper on the shelves． When cider frait is laid in heaps out－of－doors and in barns，atraw is sometimes thrown over them as s protection against froat，and also spresd on the ground so as to keep the fruit clean；but in the fruit－room nothing of the kind is required．Straw． hay，and brown－paper，if they are dry at the firat， moon become moist，and in this state they are readily infeated by mould which may attack the frait，and the first two certainly impart mastiness to it．
Gros Guileatme Vine as a Stock for Doke of Buccleuch in an Early Vineri：F．S．Not as a general rule（except experimentally）advisable，an it would affect the early ripening of the Graper， but not much．If you think it deairable，as afford－ ing a longer anccesaion of Grapes from the early Vines，it might be worth doing．The atock，if of a black variety，alightly affect the colour of a white one worked upon it，and sometimes the flavour，which may be a good or a bad influence according to variety．The form of the bunch may aluo be affected somewhat，as well an the keeping qualitien of the Grapen；early varietie that may not be good keepers when growing on their own roots，haviog a longer season of use when grafted on long－keeping varieties．We may，therefore，infer that there is a slight thickening of the kin，or a greater proportion of tannin is present in the latter．The anbject is full of interest，and requires working out fully．
Insects：W．C．The caterpillar is that of the common Cabbage Moth（Mamestra brasnice）；it will feed on almost anything．Try an application of soot or gas－lime close to the stems of the plants．R．McL．－ Insects on Grapres：\(G\) ．W．Hunt．In one of the Grapes wa found the pupa of a small two－winged fly，imposaible to say of what apeciew．It may be that the berries are attacked by womething else in the first instance，and that the flies are attracted by the exuding juice．The berries were mach crashed，so that examination was difficult；a few gruba separately in a small brass or glan tabe would etand a better chance．R．McL．
Marikt Flowers：A．B．Carnations，Pgrethrame， Gladiolus，Schizontylis coccinea，herbaceous Paonien，Crocas，Snowdrops，Scillan，Narciasas， Talips，Roses，Lilies，enpecially longiformm，japoni－ cum，elegans，candiduc，and auream；Lily of the Valley，Solomon＇Seal，the beat varieties of Michselmas Dainies，and many more．
－Plavis，Fruits，NTG，To we Navied．－The appll－ cations to name flowers，and especially fruit，are so numerous an expenditure of tume，labour，and money，if which our roaders can have no idea．We are always willing to oblige our correspondents cas jar as we cxs．but the editing of the \(G\) urdeners＇ Chronicls is our business，to which everything else must guve way． Correspondents are respsetfully requested to observe the rule
that not more than six spectmens cas be dealt with at a time． that not more than six spectmens cas be dealt with at a time． senaer，to send also a mall contribu：ion to the Gardeners＇ Orphar Frond．Specimens should be good ones，carrefuly packed and numbered．Leavis only，of Floristi narieties cannot，as a ruls．be named．Correspondents sending plants or froits to be named，or asking questione demanding tive and researeh for heir solution，must not espect to obtain an anewer to their Naxes of Frulis：W
anss of Fruns：W，B．1，Emile de Heyet ； 2,
not recogniaed；3，Triomphe de Jodoigne： \(4, ~\) Benne Clairgean；5，Sotetite de Bavay；6，B， 1，probably Doyenns \(\mathcal{E}\) ．Eruit all mach＇decayed． 1，probably Doyenne du Comice，too much decayed forms of Beurt ；Diel， 3,4 ，seems to be different forms of Bourre Diel，Dat much dauaged．－Vigo，

 Scarlet Nonpareil；6，Mère de Ménage．－F．W． 1，King of the Pippins； \(2^{2}\) striped Bsefing；3， Cox＇s Pomons．－G．J．Hazlewood， 1 and 11 New Hawthornden；10，Manka＇Codlin；12， Rymer；14，Warner＇s King；13，Pear，Catillac．－ A．Chapman．Apple，Duchess＇s Favoarite ；Pear， Van Mons Léjn Leclerc．－Claud Lonsdale．1， Damelow＇s Saedling；2，bruised bayond recogni－ tion；3，Marie L ase；4，Autumn Bergamot；5， Bearre Diel；6，Catillac．－Bi．Bo of Kent？ Kant；2，Betow Seeding；⿹勹口 A A friston；6，French Crab． —G．D．Apples，1，Blenheim Orange；＇Stone＇s 3，Mère de Méaage；Pear，1，Vicar of Winktield， 2，Bearsé Boac ；3，not known．－A．L．1，Lane＇s Prince Albert；2．Blenheim Orange；3，Sweeney Nonpareil；4，King of Tumpkina Co．；Pear， Dachesse d＇Angoulême．－J．M．P．1，Pear not known；2，Manke＇Codlin；6，Trampington others so small，cannot recognise them．－John Sandland．Appley，1，Marie Louise d＇Uccle；2， Marie Louise．－J．D．You are right；the Par should have been sent earlier；and through in－ sufficiency of packing material also，we are unable to namefit．－Hendson of Son．Pear，Glou Morcear． A worse specimen could scarcely have been sent for identification．We cannot say what are the brown spote on the rind，it was brown all over，－ mach too over ripe．
Names of Plants：Correspondents not answered in this issue are requested to consult the next number．－ P．H．1，Rhamnus catharticus；2，Pranus lasi－ tanica，var．azorica．E．J．，Botley．Cratzgus Crus－galli，var．pyracanthifolia．－J．W．Commos bipinnatus．－J．W．B．1，Crucianella atplosa；2， Avacyclus tomentosus；3，Scutellaria altisaima； 4，we do not recognise，mend again when in flower．
 picta；2，Cypripedium venuatum；3，Iresine Herbatii ；4，Sedam Sieboldii ；5，Festuca ovina．－ R．J．G．A Golden Rod，perhaps Solidago cana－ densis．Our wild S．virga－aures is sometimes called Aaron＇s Rod．－P．H．1，Picea；2，perhapa Abies Nordmanniana；3，Abies；4，Paendotsaga Douglasi；5，Larix；6，Picea Menziesii；7，Abiea nobilis；8，Picea；9，Abies Webbiana；10，Abies nobilis；11，Taxodiam diaticham．It is mere guess work naming Conifers without the conew． You send more than six．－J．B．S．A，Lastrea lepida； 2 ，Nephrodium molle corymbiferum．－ Hortis．The Orchid you mention are remarkably fine．C．is Oncidiam pratextum，not O．crispum． E．Lelia cinnabarina．The Primula obconica does not appear to be remarkable．－H．F．sends Oncidium pretextum and Cattleya lateola．－W．M． Cattleya labiata，antumn－flowering variety，a plant now tolerably plentiful in gardens－Nortaleigh．1， Stapelia Bufonis，Bot．Mag．，1676；2，Callicarpa purparea；3．Corydalis latea．
Orchid Cultura：S．\(H\) ．All the pecies you men－ tion may be grown in the cool－house all the year， but they might be benefited by a elightly higher temperature while growing．Deadrobiams of the D．densiforam section as enumerated，often flower on the imported pseado－balbs．They should be kept cool and tolerably dry during the winter．In some gardens a position in one of the frait－houses is found to anit them．D．Findlayanam should be reated like D．Wardianum，after the growthe are fully made np．You might get Burberry＇s Amateurs＇ Orchid－Cultivator＇s Guide．
Pteris：Fern．It is not divesve which causen the brown markings on the Pteris sent．It is known to growers of these plant for market that a certain strain，which was originally named Pteris cretica magnifica，invariably get affected in that manner in autumn and winter．It does not atand cold or damp，at do the other varieties．Growers can pick it out by the hard feel of the fronda，and the prominence of the veining ranning from the mid－rib．It in better to get sporen of another atrain．
Rrododendrok Leayns Bitten ofe the Pcants： W．L．The work of mice or weevile，probably： wo cannot say with certainty．Set mouse－trapm． Examine the window－boxen at night for the weevils．The latter are active little beetles， bolting at the merest glimpse of a light．
Rose Buseses：Rosa．The bushes may be thinned of their aboots at this aeason or at the proper praning
time，March．It is advieable not to prane at thin aeason，for should the winter be a mild one，man of the buda would atart to grow very early in th spring，and there is alwaya a riak that these will b nipped by apring froste．
Rose Grafting：Rosa．At the end of the month of Docember and early in January，on potted atocks gradually forced into growth．The temperater should not exceed \(60^{\circ}\) by day or \(50^{\circ}\) by night．
Strelitzia augusta：Munches．We whould think that if you do not re－tub the plant for a jear on two，bat merely surface the ball after removim some of the old soil，keep the drainage right，ad give the plant a good rest in the cooler part of the atove，reducing the quantity of water at the root it that time it will show flowerm．The plants should not be afforded much heat，as the temperatare of in intermediate－house arits them in the winter and in summer，in warm farts of the country，they will do well out－of－door，or in the greenhoura bat with you it will be better to keep them almys under glas．Loose potting leads to atrong gronith and is therefore ananited for the plant what mat be grown in hoase of the asual aizs．
Tea Rose Stocks：Rosa．Seedling Dog－rone（Bon canina），or plante taken out of hedgerom，de The true Rose polyantha is aid to make an ar cellent atock．Tea Rose need no apecial kind of stock．Some of the strong growers are better on their own roots，and in all casea the union of stod and Rose ahould be under－ground，otherwite vary severe frosts might dentroy the entire badded put of the plant．
Traasteen Apple：Hibernia．There is no Dauia Apple named Trassteen，but the Danith nama of the German Apple Gravenstein is Graaten．Pro bably，the＂\(G\)＂in some way has been exchaggel for a＂T．＂Some varieties of Gravenatein are o of a comparatively new date，and all of them an very fine，at least when grown in our norther climate．\(N\) ．
Tomatos，Fruit，ano Vegetablef：J．Gruigen Your communication hat not been received．
Water lilies in an Open Pond：R．W．\(A_{1}\) Johannesherg．Nympbæz corrulea（stellata）havigy aucceeded，hows that the nature of the wiver not at fanlt；but Nelambiam specionam require to have the needs nowed in flower－potii warm water nader glam，and the plants pat in the pond after the water in the latter hat becon warmed by man－heat．This may be doas placing the pot and plans intact into a buk filled with rich loamy soil，and sinking it to ti bottom of the pond．The soil in the basket woul be covered with atones， 10 ess to keep bue will it place．Some of the more tender specia Water Lily sacceed only near the margias lake where the water is warm，refuning to gron all in deep water，in that which is diatant fom the bank．Mesara．Siebrectit \＆o Wadiey， 40,1 ， Avenue，New York，would be enabled to the the required aeeds．
Whers to take Shoots of Hardy Puyts rie Grafting：Rosa．In mid－winter，laying that siagly in the earch to two－thirds of their lenght in a cold place，so an to retard all nap movereatil the latent date．

Communicationt Recerived．－J．H．Wheeler．－Frod gand－ much obliged but the report was already to had whith F．W．Meyer．－Subscriber．－E．Novik，－J．Back Gagiacers－



 PHoTOGRAPHS，SPECIMENS，ACa BRCCIVKD．－J． Naudin．－W．W．Hanbury．－C．de Murard． CONTINUED INCREASE in the CIRCOLATTO
＂GARDENERS＇CHRONICLN．＂
POBTAITT TO ADVEATISERS．－The Publishor has the atin＇ faction of annowncing that the circulation of the＂f the po Ohronicle＂has，since the reduction in the
Increased to the extant of more than and that it continues to increse weely．
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\section*{DUTCH BULBS.}

\section*{GREAT UNRESERVED SALFS.}

\(\mathrm{M}^{\mathrm{E}}\)ESSRS. PROTHEROE AND MORRIS will SELLL by AUCTION at their Central Sale Rooms. 67 and 88, Cheadeide, London, NAMRD HYAMANTGS, TULIPS, lapge consignments of NAMRD EYACINTGS, to suit the Trade and Private Buyers.
Also ROM
DROPS, \&
On view morning of Sale, and Catalogues bad.

\section*{WEDNESDAY NEXT.}

74,500 JAPANESE LILIES.

Boing the contents of 777 Cases just to hand in grand 23.88) LILIUM ATRATUM

34,240
8072
\(2.5 \pm 4\)
2,980
4
Le contentorum Knneg
the conteats of 248 Cas
BPECIOUM ALBUM RUBRUM
MREPOMENE TIGRINUM SPLENDENS


160,000 KENTIA BELMOREANA, 40,000

\section*{FORSTERIANA,}

Jast to hand in excoptionally fine condition, English-growi LILIUM HEARYI, 4000 SPIRA JACALOCHORTI, 100 clump HELLLEBOBUS NIGER, HEME MOCALLIS AURANTT ACA MAJOR, English-grown LILIES, Hardy BORDEE PLANIS, together with-

\section*{26 Cases LILIUM RARRISEI,}
containing sbout 2500 large Bulbs, and
150,000 mired 8 PA IISEIIRIS, fine Bulbs.

M
ESSHS. PROTHEROE AND MORRIS Sale will SELL the above by AUCTION, at their Central 2VE.SDAY NEXT, November 20 , at \(120^{\circ}\) Clock.
On view morring of Sale. and Catalognes had.

\section*{Chesterfield.}

SALE of the LEASEHOLD NURYERY and GLASS ERECTIO*s, in one lot. as a going concern, and the sTOKK-IN-TRADR, by Aucrion, in lote.

MESSRS. PROTHEROE AND MORRIS are in-tru ter by the Chasterfield Nurseries Company (Limited), to dErL by AUCTION, on the Promisen, The Ashgate Nammioe, ( heate? fiolic. at an early date (unleas urevioualy in A.hgnte koad, about 10 Acres io extent. with 18 Greent hoone heated by Mot water Piping. Ince ediately following Will he ifforen, in suitwhe lor, the ex emare Outho HuMtsEy, conay: ining Ferns and a general avortment of Pot \(\underset{P}{P}\)


\(\mathrm{N}^{2}\)
Friday Next, November 22 ESSRS. PKUlHERUE aNd MORRIS havg Hed ved instructions from MESSR*. OHARLESWORTH * C). Heaton, Mradford. Yo.ks. to SELE by AUUTION, at their Auotion Rooms, of and 8R, Cheapperde. 12 o'Clock: -a fine EPIDENDRUM WALLISII, in Rplendid condition. A few established bnt unflowered plante of Dendrobium Hi.debrandii and Dendrobium velutidum, roife. A nice plant of CATTLEYA INTERMEDIA ALRA (quaranteed true). Also CYPRIPEDIUM INSIGNE SANDEHIANUM (Sander \(\because\) type). a few semi-estabished plants of their wonderiul strain CATTLEYA AUREA and Groas (Section), which is well known to \(h_{2}\) ve prod
Also a small plat of
CATTLEYA MANTINII, which recently received a First-Class Certificate at the Royal Horticultural Society's Meeting Fine plants of Odontoglossum Halio -
LeLho-CatTLEYA CANHAMIANA\& TRESEDERIANA. Aleo
CATCLEYA and LEECO-CATTLEYA SEEDLINGS, and a very intereating lot of Cypripedium Seedlings. There wrill also be included 300 lots of Established,
Imported, Orchids (other properties).
On view merning of Sale, and Çatalogues had.

\section*{WEDNESDAY NEXT.}

ROSES, FRUIT TREES, PLANTS \& BULBS
Pyramid and Dwarf-trained Fruit Trees, including APPLES, PFARS, PLUMS, CEERRIES, NECTARINES,
PEACHES, \&c. of choico named sorta. Also CURRANTS, GOOSEBERRIES,
200 Choice named standard Roses, from a leading English Nursery. 3,0 standard, Half-standard, Dwarf and climbing ROsES, incluring many of the newert and best known sorts, in sple
Grower in Germany.
A surplus Stock of well-grown Ornamental Shrubs, FRUIT TREES, \&c., from an English Nurbery. oor Cultivation, Azalka MOLLIA, a variety of LILIUMS, FLOWERING TREE PIEONIES, ©c., from a Dutch Grower; LILIUM HARRISII, from Bermuds ; FREESIA REFRACTA ALBA
\(\mathbf{1 0 , 0 0 0}\) Best Berin Illy of the Valley Crowns, just
A Consignment of Azalea indica and mollin, well furnished with Flower-buds. A rariets of DRACINAS, LATANIA BORBONICA. CORYPRAS and other PALMY. and rarlous
A SPECIAL COLLECTION of EXTRA FINE HYACINTHS. comprising moot of the best portt, specially melected for Glass and Pot Culture. Great variety of TU
OROCUSES, rare Narcissus, sNow Drups, ec.

\(\mathrm{M}^{\mathrm{R}}\)R. J. C. STEVENS will SELL the above by AUOTION, at his Great Rooms. 38 . King street, Covent Garden. W.C. on WEDN.
past 12 o'Cloci precieely.

On view moroing of Sale, and Catalogues had.

\section*{lhurnday Next.}

GREAT SALE OF ORCHIDS. By order of Messrs. Livden, Bruseels:
MR. J. C. STEVENS will SELL by AUCTION, at his Freat Roomas. 38 , King 8treet, Covent Garden. W.C., on THIlRSDA Y NAXf. Novem er 21, at haliCATTLEYA WAROCQUEANA EXCELSIOR A grand new type of Linden's famous autumn-flowering
Labiaia; the most magnificent form ever introduced. In very fine order. Collected in an entirely new district.

ODONTOGLOSSUM CRISPUM.
Linden's grand "Pacho" type.
Collected in the same woods, from which have been obtained all thoee magnifient fetime flowered in the celebrated Colleotion of Mons. Dall emague at kamboundet, whith wavelknowu collections.
OATLLEYA APECIES. -Probably i natural Hybrid botweon Gigae, aurea, and Hardyana, Selected and most diatinot
OATTKEYA REX:-Linden's King of the Catheyas. Buperb seleoted establishod plants.
NEW HYBEID CATTLEYA.-C. Lawrencean \(\times\) Leelia cinnabarina. Fine healty plant.
Linden's Chinese wonderful varieties of Cypripedium inaigne; fine established plants of Cochlioda Noetzliana, Vanda apecies, probably new; Cattleya Mencelii, Phaius Hum-
bloti. Catuleya mazima giquntea, and many others; bloti, Catuleyg maxima gimantea, and many others;
together with several Completo Editions of the Lindesia, together with several Co

On view morning of Sale, and Catalogues had.

\section*{DUTCH BULBS—DUTCH BULBS.}

\section*{Halos noarly every day, in Large and small Lots, to eust all Buyers.}

\(\mathrm{M}^{\mathrm{R}}\)R. J. C. STEVENS will SELL by AUCTION, at his Great Roome, 38, King Street, Covent
 conergm nts of Choice HYACINTHY, TULIPS, CROCUSRS,
NARCINWIIS, and othes BURS Narcinults, and onher Buthe arriving daily from,
known farma in Holland, in the finert pembe condition. On view morning of Salo, and Cataloyues had.

Sale of Monuments, Architectural and Carden
\(M^{E}\) ESSRS. HOKNE, DUN, AND EVERSFIELD ing from buainers. to SELL by AUC MION. Juhn on, retirNos following day at Twelve \(0^{*}\) W. on THUKED YY, Nor al andock. comurirink Marble, Stone. and Granite Mound inve Crosees, Granite Obrlisk \(2 /\) feet 6 inches high, Moumente Chimoney- piects, quantiry of Urnamental Va-es, Fonitble Mortars, Models, Moulds, small pieces of maurbie and aname Working Pıant, Fndlews rulley ( 10 carry 4 tons), set of she Legs. also Drawings. Photographs. \&c.
May be viewe two day previous, and Catalogues had on the premisea, and of HORNE, SON, AND EVERSFIELD, 17, Grei

WANTED, TO RENT, on Lease, a NURSERY, with 800 to 1200 feet run of Glase, autable
Cucumber and Tomato Growing.-A. B., Mr, Olarle,

WANTED, a FLORIST' and NURSERY. good Mirket Towns; with plenty of ©lass, Heat, and hand; be Freehold, or long Leasehold - Stare full particaln and lowest price to ORCHID, Boz 305, Willing's Advertisement

\(\mathrm{F}^{\mathrm{o}}\)OR SALE, a small valuable long leasohold NURSERY, 6 miles from Covent Garden. Seven large Greenhouses, well stocked itwo Vineries, Cucumber-hou-E.E.
Plant-houses, five-roomed Cottage. Low Ground Rent. Leme eighty-six years to expire. Eighty-five feet Glase. Pucing main road. All
FOK SALE, MAKKEI NUKSERY and 000 inh oitants, and within elsy reach, on Main Lines Manchester, Liveruool and o her large centres of population 9 acres choice Land, \(D\) welling house, fuurteen modern Glise hou-es (nearly 1400 feet run). Vineries, Tumato, Cracmber, Mlant, and Fo. cing-houses. All efficently heated and stocted; in full working order, and in one of the best pnesitions in the
kingdom. Address, PROVINOIAL. Gardeners' Chrowiche kingdom. - Address, PROVIN(iALL, Gar
Office, 41, Wellington Street. Strand, W.C.
\(\mathbf{N}^{\prime}\) URSEKY, SEED, and FLORIST BUSINESS. - Genuine, established many years; good tont (small), Midland counties; good neighbourhood and consest tion, splendid seed trade. Groor shop and hous; position ; small Nursery. Price for Greano Plants, Trees. Shrube, , Shop Fixtures, Seed Drawers, Stock in Trade. \&e, ahout \&250. Splendid opportunity; rentellowNURSERY, Gardeners' Chr
Street, \&trand, London, W.C.
The Rojal Eorticultural Establishment, Torquay.

TO BE SOLD, as a Going Concern, all that old-establi-hed BUSINE 48 of a NURSEKYMAN, ter many ears carried on by Mr. C Phillips. at Torquas, are too rougbly and in every way adapted for the business, and occupy a magnificent position in Union Street at the junstion of toor of the moat important basiness thoroughtares. The busiaes. is the oidest of the kind in Torqumy, and is now in full who ing order, ample proviaion having been made for man with coming Chrinimas and Eaver trade. Wa apran opportouty a mo erate capiral this offere an unusuaderate term
 Auctioreer. Torquay.
NUKSEKY for SALE, in important town, of South Coast. Eatablished over 30 years. The property consists of three Glassbnuses. all in good work Id Gremer Propafatina-hou e. Frcing-house. Cusumber-house, \&.., fitted with water-supply tanks; Foremans office, and boiter-bed brick pite for forcing, and everal glass frames for sundm, The Surplus Stock Sales realise from 2300 to which more than pay for hring, rater, and and sold last gown ton and a quarter of Tomstos were grow. Plenty of room acd the demand was greater than the ere is a good trade dow scope for growing large quant Lease 63 years to rill in cut Fowers ars and Stock at valuation, which can be reduced tosuit pur Personally inspected and thoroughly recommended byMoCORQUODALE AND CO., Trade Valuers. Anction
TO BE LET, Groveleigh Nursery, oonsisting of aine Glasohouses. Span and lean-to, suitable for Market Growing. Immediate po
HODSON, Market Place, Retford.
WATERCRESS BEDS.-TO LET, aboab one Railway; two minutes walk from station.-Apply by letwors Railway; two minutes walk from statio
149, Loughborough Road. Brixton. S.W.

Hooton Estate, Cheshire.
TO NURSRGYMRN, FLlinRsTs, and OTHERS. 'O BE LET, the Productive Garding an es HoOTON HALL, extent bearly acr Tree-. The Ginat comprises Greenhousp, three Cucumber, and M-loD Houses; there are alen, good Gardeners' Houre. For further particulart, apply to M

PROTHEROE AND MORRIS, HorticuL
 touk Ra, Monthly Hortioultural lleguter had om application

\section*{EXHIBITIONS.}

T
WICKENHAM HORTICULTURAL AND THEANNUALAUTITMN SHUW OFCHRTSANTHEMUMS, FRUIT, VE he held in the Town Hall, Tw ewenham,
WEDNESAY, November \(1 甘\) and 20,1895 .
Entry forms and all further particulars may be obtained from the Hon. Secretary,

EDWARD F. GREEN.
OUTH SHIELDS and NORTHERN COUNTIES CHRYSANTAEMUM SOCIETY. The above Show will he held on W RDNESDAY and THURS-
DAY. November 20 and 21 , 1895 , in the Rosul Assembly Hall, Douth sbields. 10 in PRIZES.
For schenules apply to BERNARD COWAN, Y.R.H.S. Hon. : ec.. Harton. south Shields. SECOND INTERNATIONAL H
Under the high protection of His Majesty the King of Sarony For particulars. Schedules, \&c., write to the Secretariat de weiten faternaci Marent


\section*{BIRMINGHAM CHRYSANTHEMUM SHOW,}

\author{
1896,
}

WILL BE HELD ON
WEDNESDAY and TEURSDAY, NOVEMBER 11 and 12.

\footnotetext{
HOROROHIDS and GARDENERS to Grow them, apply to 8ANDER's, St. Albans. The fineet
 Strong cuttiggs.
Catalogue, one man
}

To Nurserymen, seed Merchants, and Florists. If J. BLACKBURN AND SONS are offering the Trade; also Petersbarg Mats and Mat Baga, Rafliw Fibre, The Trade; aleo and Shading.

4 and 5. Wrorm \(\begin{aligned} & \text { Priced } 8 \text { free } \\ & \text { sireet, E.O. }\end{aligned}\)
CARNATIONS. - Self colours a special feature. \(\checkmark\) Malmaisone, beautiful soft pink var, good stuff, ready for flowenng. Pots, 12s. to 18 s . per doz. ; blusa var., 98 s. to 12 s . per dozen. Send for Catalogue.

CEAS. A. YOUNG, Floral Nursery. Weat Derby.
Orchids-Orchids-orchids.

TWO or THKEE HUNDKED fine specimen Phalænopsis grandiflora, amabilis, sanderiuns, and Schilleriana; also tome fine plants yellow Cybriper
insigue in bloom, and extra fine plants of Cypripedium Boalli to be eold cheap for cash. Ap,ly to

MLLER's BERLIN CROWNS LILY OF THE VALLEY are large, piump, solid crowos of the true early variey, force splencidiy and produce long appays
with many lagebells; 5s. \(6 d\). per 100 , bis. per 1000 . Extra 8 trong Imported clumpsiLily of the Valley for forcing, full of flowering buds 10s. atd 12s. per dozen. Orders 10s. upWards carriage paid.
F. MILLER AND
CO 100,000 SPLENDID, BUSHY WALL Yellow Tom Thumb, Black-brown Dresden, all at 18. Bdo. per 100 , arriage paid; 12 s . per 1000 . Fineat Double German lote, well mixed. IR. Hdo. per 100 , Iree.
G. F. LETTS, Florit. W Ret Baddon, Rugby.

Important to Mushroom Growers. CUTHBERT'S SPECIALITE MUSHROOM
 R. AND G. CUTEBERT, Seed,
Southaste. N . Establizhed 1797 .

SE
EEDLING and TRANSPLANTED FOREST



 248.3 to 31 feer, 288. Sp.uce Fir, 2 gr., 128 per 100199 to
 hill planting. 10s. per \(100.1,2\) yr. to 3 yr. transplantum, 148 , 2 to 148 ;
Oak.
anatri

 GABLIES MITCHELL, Nurserjman, stiantaer.

\section*{EVERCREENS-EVERCREENS.}

NOW IS THE TIME TO PLANT.
JOHN PERKINS AND SON offer the following Shrubs, in large quantities and excollont quality, all
havilg been receutiy transplaned:-
NGLI-H YEWS, \(2 \ddagger\) to 3 , 3 to 4 , an 4 to 5 feet.
GOLDEN YEWS. 2103 , and 3 to 1 foet
CUPREBEUS LAWSUNIANA, ito 5. 5 to 6 . and 6 to 8 foet. RRECTA VIRIDIS. it to 5, and 5106 feet TH̉UJ̉OPSIS BOREALIS. 8 to B , and 6 to 8 feet. RETINOSPORA PLU YOSA, 4 to 5 , and 5 to of feet. RETINOSPORA PLU 4 OsA, 4 to 5 , and \(\triangle\) ÜCÜBA J APONICA. If to 2 and \(y\) to \(2 f\) feet. LAUREL CAUCABICA, 4 to 3.3 to 4 . and 5 to 6 feot.

ROTUNDIFOLIA, 2 to 3, and 3 to 4 feet.
POKTUGAL, 2 to 8.8 to 4 feet
HÖLLY. GREFN, 2t to 3,3 to 4 , and 5 to 6 foet.
52, MAREET SQUARE, NORTEAMPTON

\section*{PLANTIHG SEASON. \\ HARDILY-GROWN Forest, Fruit, Trees \& Plants Evergreens, Roses, \&c.}

Stocks quite Unequalled for QUALITY"" "VARIETY," \& "EXTENT. DICKSONS \(\left.\begin{array}{c}\text { Nurseries } \\ \text { (450 } \\ \text { Prese }\end{array}\right)\) CHESTER.

\section*{FERNS!-FERNS!!}

50,000 Prime Stuff, in \(2 \frac{1}{-3}\) inoh pots-PTERIS CRISTATA, NOBLLIS, MAJOR, TREMULA, and other Best Marlet Sorts, at 9s. per 100.
Good, olean, and bushy stuff, in \(48^{\circ} \%\), at \(48.6 d\). per dozen.
Abore prices are for cash with order only.
All ordors carefully and promptly ezecuted. An inopeotion

\section*{B. PRIMROSE,}
blackheath nurseries,
ST. JOHN'S PARK, BLACKHEATH, S.E.

\section*{LORD PENZANCE'S HYBRID}

\section*{SWEET BRIARS}

8trong flowering bunches from open ground. 1894 varietien, Ss. each ; those of 1895, 78. 6d. each.

\section*{Full particulars of}

KEYNES, WILLIAMS \& CO., Salimbury


ELMS - ELMS - ELMS.
All worked Trees. Vastly superior to seeduags.
 141010 feet. ass. dors.



\section*{catalogues frke.}

JNO. JEFFERIES \& SON, ROYAL NURSEBIES, CIBENCESTER.

\section*{100,000 FRUIT TREES}

Will be sold at Parry Hill. Oliffe, near Rochester, Kent (arjuning Cliffe 8tation, Bouth Rastern Rallway), on NOV KMS-
 Chernita; 20,000 B B dwio bluck and Red Ournank. 18,000 Gworeberrien, 50,900 knupberrion, 1000 Now Plum, Monarch;

 \(100000^{\prime}\) Myatr' s Spring Oubbage Planbe, 201,000 Cue Lettuoe
 THEROE AND MOBRIS, 67, Cheapoide, London, R.O.

\section*{FERNS spegâlur.}

Our Collection is untrivalled. Over 1400 species nad rariotree of Stove. Greenhouse, Filmy, Hardy Exotio, and Britiah Veras. For prioes of these and for specinuly ahanp oolioction.
tiful variety, see our Ontalogue, free on appliontions.
W. \& J. BIRKENHEAD, F.R.H.S.g FNRN NURSERIKS. SALE, near MANCHESTER.

\section*{LARCE SPECIMEN HOLLIES.}

From 8 to 8 feet. well furaished with shoots to the ground. JOHN FRASER, The Nurserien, South Woodcheap sperimen Hollief, which are suitable for planting in large townsor elsew here. Thasored kinds, such as Scutica, Whiteberried, Canadian, Her gehog, Bas-leaved, Nigresceno, and
ochors. These Hollie have bean regalarly tranaplanted, and othars. Theoe Hollie: have bean reguinry tranap the cround, Will pecial Low Prios will be quoted for large quantíties
sires and Prices may bo bad on application.

\section*{RHODODENDRONS.}

Well furnished and well budded, with from eeven to tweaty Majobity brive on Terir Own Roots. they are withoat doubt the beat Bhododendrons in commerce.

HARDY AZALEAS.
All the moot beautiful varieties, varging in hoight from if All the mont beeutitul rarieties, varying

\section*{ANTHONY WATERER,}

KNAP HILL NUREERY, WOXING, SURREY. WHEUBS.-Ampelopsis Veitchii, 18 in. 328.8 :



 Philli ense white, 4s. per dor. Evooymus j ponica, 10 nech,








 GARLIES MMCHELLL. Nureoryman, Aumarter:
JOHNBON'S IMPROVED MUSHROOK SPAWN.
REING one of the largest D Manufacturers of Muelhroom spawn, and heeping over lo cows.
 Special Price for burge quantities HANGEB EILL, EALIMG.

\section*{FERNS－FERNS－FERNS．}
30.000 P．CRISTATA in thambs，good， 1000．Price list of other varieties，and large Ferns in 48 ＇s and 10co．Price list of
\(32^{\prime}\)＇on application．Inspection invited．Free on rail in
London．－J．HILL．Nurseryman，Lower Edmonton，Middlesex． GEEDLING and BEDDED SHRUBS，\＆c．－ \(\mathrm{N}_{\mathrm{s}, \text { ．per } 100 \text {－Virginian Creeper，} 2 \text {－} \mathrm{yr} \text { ．，} 6 \mathrm{bs} \text { 。 per } 100 \text { ；Box Tree，}}\)

 8 in．，6si，per 100 ；Cotoneaster mic．， 1 ft ． \(3 \mathrm{ss}\).6 d ，per 100 ； macrantha， 10 in．， 10 s．per 100 ；Enonymus japonica， 6 in．， 83．Der 100 ；Gueldre Rose， 9 in．，6s．per 100；Honeysuckle，
Common，strong，6s．；H．japonica，128．per 100 ；Ivy，Irish，
 id．，7s．6d．：R．squarross，6－in．，40s．per \(1000 ;\) R．piumosa Lobbii， 121015 in ．， 25 s ．： 15 to 18 in, ，30s．per 1000；Thujop dolabrala，

GABLIRS MITCHELL，Nurseryman，Stranfaer．
UNEQUALLED ARE THE FOLLOWIKG FOR FORCING：－
BUDS INNUMERABLE．
RHODODENDRONS，finest named，
AZALEA MOLLIS，in great variety．
GHENT VAR．，finest in the Trade．
PONTICA，unequalled．
AN゚DROMEDA FLORIBUNDA．
JAPONICA．
KÄLMIA LATIFOLIA． MYRTIFOLIA，very fine． RḦODORA CANADENSIS． Dozens，Hundreds，or Thousands， CHARLES NOBLE，BAGSHOT

BARR＇S ENGLISH DAFFODILS．－The Descriptive beatatiful and fashionable of spring flowers．New Descriptive Catalogue now ready，sent free on application．
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SPRING－PLOWERING BULBS．－Send for full bescriptive List，ready September 1
Descriptive List，ready September 1.
BARR＇S AUTUMN－FLOW ERING CROCUSES，MEADOW－ SAFERONS，CYOLAMEN，SCILLAS，SNOWFLAKES，\＆C
List free on application
BARR＇S SEEDS for Present Sowing．－Oatalogue on appli－ cation．

\section*{GRAPE VINES AND ROSES．} JOHN COWAN and CO．
Have this season a large and splendid Stook of Grape Vines suitable for Fruiting in Pots and Planting Vineries．Also a large and splendid Stock of Tea and other Roses，in pots．
Descriptive and Priced CATALOGUE post－free on applica－ Descriptive and Priced Catalogue post－ree on app
tion to the Company－Nurseries，Garston，near Liverpool．
The Vineyard and

\section*{CHRYSANTHEMUMS．}

H．
CANNELL \(\triangle N D\) SONS＇Stock is the largest and completest in existence，and in the finest possible condition；will certainly give satisfaction in all parts of the world．As a proof they append the following：

M．C．Gabain，Havre，France．
With the plants you have sent me，it will interest rou to learn，at the exhibition held here，I was a warded the＂Grand Prix d＇Honneur，＂i．e．，the highest award over all other exhi－ bitors，a valuable Sêvres Vase，presented by the French Pre－ sident；also two Gold and one Silver Medals．It was gratifying to receive the aseurance from all competent judges that nothing finer than my display had ever been seen in Paris，or \({ }^{\text {r }}\) else where．Amongst the most admired was your Sunflower．

\section*{SEND FOR A CATALOGUE．}

\author{
SWANLEY，KENT．
}

\section*{CHRYSANTHEMUMS．}

\section*{all growers who desire the best varieties only W．J．GODFREY＇S CATALOCUE．}

It is the MOST RELIABLE LIST published．（Ready early in December）．
Before the blooming season hardly began，Catalogues for 1896 were distributed containing long lists of Foreign Novelties，with descriptions appended，as supplied by the various raisers．Not a tenth part of these had bloomed in this country，and not one in twenty will be worth catalogaing another season．Those growers who are tempted into trying them will be sorely disappointed．

W．J．G．has on trial of this season＇s Novelties 220 varieties from Continental raisers， 76 from America and Japan，all the English introductions，and several hundred second－year seedlings of his own raising．ONLY THE VERY BEST of these will be catalogued，and no expense and trouble are being spared to sift the few＂grains from the chaff．＂Strong，healthy，country－grown outtings can be supplied at once，if desired，and at same prices as offered by other responsible firms．

CODFREY＇S NOVELTIES FOR 1896 will consist of really sterling varietiee，every one of which has
W．J．GODFREY，EXMOUTH，DEVON

\section*{WHAT HAS RECENT CHRYSANTHEMUM SHOWS PROVED？}

\title{
WHY THAT THE XL ALL LIQUID MANURE
}

\section*{Is a Great Assistance to the Prize Winner．}

Mr．W．H．LEES of Trent Park Gardens，New Barnet，was the first to take this Manure in hand．He has used it freely，and his unparalleled success，both last year and this year，at the most important shows，tells its own tale，and this oannot be too widely known amongat all lovers of Chrysanthemams．

This Manure is just as valuable to the Market Grower，who has to produce dozens of blooms upon each plant，as it is to the Exhibitor，who only leaves two or three to develop．The use of it in either case produces size，brightness of colour，and substance－thas securing for the Market Grower the top price in the market as well as giving the Exhibitor＇the premier honours at the cahibition－table．Analyais and all partioulars post－free from the Manafactarer of the XL ALL Epecialties－

\section*{G．H．RICHARDS，}

OLD SHOT TOWER WHARF LAMBETH，LONDON，S．E．

M1 Y OS OT I S ALPESTRIS，Improved， Large Strong Plants，Blue or White，2se 6 ．\({ }^{2}\) ．per 100 ； 4s．per 100．Free on Rail．Oash with Order．
P．BOULTON，Beechenle Nursery， P．BOULTON，Beechenlea Nursery，swanley．

\(\mathrm{A}^{\mathrm{s}}\)SPARAGUS，for Forcing．－Five years old， splendid roots， \(12 s, 06\) ．per 100 ；extra fine， 6 years old， 15s，per 100 ．On rail，cash with order．My Asparagus alwisi
makes top price at Covent Garden． J．J．CLARK，Market Gardener，Goldstone，Brighton．
CONIFER A，\＆c．－Abies Douglasii， \(1 \frac{1}{2}\) to 2 ft，

 Cedrus deodara， 2 ft ．， 6 s．per doz．© Cup．macrocarpa， 14 to

 1 ft ．， \(4 s\) ．per doz ； 1 Pinus cembra， 1 ft．， 128 ，per 100 ；Retino－

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IMPORTANT NOVELTY OF LAST YEAR.
PRIMULA FIMBRIATA RUBRA SUPERBISSIMA.
This grand oew Primula may b- described as the red counterp.re of P. albs magnifisa seat out geveral yeare aqo, and which was one of the moat sensational Novelties of recent times. beny The fringing of the extra large bold flowers - which are of ureat substance -is of the seme whilt charaetur as in P. alhimaniffec, and which distioguishes that variety from all gellow oye. the well colour it that of the beut ty se of the ordinary " rubra, relieved by a rich go al a and rich gree.


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lowirg wrll-growa TRFES, hevian alwat, ciean teme, With sandromel, furmuher, well-bulawceu headi, and from COEK DABYCABPUM ingling are aplendidiy roured:ACEK DABYCABPUM, 11 to 20 fet.

WIEGII Laciniatum. 10 to 14 feet.
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BCHWKDPGKII. 12 to is foet.
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BR̈E , H. Purple, Pyranide,
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BEEOE, Weaping. Py remide, and standarda, 8 to 18 feet BÍROH, Young's Weeplog, Py ramids, and Btandards is to 14 fr at.
FǐMS, Werteaf Weeplog, Pyramids, and Btandards, 10 to 18 ft, ELMS, Weoping, Pyrumide, and Standends, 7 to 11 feet. LARCH, Weeping, Pyramide, 8 to 10 feet.
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PIORA LASIOOARPA, 8 to 10 fine
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STANDARD or HACFESTANDARD TRAE and NOIEKTTES, per dozen, 24 s to \(3 / \mathrm{s}\).
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capict of G.B. \(G\) Cb Fritt LES 6 sthyy.


THE

\section*{Gardeners Clironide.}

\author{
SATURDAY, NOTEMRER 1B, 189\%.
}

\section*{TOHN EVELYN.}

THE long roll of English amatear bortioul. turists containe no more attractive a name than that of John Evelyn-or "Sylva Evelyn." Luoy Aikin desoribed him as "that model of a meritorious English gentleman." "I know no man," suyb the poet Cowley, "that possesses more private happiness than you do in your garden, and yet no man who makes his happinemn more publiok by a free oommunication of the art and knowledge of it to others. All that I am able yet to do is only to recommend to mankind the search of that felioity whioh you instrnot them how to find and to enjoy." Columns might be flled with the things whioh Evelyn's contemporaries have said about him ; but it is more partionlarly with Evelyn in connection with Sayes Court and the newly-established Deptford Park that forms part of the old eatate that we are concerned.

The manor of Sayes Court, originally known as Weat Greenwioh, has a very ancient history, which, indeed, goes baok to the time of the Conqueror. But it is not at all necensary for va to penetrate very far into the dim mists of obsoarity, and it must suffice us to point out that the name of the place dates from the early part of the twelfth centary, when, by marriage, it passed into the possession of Geoffrey de Nay, who was one of the most distinguished men of his \(t\) me. The estate remained in prasession of this family until early in the fifteenth century, when, in default of a heir male, it paseed into the possession of Sir John Phillip. After various ohanges it was, towards the close of the sixteenth oentury, in the possestion of the Browne family.
It will be iaterenting to quote the description of the place as it appeared to eye-witnesses in 1608 and in 1651 , respeotively. The surver, whioh bears the date of Jaly 25,1608 , reports at follows in Sages Court:-I his house oonterneth eightteene severall roomes and twoo ntoris high, and ngne bayes and gardens, and orohards contayning by estimacion two acres and a halfe, also a stable on the west end of the stalles and a loft or gardener of four bayes valued by the jary by the yeare (in good repaire), iiij \(1 .{ }^{.}\).

Forty-three years later, another survey-dated June 2, 1651-was made of the plucw, and from this it will be seen that it value, at all events, had conviderably increamed since 1608. The survey says:-"Manor house built with timber, with the apptenanoes thereunto belongeinge commonly oalled Sayes Court, Deptford
consisteinge of one hall, one flur, one fitchen, one battery, one larder, with a daryuhouse, slsoe one chamber and three oellorm. In je reand torie eight chambers with foure closentts, and three garretts, two stables, and one other litule stable joyninge to the aforesaid mancr howee, whioh afortiaid manor hotso, toguber with the
said garden, orchard, and court yards, ounteine together two acres, two roodes, and sixteene perches. xiiij 1.

Whilst in Paris during 1646-7, Evelyn became acquainted with the English Ambassador there, Sir Richard Browne, and on June 26, 1647, he was married to Mary, Browne's only daughter, and finally settled with his wife at Sayes Court in 1652. The Brownes held a lease from the Crown of the manor, which had been seized by the Parliamentarians. Evelyn obtained the King's leave to compound with the occupiers, the King also promising, in the event of a Restoration, to secure it to him in fee farm. He succeeded in compounding for \(£ 3,500\); he also obtained leases from the King after the Restoration.
Although Sayea Court iteelf had only a comparatively amall garden of a couple of acres attached to it, the manor itself would appear to consist of 260 acrer, according to a letter which Evelyn quotes in hia Diary, under date, October 21, 1642. The diarint began to alter and improve the place soon after he took ponsession. Under the date January 17, 1653, Evelyn has an entry in his Diary to the following effect:-"I began to set out the ovall garden at Sayes Cuurt, which was before a rude orchard, and ull the reat cne intire field of 100 acres, without any hedge, except the hither Holly hedge, joynirg to the bank of the mount walke. This was the beginning of all the succeeding garden, walke, grover, enclosares, and plantations there." The late Mr. Nathan Dewn, the anthor of a very interesting and complete little History of Deptford stater, that among the MSS. at Wotton, is the following notice of Evelyn's work at Sajen Court:-"The hithermost grove I planted abuat 1656 ; the other beyond it, 1660 ; the lower grove, 1662 ; the Holly hedge, even with the mount hedge below, 1670. I planted every hedge and tree not only in the garden, groves, \&cc., bat about all the fields and house since 1653 , except those large, old, and hollow Ems, in the stable coart, next to the newer; for it was before all one partare-field to the very gardan of the house; from which time also I repaired the rained hoase, and built the whole end of the kitchen, the chapel, the buttry, my stady above and below, cellare, and all the outhoases and walls, atill-house, orangerie, and made the gardens, \&c., to my greas cost, and better I had don to have palled all down at firat, but it was don at several times." In Sylva, 1683, Evelyn farther records:I planted all the out-limits of the garden and long walks with Holly - 400 feet in length, 9 feet high, and 5 feat in diameter."
Evelyn's residence at Sayes Court extended from 1652 to May, 169t, a period of forty-two jeara. Ho was a pronounced Royalist, but occupied himuelf vary little with pablic affairs daring the Commonwealth, and confiaed himself, in fact, to the cultivation of his garden, to writing books, and to corremponjing and associating himself with the learned men of the day.
It would require columns merely to enumerate the many celebrated men who vinited Evelyn at hit renowned retreat at Daptford. Among otherl, wo may apecially mention John Dfyden, the poet; the Marquil of Argyll, who bhortly after had the misfortune to lose his head on the scafold; Lord Lothian, Earl of Southampton (Treasarer of the Navy), the Qaeen-mother, with the Earl of St. Albany, "and many greate ladies and peraona." Abraham Cowley wrote his aix Latin booke on plants daring his residence at Daptford, and the gardens at Sayes Court are anid to have helped him greatly in this. Mr. Jasalie Stephen ataten that Evelyn was on friendly terms with John Wilkins, the warden of Wadham College, and afterwarda Biahoo of Cheater ; and with Robert Boyle, to whom in 1659, he addrensed a letter proposing a weheme for bailding a sort of college near London, where a few men of acience were to devote themuelven to the promotion of experimental knowledge. The outcome
of this proposal was the Royal Societr, the firat meeting of which was held in January, 1660-1. Both Charles II, and James II, showed Evelyn much favour, which perbaps was a questionable sort of a compliment; Evelyn had no sympathy with the profigacy of the court of the former, and atill less, if possible, with the rarcalitien of the latter. His attention and time became more and more devoted to scientific and other subjects apart from politics ; and when the Ryvolation came, he retired entirely into private life.
The decadence of Siyes Court dates from the time when Evelyn left it to settle with his brother George at Wotton in 1694. While he was in residenceat Sayes Court, Evelyn was constantly receiving distinguished visitors, as readers of the celebrated Diary are well a ware. On April 30, 1663, Charlen II. came "to honour my poor villa with his presence, viewing the gardens, and every room of the houne, and was pleased to take a amall refreshment. There were with him the Dake of Richmond, the Earl of St. Albana, Lord Lauderdale, and several persons of quality." Two vears later, another distinguished diarist, Samuel Pepys visited Sayes Court, as the following entry in his Diary hhows:-"1665, May 5. After dinner, to Mr. Evelyn's ; he being abroad, we walked in his garden, and a lovely noble ground he hath indeed. And among other varieties, a hive of beer, so as, being hived in glass, you may see the been making their honey and combs mighty pleakantly." Pepys' Diary contains frequent mention of Evelyn. An exceedingly fine series of anpublished letters from John Erelyn to Samuel Pepya wan in the ponsension of Mr. S. J. Davey, of Great Rassell Street, five years ago. Oae of these contains a very quaint request that Mra. Pepys should call in "Plantear de choux herbam parietaream Sr. Roger L'Estrangeanything but Sc. P Plitick." Another of these unpablished lettera, dated 1668, has reference to America; in it he mentiona a captain whom he had the pleaanre of meeting when he last dined with Mr. Pupye, and nuggests that, as this gentleman is abjut to take command of some forces in Now Eagland, he woald do him a favour if he would collect for him some of the vegetables and natural productions growing in that country. He oncloses a list of the pames of the plants he requires, and also those growing in Virginia, and of which he is aoxious that Captain Nicholson shoult obtain some seeds.
The Great Frost of 1683-4 dealt very hardly by Mr. Evelyn's aylvan retreat. In his Diary, under date of February 4. 1684, he writes:-"I went to Sayes Court to eee how the frost had dealt with my garden, where I found many of the greener and rare planta utterly deatroied. The Ocanges and Mirtilis very sick, the Rosemary and Lanells dead to all appearance, bat the Cypress likely to induce it."
The thinge which the Great Frost did not deatroy were eventaglly exterminated by Admiral Bonbow and Peter "the Great." "I went to Deptford," witen Evelyn, on Jane 1, 1696," to diapose of our goods, in order to letting the house for three years to Vice-Admiral Banbow, with condition to leep up the garden." How far the last clause in the agreement was kept up, the following lines will show:"I have let my house to Captain Banbow, and have the mortification of aeeing, every day, much of my former labour and expense there imoairing for want of a more polite tenant." Ia 1698, the final blow was given to the bearties of Sayer Court. The Czar of Rasaia, Peter the Great, "being come to Eagland, and having a mind to the bailding of nips, hir'd my house at Sayen Court, and made it his Coart and Palace, new farninh'd for him by the king." One of the Czar's pleasant pastimes, it appears, was trundling of a wheelbarrow through Evelyn's favourite Holly-hedge, to which reference has already been made. "Is there," asks Evelyn, under the heavens a more glorious and refreshing object of the kind than an impragable hedge of almost 400 feet in length, 9 feet high, and 5 feet in diameter, which I can atill show in my rained garden at Sayen Court (thanky to the Tzar of Muacovy), at any time of the year, glittering with ite armed snd variegated leaves, the taller atandards at ordinary
diatance, bluehing with their natural coral It mocks the rudest assanalts of the weather, beath, or hedge-breakera-et illum nemo impure lacesit.!
The damage inflicted on the place by this preciou pair of tenants was appraised by a committee con prised of Sir Christopher Wren, Mr. Sewell, add George London, the king's gardener, at \(£ 350 \%_{\mathrm{o}}\), of which amount \(£ 55\) was in respect of the garden, London reported that the "aeveral diworders" here came under two heads, "one is what can be repitred again, and the other what cannot be repaired. London reported that (1) all the grass work is out ol order, and "broke into holes by their [the Ravina Court] leaping and shewing trick apon it;" (2) the bowling-green is in the same condition; ; (3), all the ground which used to be culcivated for "eutibo" plants is all overgrown with weede, and it at manared nor caltivated, "by reason the Zuy (icic) woald not anfer any men to work when the newon offered ; (4), the wall frait and "stander" frit theen are "unprained" and unnailed; (5), the hedgan or wilderness are not cat as they ought to bo; and finally (6), the gravel walks are all "broke" into holes and out of order.
If this succession of calamities were inanficieat to drive away the gentle Evelyn, he would have been more than hnman. He removed the remsinder of his goods to Wotton on May 24, 1700, and Sayen Court has never nince been inhabited by any meabor of the family. The subsequent history is soon told, and its viciasitudes might almost employ the pen of an elegiac poet. In 1759, the house wat let to the veatry of St. Nicholap, Daptford, to be uned as a workhouse. In 1820 the old bailding was in gras part demolithed, bat tha workhonse remained on the site till 1848. Is 1881 all that marvived of Saju Court was converted by its owner, Mr. W.J. Eraln, into the almshouses, for the accommodation of old renidents on the Evelyn eatate. In 1886, Mr. Evelja gave part of the old grounds to form a pabie garda, with an enduwment for keeping it in order; and in August latt, the remainder of the grounda was adided to this pablic garden, after bsiag tattefally laid ots from the design of \(\mathbf{M} \%\). H. E. Milner, the well-kwow landscape gardener.
Of the gardens, therefore, which once formed tho glory of Sijes Cuart, and the pride of John Eielsh, only 7 acres have entirely encaped the bailder. Bus the inhabitants of Daptford may conader there selvea exceedingly fortanate in possensing thio \(m\). desirable breathing-place in tha heart of this denenty popalated neighbourhood. That it is being appro ciated is demonstrated by the fact that in a fot nizht from the day of its informal opening (Augut in, 1895), nearly 8,400 people pasaed through its pater Mr. Evelyn has had it laid oat entirely at bio on cost. At present a conaiderable variety of trees and shrubs is Hourishing is the gardens, nearly all of them being decidaous, as the smoke and dirt of the place would acarcely permit of anything in the then of evergreen shrobs or treen flouriohing there Several varieties of Barberiv, notably squifolien Aucaban, Luarelf, Bux, two varieties of Cotoneantion Pgras Maluz, Craypgus, Lilac, Privet, Weigetan Mouatain Asb, and Yailadelphas coronarias, all flourish here in a highly aatiofactory manner. gardens are under the charge of Mr. Callaghain who has been in Mf. Evelyn's employ for some "spers. The place presente much of the "unclothed "sppetr" ance of a newly-laid out park; but in the coarte the next five or ten yeara it will partake somental of the character it possessed two centaries and mure ago-it will be "most bocarenque," as one of \(\mathbb{E n}^{\prime}\) Evelya's visitora than described it. The en
Puplar, and Pane trees have all been growing bere Puplar, and Pane trees have all been growing bell Mr. Tanalkfull Stardee's photographs ( \(\mathrm{i} 3.98, \mathrm{p} .577\) fig. 99, p. 579 ; and ig. 100, p. 531 ) give perhapp \({ }^{1}\) more "bocaresque" appearance than it renlily \(p\). eesses, but beyond this they are faithful to nsture.
Apart from this alice of an entate which mand slwaya remain famous in the annals of the math horticalture, and a reminder of one of the the aeventeenth centary, it may be pointed out that the

London County Conncil purchased, in 1894, of Mr. W. J. Evelyn, a space consiating of aeventeen acres : this epace is almost half-a-mile west of Sayes Court, adjoining the Grand Sarrey Canal. The price paid for it was \(£ 36,000\), and the place is now rapidly being formed into a pablic park. But this piece of ground formed no portion of the gardens in which John Evelyn so delighted, alchough it bas boen the property of the Evelyn famlly since they acquired the estate. W. Roberts.

\author{
( 70 be concluded.)
}

\section*{New or Noteworthy Plants.}
 This is a very singular-looking plant. The bright green leave have petiole of about the ame length. The flower-atalk bear on their aummit a very large
excepting this very aperficial affinity, all the main charactera are an different an posible. Not evon the petals and the lip are aimilar, though thoe parte never ahow auch a variation at the male The Royal Garden at Berlin flowered the plant in Auguat of this year. Abont the home of the plant I am not quite sure, and I believe it is better to confeas my ignorance on a point I am not responsible for, than to pablish doubtful suppositions. F. Kränz’in.

\section*{KEW NOTES.}

Guatavia pterocarpa. - This is one of the handsomest of the dosen apecies of Guttavia, enus of tropical American Myrtacea, remarkable for ite large alonay leaver and handsome flowers, sometimes 6 inches across, and not unlike the Magnolias. \(G\). pterocarpa was introdaced about thirty yeara ago, and distribated ander the garden name of \(Q\).


Fig. 98.-view in the melelfe page at deptford. (bee po b76)
sheathing bract, which inclades the banal half of the calyx. The dorsal nepal is very short, the lateral ones are united except at the very top, and exceed the doreal by twict ite length, or even more; all are contracted into filiform tails of 2 to 35 cm . in length. The coloar of the principal part of the flower in a rich orange-yellow, more jellow at the baae, more orange, or even brick.red, at the top. The mouth of the calyx is comparatively narrow.

The very large braet is like that of M. eucullata, Lind., and perhapa the plant may be here and there confounded with this apecies-the "Widow-flower" (La vidua) of the natives of New Granada, but

\footnotetext{
*Masdevallia calyptrata, Krzl. n.. sp.-Toliis lanceolatis apice obtusatis in petiolum æequilongum anguatatis; scapis unifloris folia sequantibus v. brevioribus ; bractea maxima ovarium et basin cyathi suppa dimidium amplectente carinata acuta; cyatho 2 cm . longo compresso antice subclauso, labio superiorev. parte libera sepali dorsalis triangula brevi in caudam filiformem 3.5 cm . longam protracto, labio inferiore ( v, sep. lat.) multo longiore; sepalis apice tantum liberisibi triangulis et in caudas 3 cm . longas protractis, toto, cyatho aurantiaco v . et in caudas 3 cm . longas protractis, toto, cyatho dense purpureo-suffuso ; petalis longe rhombeis apice luteo et dense purpureo-suffuso; petalis longe rhombeis apice
oblique resectis erowulis transsectis triangulis: labsllo sulboblique resectis erosulis transectis triangulis; labello sul-
rhomteo, antioe obtuse acutato incrassato; gynos emio sequiPhoms eo, antioe obtuse acutato incrasesto; gynos emio sequi-
longo, markine audrccinii profundo integro. F. Krünzlin.
}

Leopoldi. A plant of it has long been in the Palmhoase at Kem, where it flowers annually, and is in flower now. It is shrab 6 feet high, with a atraight, woody stem, branched above, and clothed with oblanceolate leaves 18 inches long by 6 inches In width. The flowers are borne in terminal clusters, a dozen in each clanter, and they expand in alow naccesaion. They are in the form of a shallow cap 4 inches in diameter, composed of four fienhy, ovate-concave petals, white, tinted with rome, and a c snapicaons corona-like ring of vellow atament. They are deliciously fragranto G. gracillima, a apseie with linear leaves and roso-tinted flowers, wat in flower in the ame house a few week ago.

\section*{Anona Chermolia,}

A plant 4 feet high, grown in a pot, has this year ripened neveral fraits in the Palm-house at Kew. They are about the aize of an ordinary Apricot, dark-brown in colour, their pulp being yellow, and delicions both in aroma and taste. Hat any one ever tried to grow this fruit in Eaglish fruit-houses? If it could be grown as Penches, for inatance, are grown, and would frait freely, it could acarcely fail to become populap. It is largely cultivated in
tropical countries, the Creolea counting it the mont daliciou of all fraite, and they ought to be jadgen.

\section*{Dioryyeos Kay.}

Ripe fraite of this, the Chinese Date Plam, may now be seen on two plants in the succulent-house at Kew. They are as large an good-sized Oranges, and of a rich ecarlet colour. The condition of this houve seem to suit these plancs, which have fraited annually aince they were planted in the border among the Agaven, where they get plenty of air and annshine.

\section*{Lyoonis auma.}

The handsomest bulbous plant in flower at Kew in November is this Lycoris, of which there are about a dosen potes, each bearing tbree opikes of flower in the Begonia-honve now (ace fig. M4, p. 645). The flowers may be likened to those of Nerines, bat they are three or four times as large en the larget Nerine, their colour being rich goldenyellow. At Kew the plante are grown in an intermediate-hoase all the winter and apring, and when they show an inclination to go to reat, they are stood outaide in full sanshine, where they get whatever rain falla. In October they are removed into the house again, and a few are placed in a atove to induce them to flower early. Thus treated there have been flowers of thi plant on exhibition in the houces for the past month or more. I am convinced now that thi beautiful Chanese plant, which, by the way, was introduced into tiagland over a bundred yeare ago, remaine ankoon to most caltivatore, only because the fow who have attempted ite caltivation have failed through not giving it afficieat hoat. In a tropical climate like that of Hong-Kong it is a popular garjen plat, growing with the amo treedom as Daffudile do here. W.W, Kew.

\section*{Orohid Nutes and Gleanings.}

ODONTOBROSSUM MACULATUM.
With reference to the remark ander Odontoglossum crispuan Devoniense, at po 503 of the Gardenars' Chronicle for 26 th altimo, 1 beg perminaion to say that I have at present in bloom plant of Odontoglonsum macatatam bearing three fine fowerapites out of one bulb, \(t\) won beigk on the apex, and one on the side. C. Bo, The Aoacias, Worthing.

Onchids at The Dele, Eonam。
With the older plants of this grand collection of Orchid in unabated vigour, and the inclusion of every worthy new plant, either specie or hybrid, it is not surprising that Baron Sir H. Schroder, at The 1) all, Egham, attracts the gardener and the botanist from all parts of the world.

In the large commodiou plant-houser a nuccention of floral diaplay is to be found, the component parte of which vary with the eeasons. Eiurly in the year we recall the aplendour of the gronp of Mandevallise and Odontoglowame, whowe united moneyvalue would represent a moderate fortune; then, a charming diaplay of Cologgne crishata, unally net up with Maidenhair Ferna, the two moat attractive specimens noted being a Cologyne cristata alba, wome 5 feet acrous, and bearing upward of 600 flowers; and a atill larger Chateworth variety of Cuelogyne, with about 1000 blooms. And \(s\) on in anccestion, each clans of plant represented in auch beaaty and completeness an to leave a atrong impreanion on the mind of the beholder.

At the present time it is needless to eay that the main thow is made up of those two admirable plante, the autumn-flowering Cattleya labiata, and the varietien of Dendrobium Phalsenoptia Schroderianum, which everyone regards an being among the bet introductions to gardens ever made. of the Cattleya labiats, one of the new hoases is filled with their glowing warm row and crimson flowers, acarcely two of which, it may be remarked, are exactly alike. Among them is a very beautifal albino, C. labiata Counten Fitzwilliam, with Gowern of anowy whitenear, with a chrome-yellow base to the labellum, the diac of which is pale pink or blowhwhite. If the same house are some plants of The

Dell hybrid Cattleya \(\times\) Baroness Schroder (Trianæi \(\times\) Jongheana) in bloom and bud. This crose-bred plant has charming rose-pink flowers, with a yellow and white tabe to the lip, and is the most lasting of late-flowering hybrid Cattleyas. A atrong plant was noted of another fine thing raised at The Dell, viz, Lalia \(\times\) vitellina, whose fine Indian yellow flowers are very attractive, and has flowers in sheath.
The adjoining house is a moist, warm one, which has been arranged in every way likely to make it saitable for the culture of Phalrnopsis, and in it these plants at the present time seem to be quite at home, promising a good show of flower at the proper seanon. At present, thone in bloom are Phalænopais Lowii and P. violacea. Phaias tuber culosus also grows and blooms in a most satisfactory manner in a alady corner of this house; and plauts of Miltonia Roezlii and others requiring similar temperature and atmospheric conditions, seem to be suited in this house.
In the next range of three span-roofed houses, in the firts of which is a fine batch of the bronzy-leaved Begonis Gloire de Sceaux ; in the second, suspended over groups of colonred Crotons and other foliage plants, is a most charming display of the elegant sprays of Dendrobium Phałænopsis Schroderianum, D: superbient, and others of its class; and in the third, the centre stage of which is filled with the collection of varieties of Lalia anceps well-furnished with flower-spikes, is a grand group of Dendrobium formosum giganteam laden with its large white and yellow flowers.
Passing through the lofty Camellia-house we find evidence of an important condition of success in Orchid cultare, viz., to grow the plants well in the season of growth and rest them afterwards, in the great number of deciduous Dendrobiume suapended in the cool dry air of thit house. Each one made aplendid growth in the warmer houses, and here they are placed to become well ripened, and in consequence fitted for flowering. In this house in full sunlight Leelia majalis thrives and flowers freely.

In the large Odontoglonsum-house, the vigour so often noted in the apecimens, many of which are unique, is unabated, and the plants are well farniahed with stoat spikes. Among other things in flower are the beantiful orange-lipped Oacidium Lozense, with a fine branched spike of striking large flowers; Oncidium saperbiens, with white, purple, and brown flowers ; and varions others of the class which bere grow to a great aize, one plant of Oncidium macranthum having had nearly 180 flowers ; and Odontoglonsum Edwardi, gigantic branched apikes of its violet coloured blooms.
In the warm tank-house, about the centre of which the Pitcher-plants are uapended, is another charming display of Dindrobiam Pharænopuis Schroderianum, with the pare white D. Dearii, the fragrant white Angrecum Leonis, and a few other apecies. On one side the plants of Vanda teres produce every summer a great show of bloom. Here a pecaliarity in the nearly white V.t. Aurora, which in now in flower and in bads of varions stages of matarity, in noted, viz, that it is almost perpetualfowering, for an fast as a leaf or two in made, an inflorescence appearn. On the other side is a group of finely-grown Habenaria Suzannæ, nome of the beat spiken having each five of their beantifal and singular flowers; almo H , carnea and H , nivoma, all of which are well under management in this honse, which seems to suit them admirably.
Next we pass to the Cypripediam-hoases, in which there is a never-failing show. The varieties of C . insigne are coming on, and soon three lowera will be expanded on the clear yellow C. insigne Sandere, which is firat favourite. There is also a good thow of C. Spicerianum; varieties of \(\mathrm{C} . \times\) Leeanam, C . Charlesworthii, C. \(\times\) conanthum superbum, still the bent of ite clans; \(\mathrm{C} . \times\) marmorophyllum, C. \(\times\) Chas. Canham, the riehly apotted C. \(\times\) Southgatei, C. \(\times\) Antigone, C. \(\times\) Niobe, C. \(\times\) Galatea, and a number of othera, and the rare C. Stonei platytreninm, and other cherished tresaares are increaning stendily in nize and strength. Arranged on one side of the
P. Wallichiana, and P. lagenaria, literally covered with flower*.
In the large stove-house, the centre of which is thinly arranged with gigantic Anthurium Veitchii, A. Warocqueanum, and A. Andreanum, furnished with fine scarlet apathes, is a splendid collection of Calanthes, some of which are coming into bloom, while all are furnished with stout spikes. The best of thene, without doubt, is that gigantic and richlycoloured hybrid, C. \(\times\) Baron Schroder, raised at The Dell, and which it seems difficult to surpass in beauty. It is a marked instance of the benefit to be derived by asing only the very best varieties in raising crosseg. Here are the violet-flowered Utricularias from Roraima suspended from the roof, and the lighter blae U. Eadresii, all of which give such a profution of bloom in their season; the pretty Pachystoma Thompsoni, Oncidium papilio, O. bæmatochilum, Ceelogyne Massangeana, C. speciosa, Cyc noches chlorochilon, and with some beautiful selected plants of Dendrobium Phalænopsis Schroderianum, the pare white D. Phalænopsis virginale, which has no other colour than a faint blush on the lip.
In the large Cattleya-house, the Baron, fall as ever of interest in his Orchids, pointed out come of the old inhabitants of the house whose long-continued good health he attributed to growing them well, but not overdoing thema coarse which, as he says, must either result in ascrifice of flowers or collapae of the plant after a time. Among the were the first plant of Cattleys Bowringiana ever purchased, and which is now a fine healthy mass with five grand spikes; the original plants of Lexio-Cattleya \(\times\) Dominisna and its variety ronea (C. Dumiana \(\times\) L. purpurata) first flowered in 1878, and which are now among the noblest of hybrid Orchids; one of the earliest plants of L.-C. \(\times\) exoniensis and various other which are regarded by the Baron and hir gardener, Mr. Ballantine, as old acquaintances. The house is bright with flowers of Cattleyas, Lexlia Perrini, Laelio-Cattleya \(\times\) Cassiope, L. \({ }^{-}\)C. porphyrostele, L..C. \(\times\) Eaterpe, and other hybrids, and smong plants of special interest noted were the Lamberburat bybrid Cattleya (intermedia \(\times\) citrina) and Lalio-Cattleya \(\times\) Digbyana Mossix, recently figured in the Gardeners' Chronicle.
Passing to the lofty rockery-house, clad with Ferni, \&ce., we come to the lean-to range of cool intermediate-honses, in the first of which the planta of Miltonia vexillaria are grown; we find in the second divition nome of the rarer Odontoglonsums in flower. Of these the most beautifal were the violet-spotted O. Peacatorei Schroderianam, of which there were three fine, branched spikes; \(0 . \times\) Wilckeanum Godefroy \(\mathfrak{x}\), a grand sellow flower, deniely apotted with rich brown, and which we always think is no Wilckeanum, for its form differa, its flowere are more flatly displayed, and more beautifal than those of Wilckeanum is ; the very pretty 0 . Wattianam, O. Sanderianam, O. Bictonense album, O. cirroanm, and just paseed a grand O. crispum, which has borne thirty-two noble flowers on its apike. Then follow the hoase of Masdevallias ; a house of noble specimens of Coelogyne cristata and C. c. alba, with a row of finely-flowered Lxelia prertans, and one apecimen of the superb L. p. alba with pare white flowers marked with purple on the lip. Beyond are the houne of Vanda tricolor and V. anavie in aplendid condition, with Vanda Kimballiana and V. coeralea, Cyperorchis eleganv, and Cgmbidinm giganteum, making a good show. Then we enter the mall house set apart for Lycaste Skinneri, followed by a house in which are a number of Oncidiums in flower, and some plante of Dendrobiam cruentum; and then a long lean-to house filled with foliage Begonias on the stage, and numerous specimens of species of Dendrobiam hanging from the roof,
In the next range in which Fittonias, \&cc., are planted where possible are the collections of Aërides, Saccolabiuma, and warm-house Vandas, among which nome excellent examples of \(V\). Sanderiana were in bloom. Here, too, is evidence that carious botanical plante are not alighted, for among a collection of
such plants in bloom were Catasetam Christyune C. saccatum, C. Gnomus, and several apecimens of C. param, Gzleandra Baueri, and other prethy apecien. As in other collections, dificulte mabjetety are often encountered at The Dall, bat with neth the Baron and his gardener, Mr. Ballantine, have an unfailing method, and that is, to "atick to them" until they are made happy.

\section*{ADHATODA CYDONIEFOLIA,}

How seldom at the present day is this old dorsclimber seen in collections! it having been albowed out by the numerous foliage plants with which our modern stoves are more or less filled, of comme, these latter are valuable additions to wellyrom collections of planta. Still, where there is a fisd spare room, I think no plant-lover world mom adding to his collection the one named abon. Itit best seen to advantage when grown as a pilar. plant, though where this position is not arsilable, it can be trained up the roof of any ordinary plantstove. Dar plant is in mach a position, being afineed to three longitudinal wires up the roof under a ralter, juet as Vines were trained to in old-fabhioned vineries. It is planted in a brick encloure ander the hotwater-pipes that run beneath the sideatage. It is best to raise this enclosure, say a coople of bricks in depth, above the surrounding aurface, to prevent the soil therein from becoming sodden. The mixture of soil we use is two parts aandy loam, to one part turfy peat, with some broken clinkera aded to keep the ail sweet. Good drainage was put in the base, covering this with a thin turf, to prevest it from becoming clogged. After the enclonare is fall of roots, weat doses of manare-water are afforded daring the sammar monthe, at which time the plant is in fall growth. Its period of flowering is daring the month of Ostober and Nivember. The droop. ing apray covered the whole length with dark green opponite, ovate leaven, from the base of which spring small clastars of purple and white Jasticia-likg foowers, have a very pretty eff set. Uafortanataly, they are but whort-lived when ued for indoor decoration, though wa have occasionally used them for laying on the cloth along with nuitable folitys in decorating the dinner-table, Ualike purple flowers generally, the pecaliar ahads of this Adhatoda comsa out vary well under artificial light. When the flowering period is past, may in Jsnaary, we cas our plant back to the main atems, keeping the roost on the dry side for a few weeka as the asme time. Whan it begins to grow again in March we water as before. So far as I know, the plant in quastion is not anbject to serioun attacks by any of the many ineect pests that too frequentiy infest stove-plants in general. We have tried it as a babket-plant, brif have not succeeded so well as we could wish. \(H\) J. 0

\section*{POTATOS.}

I mpon regretted being compelled to leave the Drill Hall at the clone of M \(\%\) A. H. Satton's man intereating and well illustrated lecture on Potatoon which he delivered on the 29 :h ult. True, very much that he said, off red no room for criticim, and but little suggested discuasion. Juat ons or the points, howevar, marited notice, and conld I have remained, I should have referred to them then First, in mentioning the need for removing the atrmans from flowers before attempting crovr fertilization, Mr. Satton laid down what is held \(\omega\) be an essential axiom in relation to all selfferertilising flowers that is indispatable; but I have found the garden Potato to be an exception, and I uee ths term to differentiate it from the varions apecies the which Mr. Satton made peecial reference. Tm great characterintic of the flowers of garder and field Potatos is their pollen-barrennesy, which wis it not be absolute, but is comparative. Si nearily absolate, however, that not more than one varien former, hence they all drop, and there is no weed-prodnction No doubt that fasture is dua to the exhanatiat
arising from the great production of tuber the plant now exhibit. Seeing that in Potaton the processes have to run coterminous, and are not found in diverse seasons as is the case with so many other thingo, the reault is not remarkable. Thus it is that Potato-flowers, when pollen can be obtained from any source (and jaut a few varieties do have plenty of pollen), may be ferlised freely without interfering with the atamens, unless it be thone few varieties that do produce pollen freely, and it is rare indeed that these are emploged for seed-production. They may, and have made, excellent pollen parents. Certainly pollen sufficient to produce fertilisation of one or two flowera may be obtained by perveverance from many apparently-barren blooms, as I have frequently found; but never in any care hat any individual flower of these varieties prodaced fruit by self-fertiliastion. It is a carious aspect of flosencence neen in hage areas of lotatos in fall bloom one week, and the next not only not a flower is to be found, but not even a berry-
on what has been proved to be the moat dimenentricken soil in Sarrey. I do eincerely hope it will be teated also at Chiswick on the Putato trials henceforth, for it is most distressing to see apparently fine cropping varieties tarned out rotten with disease. Bat there can be no doubt whatever that a benefit resaltant from dreaing even diseaseresisting varietie of Potatos with the Bordeaux Mixtare arise from the longer preservation of the foliage, thus helping, as only through the agency of leafage can it be helped, to develop greater atarch production in the tubers, though no material addition may be made to the balk of the crop. There can be no doubt whatever but that atarch is more fally developed in the tubert after they havo reached their maximum aize, and the proces of ripening is proceeding, than at any previous period in their growth. Thas the retention of leafage for bat three weeks longer on the plant becomes, for this purpose, a matter of vital importance. That there is so much complaint every year an to the absence of


Fig 99.-virw in the eyelyn pabk at deptrord. (bee p. 576 )
rcthing but the bare atem to show where the flowers have been.
The angegtion of the lecturer that with mo many fine comparatively disease-resisting Potatos in cultivation, even in most adverve season, it does not pay to apply dressing of the Bordeaux Mixture generally to them, is quite true. That is epecially so in relation to field culture. I conducted trials of all the bent early and late varieties of Potato in commerce daring the past ummer, in Surrey, on numerous plots and diverse soils. In the majority of caver disease gave about 3 per cent. of injured tabers only, but there were two cases, both on the light poroue and evidently over-charged nitrogenoas soil of the allotment-ground at Richmond, where the disease played havoc with all aorts, early and late, disease revisting and otherwise; none were unbarmed, and the bulk to the extent of two-thirds, at least, very bad. The soil is mo much like that at Chillwick, where also diseave way apparent, that it is evident there are condition under which it would pay well to employ the Bordeanx Mixture freely; and if I have to mperintend any Potato trial at Richmond next year, I trust it will be volely for the purpose of testing this liquid compound,
quality in Potatos, is largely due to the fact that the foliage is deatrojed by the diseave ere it can complete it proper work of maturing, there can be no doubs.
This matter naturally lead on to the convideration of another, reapecting which a long paper might be written as to the connection between colour of Potato fleeh and flavour. Mr. Satton refersed to the diverse varieties of Potato grown on the Continent, not ouly for food, bat alvo for furnishing atarch and sugar to be converted into alcohol. Comparing them with ours, the continental Potatos have gellow flewh, we prefer white flenh tubere, and grow tho almont exclunively. We here how that same stupidity which characterisen the nation in it preference for liabby white boneless bread over that of wholemeal, which is coarner in texture, but more healthful. Is is a fact, I think, indiaputable, that yellow flouh and flavour, if there be too abundant starch, are allied. The white flenh tubers give timealinens or flourinen when they are matured, but they lack both wharch, which in the chief flenh-forming principle, and flavour-why this odd antipathy to jellow flesh? Cariously snough everybody like and extol the A shleaf Kidney, which
has in it a considerable body of yellow Bewh, both for it nutty quality and favoar. Who does not remember the old Victoris, so good, one of the beat flavoured of Potatos, with its (when well cooked) yellow body conted with whitish flour-like crystallised sugar. Hive we to-day it equal, or that of the Asbleaf, for Gavour! Mr. Bobert Fenn, when be raised his old early market Rector of Woodutock, Woodntock Kidney, gave un delicious flavoar, but eo soon as be utilised the white with Americans an parents of cronses to secure size, he found flavoar to decrease. It is the amme with all our varieties. The very beat favoured Potato I have raised. The Dean and Renown, were out of Woodatock Kidney, and they have good davour, su also bat Reading Ruanet, which in so exeellent when fally matered and cooked well, but these all have yellow bases. Wo have cot varietie that produce crope well an nize in tabert. that satinfy all needs-indeed, to-day Potato are cheap almont beyoad all precedent. We can now affurd to derote more attention to starch and favour production, but if we will have these elements we mut have yollow fleah also.

I finally aggent to chemints whenever they analyse Potatos they do so in a cooked atate, as we partake of them an a food, and not raw. What are the changes cooking bringe about I cannot asy, bat they ard considerable. Still further, perhapa, they will tell ut what ingredienta we can apply to toils that shall give us starch and flavoar, where now it is lacking. \(A, D\).

\section*{THE SHOW TULIP.}

I thase lit ponible"the garden ahow Tulip mas once more grace/the tables of our exhibitions in large numbers, for Mr. P. Burr seems to have set his heart on the revival of this once immenselypopular flower; and we all lnow, that ahould he really be in earneat in the matter, that it will aoon be an accomplished fact. Such I glean ia his intention from a letter received from him som, little time eince. For severnl years I ased to act an ceneor to the Vale of Evesham Fioricultural Sjciety, which held ite \(m\) onthly meetinge in the Tuwn Hall. Thie was, atricsty apeaking, a society of the old school of ff oriste who studied the properties of flowers to the very letter, and who never could balieve their owa ejes; for every flower had to be examined through a pair of apectaclen before they could trust it to be ataged. However, I admit gaiaing many "wrinkles" from some of the members of the old echool, and passed many a convivial hour in their mociety. The members held four thows anauilly, at times enitable for their favourite linde of floriats' llowers. I regret to esy, that since I left the neighbourhood, now nome yeari ago, most of the principal member of thi old achool have departed thil life, and the riaing generation seem to be lacking in energy in upholding wach shows at were the pride of their fathers; and this particular society, like so many others, is now numbared with the thinge of the patt. Should Mr. Barr take the Tulip in hand, his own extensive bulb ground at Thamen Ditton would be very auitable for their culture, sad a grand display might be given annually there, which woald no doubt, ss of yore, draw florist from all part of the United Kingdom. Now, we do not expect people to get eo excited in theme days ovar the Talif at to go mad, as was evidently the case when the calture of the Tulip wat at ite highest, about 1636. We do not expect to hear of the gambling apecklations that were once carried on during the Talipomania; the bulbs were than sold by weight in perita or grains, and some brought prices which would heve purchased a small entate. A variety called Semper Augustus, I have read, was sold for 2000 florins, and it once happened that there were oaly two roots of it to be had, one at \(\Lambda\) msterdam, the other at Hearlem. For a bulb of this variety one person agreed to give 4000 florins, together with a new carriage, two grey horser, and a complete set 0 ! harness ; and another agreed to give 12 acres of land for a bulb; and in one inatance Talip brought a profit of more
than 60,000 florins to a dealer in four monthe. Noblemen have been known to give weep 2000 forins for Talip-bulbs ; and we are told that in one town in Holland in three years more than \(10,000,000\) florins were expended in this trade. In another instance, a person who possessed a yearly income of £2800 wan redaced to begging in the whort space of four monthe by purchasing flowers and bulbs. It is also anid that a pernon who possenied a very fline Tulip, Learing that there was a second root of the ame kind at Haarlem, repaired thither; and after parchasing it at an enormous price, placed it on a flagatone, and pounded it to pulp with his feet, exclaiming with exaltation, "Now my Talip is anique!" Now, of course, we do not, in these hard and enlightened times, expecs any such folly, or high trade prices to rule; we thall not have maid-mervanta, footmen, wweep:, \&rc., apeculating at of yore; but high price may again come to the fore. The difficulty seemn now to be, in getting a first-clans collection together. The last bede of valuable Tulips I anw were at Mr. Groom's, Clapham Rine, about the year 1852. He had at that time one bed, 130 feet long, containing the cream of his col-lection- 1700 balbs, and altogether 200,000 in and out of flower, and the prices he alked were exceedingly high, ranging from 100 guineas downwards. Mr, Middlecot, of the Greyhound Inn, Dalwich, also had a fine amateur collection, which he used to cover with an awniag during the flowering season; but they are also thinge of the past, and we must look to the northern floriste for help in forming a collection, and if these would only advertise their bulbs, they would, I believe, find a ready ale for them.

Raining Tulip: from seed is a very alow procens, the bulbe taking from five to aeven years before they flower, and neveral yearn longer before they break into their proper colours. It in bent to now the meeds in pans or boxes; cover the seed with about a halfinch layer of leaf-mould and loam; keep them from hoavy rains, but not to let the noil get very dry. Wait with patience for the reedlinge to flower, then eelect ach flower as you think most eligible in reapect to shape, colour, \&c. They must be handsomely capped, with clean bottoms, theme being inciapensable in a good flower, whether roses, bizarrem, or byblomens ; elect from these those that nearly approach Glenny's properties of a good Tulip. Edw. Bemnett, Lyne, Cherisey.

\section*{ABOUT CHRYSANTHEMUMS.}

\section*{(Continued from p. 548.)}

DEVONHURST, CHISWICK
A good collection of Cbryanthemums may be aeen in the garden of E. H. Watta, Esq., and when the plante are in flower it is thrown open to the inspection of the reaident of the district at a small charge, the aum thus obtained going to some charity. This mason it is the London City Misaion that will benefit.

The Chrymanthemum plants are arranged in semicirclen, and murrounded an they are with foliage plants, a very pleasing effect is produced in the greenhousen. Mr. J. Gibson, the gardener, is a believer in amall shifte when repotting the plants and in firm potting at all times. The aize of pots omployed in montly 8 inch. The plante are very dwarf in atatare, and the bloom bade are reduced to three on a plant ; the catting-back syatem is not practised here. Liquid from the cow-shed in the only manare applied to the planta, and that very aparingly. The plante were clothed with clean healthy foliage, and produced just the kind of wood from which first-class flowerm are obtsined.
Many good varietien were noted, viz., M. P. Martignac, incurved, good golden-yellow, in the way of Jardin dee Planten; the rony-bluah Princene of Walen was in fine form; Baron Hirnch, orangecianamon, good shape, full bloom, and early In coming into flower; Emprens of India wan in capital condition; sloo C. H. Curtie, an incurved flower of pure yellow. One of the finest of recent introduetions in Commandant Blussett, Japanene, magnificent purple-amaranth
flower, dwarf habit; Dachens of Wellington, clear yellow, with long narrow florets; Mons. Panckoucke is another bright pare yellow, not quite mo rich in colour as Thunberg, but in other respects auperior to it, having Sanflower and Phoobas an good companion: Colonel W. B. Smith, golden bronze, shaded terra-cotta, very fine.
One of the very finest, Viviand Morel, rony-pink, is pare white on an early bud; International, pale yellow-tinted roy-lilac, fine preading flowers. No collection seems to be complete without Charles Davis, a golden port from Viviand Morel, beartifally tinted bronzy-rose; Colonel Chase, pale blush, long drooping floret ; Niveum is a light pink, changing to pure white, a good exhibition flower, and one that should also be an acquisition for market purposen, othera were William Seward, Kentich Yellow, Dachent of York, Julen Forry (seedling from Louise Bchmer), Gairlande, M. Grayer, Mri. W. H. Lees, Madame Carnot, Philadelphia, King of Chryanthemums, M. Paul Lacroix, Robert Owen, and Mre. E. G. Whittle. J. B.

Mrssrs. Prarson \& Sons, Chilwhll Nursbries.
These well-known nurserien, sitate about 4 miles from Nottingham, are just now a centre of attraction to crowd of gardening enthuiast and other from the home and neighbouring counties wishful to see and admire the noted collection of Chryanthemums which is on view. Here they have the opportunity of inpecting all the latent varieties, and judging any novelties without the fear of becoming confued by the glowing deacriptions to which raiser are addicted. A feature adding attractivenenn to the display consiats in the apacious houses in which the plantsare ataged; nud an the pot Vines and other fruit treen, which have occupied them during the anmmer, have been to a great extent disponed of to cuatomern, apace is available for the exhibition without interfering in any way with the numerous house filled with atove and greenhouse plants.

In the principal nhow-house, 100 by 30 feet, the plante are arranged in memi-circular group along each aide with an immense bank at either end. Large-flowering varieties compose the main portion of the groupa, the choicent kind of Pompons forming a suitable edging. Rather a contrast to each other are two adjoining houses, each 100 by 24 feet, the firnt brilliantly gay with bloomn grown eapecially to cope with the large demand for cut flowers, and the aecond containing late varieties to come into bloom about Christman.

A short distance from the above-mentioned houses is the house (not open to the public) devoted to plants for exhibition parposes ; and where may be seen nome slendid blooms, which will, no doubt, figure at many of the forthcoming shown. Amongat the mont conspicuons of these blooms are to be noticed Pallanza, M. G. Montigny, M. H. J. Jonen, Noces d'Or, Dachees of York, Louise, W. Firkinn, M. Panckoacke, Colonel W. B. Smith, W. Seward, Commandant Blansett, Primrose League, E. Molyneux, M, S. H. de Clermont, Dencarten, \&c.

\section*{LIST OF GARDEN ORCHIDS.}

\section*{(Continued from vol. xiiii. p. 684.)}
91. Galiamdra, Lindl. in Bauer 1ul. Orch. Gen., t. 8 ; id. Gen. \& Sp. Orch., p. 186 ; Benth. et Hook.f. Gen. Plant. iii., p. 536; Rolfe in Gard. Chron., 1892, ii., p. 430; Cogn. in Mart. Fl. Brasos iiio, pt. 4, p. 293.-Terrentrial or epiphytic herbs, with fusiform, leafy, or nometimen very hort peudo-bulbe, narrow gran-like leaven, and terminal simple racemen of large or medium-nized flowert, eepals and petale apreading, aub-equal. Lip infundibalar, sub-entire or somewhat three-lobed, prolonged into a apar behind; side lobes loonely embracing column; disc smooth, villose, or with nomewhat thickened nerven. Colamn clavate; anther created; pollinia 2, affixed to crencentshaped gland. Species about 20 , ranging from Brazil to S. Mexico.
(1.) G.barbata, Lem.,in Iul. Hort, iiii. (1856), Misc, pp. 86. 89 ; \(1 d_{0,}\) vil., t. 248; Rolfe, in Gard. Chron. 1892, ii., p. 430. - Brazil,

Amazon district. Introducad by Menre. James Veitch \& Sons, and described from plant which flowered in the establishment of M. Verschaffelt, of Ghent, in 1856.
(2) G. Batemani, Rolfe, in Gard. Chron, 1892, ii. p. 430 ; Veitch Man Orch., pt. is p. G. Baueri Batem Orch. Mex. \& Guat., t. 19 . of Lindl ) ; Bot. Reg., xxvi., t. 49 ; Paxt. Mag. Bot, xiv., P. 49, with plate; Orchid Albwm, vi., t. 267; Puydt, Les Orch, pp. 196, 197, fig. 193.-South Mexico. Sent by Row in 1838 from the neighbourhood of Oaxaca to Mr. Barker, of Birmingham, in whowe collection it ahortly afterward flowered. It was then confused with G. Baueri, Lindl., a very distinct apecie from Gaiana, and the mintare was not found out till quite recently, when is was found necesary to give it a new name, Bateman remarked that it was found some thousand milea away from its original habitat, but, singularly enough he appeasi not to have noticed that it was a different apeciee. A second error also occurn. The anthor itaten that Mian Drake prepared the exquinite dram. ing "assinted by native specimens more recently discovered by Mr. Skinner in Gaatemala," but these evidently belonged to aome other species, a the old bulbe are funiform in bhape. Paydt hat reproduced the error. It is now rare in cultivation.
(3) G. Baurbi, Lindl., in Bawer Ill Orkh, Gen., t. 8 ; id., Gen. \& Sp. Orch., p. 187; Bot. Mag., t. 4701 (var. floribus luteis); Rolfe in Gard. Chron, 1892, ii., p. 431 ; Veitch Man. Orch., ix., p. 6 ; Cogn. in Mart. Fl. Bras., iii,, pt. 4, p. 297. G. cristata, Lindl., Bot. Reg., xxx., Misc., p. 72.-Gaiana. The original species of the genur, deacribed by Lindley from a npecimen collected in French Guiana by Martin, but afterwards confaned with the preceding one by Bateman and othern. It afterward flowered with Mesars. Loddigen in 1840, and was re-deacribed by Lindley under the name of G. cristata. It also flowered at Syon House in 1853, when it wat thought to represent a distinct variety of the preceding. The New Granadan G. diven is sometimes considered identical, but this is doubtfal, as will be seen in a note under that apecief.
(4.) G. Clarsii, Cogn., in Journ. des Orch., iv. (18y3), p. 202; Lindenia, ix., p. 17, t. 301 ; Orch. Review, i., p. 348.-Brazil. This apecies flowered at Kew in October, 1888, when I thought it was probably new, but did not deacribe it. Afterwards it wa introduced by M. Claes, probably from North Braxil, and flowered in the establishment: L'Horticaltare Internationale, Brasels, in 1893.
(5.) G. Drvoniana, Schomb., ex Lindb. Sert. Orch., t. 37; Schomb. Reise, iii., p. 912 ; Paxt., Mag. Bot., viiii., p. 145, with platt; Bot. Mag., t. 4610 ; Maund. Bot., v., t. 231; Lem. Gard. Fleur, iiio, p. 195 ; Ill. Hort., xxi., p. 110, t. 176 ; Warn. Sel. Orch., ner. 1, p. 110, tindenia, ii., p. 67, t. 80 (var, Delphina) ; Rolfe, in Gard. Chron. 1892, ii, p. 431 ; Veitch Man. Orch. ix., D. 7; CogD., in Mart. Fl. Bras., iii., pt. 4, p. 295.- Brasil, in the Upper Amazon district, British Guiana, and Venezuela. This, the largest and handmoment specien in the genar, was originally introduced by Schomburgk from the Rio Negro, and flowered with Menarn. Loddiga, of Hackney, in May, 1840. Schombargk peaks highly of ite beanty, and record clumps of it growing from 5 to 6 feet high, and 3 to 4 feet in diameter. He slao meti with it both on the steme of Mauritis flexnone and on the ground. It has since been found in other localities.
(6.) G. DIVEs, Rechb, f, and Warsc., in Bonplandia, ii. (1854), p. 98; iv., p. 323 ; Rolle, in Gard. Chron., 1892, ii., p. 431.-Ne Granada. Thir hat been united with Baneri, Lindle, from Gaiana, but judging from dried apecimens, it appeara to be some what different. It was deacribed in 1854 , and was probably firat introduced to cultivation by Hartweg who ent apecimes to the Horticultural Society.
(7.) G. Furen Rechb fo in Gard, Chrom, 1887, i., p. 512 ; Lindenia, ii., p. 87, t. 90 Cogn., in Mart. Ft. Bras., hii., pto 4, p. 297 . Venezuela. Introduced by Bangeroth, flowered at L'Horticulture Internationale Brusself, in 1887.
(8) G. Harvifana, Rchb. f, in Gard. Chron., 1883, ii., p. 716; Rolfe, in Gard. Chron., 1892, ii., p. 431 ; Cogn., in Mart. Ft. Bras., iil., pt. 4, p. 302.-Habitat not recorded, but probably Brazil. It wan described in 1883, from the collection of E. Harvey, Eeq., of Aigburth, near Liverpool.
(9.) G. Joncea, Lindl. Sert. Orch. (1838), anb t. 37; and iu Hook. Lond. Journ. of Bot., ii., p. 672 ; Rubb. f. in Walp. Ann, vio. p. 649 ; Rodr. Gen. et \(S p\). Orch., ii., p. 175: Cogn., in Mart. सh. Bras., iii., pt., iv., p. 306; Phaius rosellus, Lem., in Fl. des Serres, ini., t. 301,Brazil and Guiana. Introduced by Kegel to the eatablishment of M. Louis Van Houtte of Gand, Belgium, where it flowered in 1847. It ia probably not now in cultivation.
(10.) G. lacustbis, Rodr. Ger. et Sp. Orch. Nov, i. (1877), p. 86 ; Cong., in Mart. Fl. Bran.oiii., pt. 4, p. 304, to 71, fig. 1: G. Descaqnolliana. Rchb. fo, in Ill. Hort, xxxiv. (1887), p. 63, to 22 ; Rolie, in Gard. Chron., 1892, ii., p. 431.-Upper Amazon, Brazil.
it is said to grow in large tufta, and to keep on flowering on the old peeadobulbs for yearn.
(14.) G. Stangeana, Rebb. f., in Bonplandia, iv. (1856), p. 323; Rulfe, in Gard. Chron., 1892, ii.. \(\mathbf{~ D . ~} 431\); Cogn. in Mart. Fl. Braso, iii., pt. 4, p. 301.-Brazil, in the Amazon diatrict. Thie apecers flowered in the collection of Conal Schiller, at Hamburg, in 1856, but eeeme to have since been completely loat sight of.
92. Cyrtopera, Limdl. Gen. \& Sp. Orch. (1833), p. 189. - Habit and general structure of Eulophia, from which it is distinguished by the presence of a foot to the column. It is reduced to Cyrtopodiam by Bentham in the Genera Plantarum, but is certainly distinet. Species abont twenty-fire, found throughout the tropice.
(1.) C. andamanmmsis. Eulophia andamaneneis. Kchb. f., in Flora, 1v, (1872), p. 276; Hook. \(f\)., Fl. Brit. Ind., vi., p. 8.-Andaman Islande and Tensaserim. Plante were aent to Kew by the Rev. C. Parioh, where they flowered in Jane, 1862. The pecies hat also


Fig. 100-virw in thin new evelin park at deptford. (sel p. 576)

Sent by Mr. E. S. Rand of Pasfa to Mesarn. Linden of Brussels, who flowered it in 1887. (11.) G. laqoensis, Rchb. f. et Warm, in Otia. Bot. Hamb. (1881), p. 88: Warm, in Vidensk Medd. Kjobenh., 1884-86, p. 87, t. 6, fig. 6; Rolfe, in Orch. Review, ii, p. 300; Cogn., in Mart. Fl. Bras., iii, pt. 4, D. \(296 .-\) Brazil. Introduced by Mears. F. Sander \& Co., from the Rio San Francisco, and flowered in their eatablishment in Jaly, 1894.
(12) G. minax, Rehb. f., in Gard. Chrow., 1874, i., p. 786; iic, p. 98; Rolfe, be, 1892, ii., p. 431. - Habitat not recorded. Flowered in 1874 , in the collection of A. Sillem, Eeq., of Sydenham. It is asid to be near \(G\). dives of Sydenham. It is asid tho beyng is known of it beyond the original description.
(13) G. nivalis, Hort., Gard. Chron., 1882, i., po. 536. 537, fig. 85 ; Rolfe, \(l\) c., 1892. ii,, p. 431, fig. 70 ; Ill. Hort., x x xii., p. 63, t. 555 ; Rolfe, in Orch. Review, i.. p. 274 ; Cogn., in Mart. Fl. Bras, iii., pt. 4, p. 299.-Brazil, in the Amazon district. This originally flowered in the collection of Sir Trevor Lawrence, Bart., Burford, Dorking, when nothing was known of ite origin. It has aince tranepired that it was discovered by Mr, E. S. Rend, of Past, on the Rio Negro, above Mant \(\boldsymbol{b}_{4}\), where
flowered in the collection during the present mammer, not, of course, from the original importation.
(2.) C, bitubbrculata, Rolfe. - Leaves linear-lanceolate, acute, about 18 inche long. Soape about 2 feet long, many flowered; bract: linear, acuminate, \(\frac{3}{4}-1 \frac{1}{6}\) inches long; pedicels, 3-1 inch long; sepais linear-oblong, abobtuse, \(9-10\) line long. light green; petals oblong, ub-obtuse, 6-7 sines long, white; lip three-lobed, 8-9 lines long, green, side lobes veined with dull parple-brown; side lobe rounded, front lobe brondly oblong, obtuse, undulate, disc with a pair of erect tubercles near the base, and about four irregularly crenulate purple-brown keels in front of the anme; column clavate, 4 lines front of triped with purple-brown in front, its long, atriped wita parplobitat not known. foot 2 lines lona.-Habitat not Garden Flowered in the Glamevin Botanic Garden in Jane, 1890, and on sabsequent occasions. Mr. Moore had purchaned it at Stevens' 8ale Mrome in 1881.
(3) C. Frata, Lindl., Gen. \& Sp. Orch (1833), p. 189; Royle, Ill. Bot. Bimal., pp. 366 370, t. 88, 6g. 1; Rehb. f. in Gard. Chrow., 1870, p. 1407 ; Cyrtopera Cwlleni, Wight, Ic. Pl. Ind. or., v. p. 21, t. 1754; Ewdophia Aava, Hook. f.

Fl. Brit. Ind., vi. p. 7.-W. Tropical Himalaya, Travancore and Hong. Kong. Flowered in the eatablishment of Mesara. James Veitch \& Sons, of Cbelsen, in 1870. A very handsome opecien.
(4.) C. flexuona. Rolfe, in Kew Bull., 1894, r. 363 ; Orch. Revirw, ii.. D. 359.-E. Trop. Africa. Sent from Mt. Kilimanjaro to Kew by Conaul C. S. Smith, and flowered in the collection from May to Auguet of laet year.
(5.) C. nuda. Rehb. f., in Flora, Iv. (1872). r. 274. Eulophia nula, Lindl., Gem. \& \$p.
 P. 5 ; Rolfe, in Gard. Chron., 1891, i., p. 701. -Indis. Flowered in the collection of Sir Trevor Lawrence, Bart., Burford, Dorking, in Mav. 1891.
(6.) C. papillosa, Rolfo, in Kew Bulletin, 1833, p. 336 ; Orch. Rerievo, iio, p. 53.- Natal. Imported by'Mr. Jame: O'Brien, of Harrow-on-the-Hill, and flowered in the collection of Sir Trevor Lawrevce, Barti, Burford, Dorking, in August, 1892.
(7.) C. plantagnea, Libdl.. Gen. and \$p. Orch.. p. 189; Rebb. \(\mathrm{f}_{0}\), in Gard. Chron. 1882, i., p. 700. Cyrtopodium plantaginerm, Bentb., in Journ. Linm. Soc., xviii., p. 3:0.-Madagascar. Flowered at Kew in June, 1871, and in the collection of Baron Hruby, of Bohemis, in 1882.
(8) C. sanadinsa, Liadj., in Journ, Lime. Soc., iiii. (1859), p. 32; Bot. Mag, t. 6161. Eulophia sangnimea, Hook. f., Fh, Brit. Ind. vi., p. 8. Cytopera rufa, Thwo, Enum. Pl. Zeyl., p. 302.-India. Flowered at Kew in 1874 or 1875 , and again recently.
(9.) C. squalida, Rchb. fo in Bonplandia, - (1857). p. 38 ; Lindl.. in Jowrn. Linn. Soc.. iii., p. 31. Eulophia squalida, Hook. f., \(F l\). Brit. Ind.. vi.o p 6-Malaya. Flowered at Kew in June. 1887.
(10) C. Woodrondr. Lindl.. Gen, and \(\$ p\). Orch., p. 189. Cyrtnpodium Woodfordi. Sim:, in But.. Mag.. t. 1814: Lindl., Bot. Reg., \({ }^{2}\). 1508. Lissochilus amazonicus Rodr., Gen et \(\$ p\). Orch. Nov., i., p. 89. Cyrtopera amazonica, Rodr. l. c., ii., p. 180. (yrtopera Velloziana, Rodr. l. c.. iio, D. 179. Cypripedium epidendricum. Vell. Fl. Flum., is., t. 64. Paphiopedilum epidendricum. Pfitz. in Engl. Bot. Jahrb.. xix., p. 42.-Tropical America. Sent from St. P'ui, Bresil, by E. J. A. Woodford, EA., to Mr. Anderwon, Curator of the Apothecaripa Garden at Chelapa, where it flowered in 1815 or 1816. R. A. Rolfe.
(T0 be contisued.)

\section*{Forestry.}

\section*{TEE EDUCATION OF THE FORESTER.}

ANY kind-hearted foreigner visiting this country and chancing to rad an account of Mr, W. H. Long's reception of the forentry deputation in Edinbargh recently, would probably come to the conclusion that eatate-owners throughout the country were in some need of scientific advice on forestry matters. Were he to give the first landowner he met the benefit of his aympathies on this point, it is bard to any whether the attitude of the latter would be one of astoniahmeot or of momentary conaternation at the possibility of unounpected calamities. Mutual explanations would diaclose a fact which enthusisats on this question would do well to realise, via, that the great mojority of British woods owe their exintence to the game they harboar, and not to the timber they grow, or are capable of growing. There will, of course, be nothing novel in this atatement to thone who ponsens the slighteat acquaintance with the management of British eataten. Bat many seem to imagine that this state of thinge will one day be altered, and British forestry attain to the position it holds on the Continent. Estate proprietorn, we are told, take little intereat in the economic side of wood management owing to the deplorable lack of technical knowledge on the part of their foresters. The latter are very good men in their way, ay they, with intelligent ideas as to the practical part of their work, batare aadly deficient in (and bere our patron almont break down) acientific knowledge. "Jock ne'er did much gude at the achule," mid an old Scotch farmer to a
lawyer to" whom he wished to article his son, "and ye'll find him an awfu' bear." "Send him along, Mr. Brown, end him along," was the legal gentleman's reply. Substitute practical work for fiction, and estate proprietors are pretty much of the lawyer's opinion when engaging foresterm, not because the parely practical man is more capable than one with a technical training, but because the practical experience is wanted, while the other is not. There are few eatates in England on which the woods are expected to yield more than suffices for their maintenance as game preserves, and any surplus above this can form but an insignificant proportion of the revenues of a large entate. Any increase of this aurplas gained by skilful management can only be a slow buniness at the best, and at the prewent day, proprietors are generally well atiafied if they leave their estaten in as good condition an they found them; under thene circumstances, it is rather difficult to wee where the anaerted or supposed demand for scientific foresters exista Those who do want them are apparently under the impreanion that advertiaing does not pay, for they never exprean their need through that medium, and thone foresters who have had a little training in that line would do well to take the hint. For the present, at any rate, it is one of those talents which thrive bent under a bushel, leaving the dark waters of practical forestry to be illumined by those distinguished amateurs who are always eager to teach the practical man the elements of his calling. The latter may derive occaaional scraps of comfort from visions of a promised land, where the rabbits cease from nibbling and the pheasants make no nent; but he should never forget that he is atill in the desert, with no immediate prospect of getting out. When entate-owners want highly-trained foresters, they will neither hesitate to may so, nor gradge the expense of keeping them. Until they do these thinge, however, the young forenter would be wise not to indulge in dream which have little pronpect of realization. Let him get as mach technical knowledge as he can, but he mast not expect to find a market for it at the outset. Sach knowledge chould be regarded as a reserve fand, and not a a working capital, otherwise he may find a difficulty in disposing of his wares. The disinterested friends of both estateowner and forester may feel proud of a well-finished protege, but the latter will find that certificates and diplomas will not be accepted at subatitute for experience in the rough field of practical work. When an appointment has been secared, and he attempte to put his acientific ideas into practice, he may find obataclem in the way that he little suspected, and be compelled to tread in the empirical footstep of his predecessor after all. Until eatate-owners regard their wood. in the same light an their home-farm or their kitchen gardens, they are scarcely likely to call in mcientific aid in the management of them, or in other werds, to pay for an article they do not want. Properly-managed woods undoubtedly add to the value of an entate, but they neither necensarily enrich thone who are responsible for their improvement, nor fall in with their individual tastes and fencien regarding game-preaerve management. Until they do ao, their syatematic treatment remains little short of imponible, and the technical training of foreaters pure and simple an unnecessary proceeding. Every now and then we may come across an eatate, the owner of which is buth willing and anxious to have his woods managed on econcmic principles, but at present such are in a very small minority A. C. Folbss.

\section*{variorum.}

The Ben Davis Apple. - This is what a farmer from Stenbed County remarks in the Kansas Farmer abcat Ben Davis Apple, after seeing the wonderful orchard. of Cley County. The fruit of this variets is evidently peculiar for*", it "lack o flavour, and it appeare to be largelylin demand by
planter: in aome parts of the States:-"The Ben Davia ain't an eater. It's a cooker, and its crop never fails. And the Ben Davis never rots. Bruise any conventional Apple, and that settle it. The braise tarn to rot, and the rot takes hold of all the rest of the Apple. The Ben Davis doesn't put up with any such nonsense. Bruise it if you want to, but that bruise will simply dry up, and that's the end of it. The reat of the Apple will stay just as round as ever. And the Ben Davis never freezes. Or, if it should freezs it don't mind it. Freezing doesn't affect it in the least. It is just as solid after it is cooked a it was before; it never falls to pieces under cooking, whether whole, halved, or quartered. Then, having no trace of flavour of its own, it readily take any other flavour and becomes a novelty to the housewife and the fruit canner. Imagine having a big, whole Apple placed before you, and, when you tante it, finding that its flavour is that of the mont luacious Peach, or juicy Pear, or Apricot, or Orange or anything elee the hostess has seen fit to make it That's where the queer Ben Davis Apple comes out atrong and metaphorically knocks the socks off all other Apples on the Egypt Apple belt. Chicago and the South and West are dead stuck on this Apple and it genus, and buy it at any price. It will keep sound from one picking season to the next.

\section*{The Wesk's Work.}

\section*{ERUITS UNDER GLASS.}

By Righard Parker, Gafdenet, Goodwood, Chichestep
POT VINE8. - Sapposing that the vinery has been put into thorough order for the meason, and everything is in readiness, a atart should be made forthwith if ripe Grapes are required by the family about the end of the month of April. Before placing them in the vinery, wash the canes with warm soapnade made with soft-soap, to remove insecte or their egge that may have collected in the crevicen of the bark. Carefully remove a little of the arface-soil with a sharp-pointed stick, replacing it with fresh rich lomm, to which a prinkliag of Thomson's Vine Manure and crashed bone should be added, making it quite firm with the blunt end of a potting-stick. If the ball of moil and roots be thoroughly mointened before it in top-drensed, but little root moistare will be required by the Vines uatil they begin to grow. The planta should be arranged in auch a manner as to bring ap the pots near the trellis, and to do this it may bs necesbary to fix up a stage over the front hot-water pipes, which will also allow of fermenting-material being placed between the pots. The forcing in the early atage must be very gradual, fire-heat being ased only when the temperature of the house is likely to fall below \(50^{\circ}\). It in a great amintance in inducing Vine to "break" evenly, to place a bed of fermenting-duog and leaves inside the house, as it not only given off a genial warmth, but charges the air of the vinery with ammoniscal rapour, The canes ahould be bent down in such a manner as to check the flow of sap to the terminal bude, if once these get a start in growth, the back badsmay remsin in great part dormant; it it therefore very necessary to watch the development of the buds, and to take means to ensure the whole of them "breaking" at the wame time. The house should be kept shut up generslly, giving a little ventilation only at midday. The canes may be ayringed twice a day, and if a night temperature of the house can be kept from falling below \(50^{\circ}\) with the use of the hot-water pipes, 10 much the better, for at least ten day. or thereabouts.

EARLY PEACHE8.-The earlient of the pot-treea which have been prepared some time before they shed their foliage by top-dreasing, \&c., may now be brought ander cover. More care will be found necesary with these plants than with Vine during the early mages, an any great degree of excitement often caase the bud to drop wholenale. To guard againat this evil, flactastions of temperature must be carefully avoided, and the treen should not lack water it the roots. The treen should be syringed twice daily, and the house kept humid by damping the pathw, walke, \&cc. Draught should be guarded against by affording air only a the top of the houses ; and sunheat utilised an much as possible, closing the house early in the afternoon. When fire-heat has to be applied, it should be of
a very moderate degree for a time, only an mach a will keep the temperature from descending lowe than \(45^{\circ}\) during cold weather during the firut fort night. The time apparently lost at the firat can be made up withoat injury accruing to the trees by forcing harder when the day get longer, and then is more sunlight.

\section*{PEE FLOWHR GABDIM,}

By Baileey Wadds. Gardener, Birdsall Garden, Yot
THE ROSES.-Daring open weather the trase planting of Rosel from the open ground maj bo proceeded with, if the soil be not in a condition too moist to trample upon without aticking to the thom When the soil is too wet, it usually sets hard abons the roots, and the plants do not thrive. The mamen made use of ahould not be placed near the root if it be not decayed. Charred soil, wood-abher, and the like may be employed instead of manare, then bine valuable materials to mix with the coil aboat the roots when planting or top-dressing, Hybrid perpetuals and many of the Bourbon Roven are better for being planted in the autamn; but hybrid China, Teas, and other tender Roses in the apring. When planting is ended, afford the bede a 2 -inch mulching of short dang, but do not let it touch the nems of the Rosen, it being chiefly the roots which require protection from frost. Severe pruning back at the time of planting should not be practined, bat thinning out and shortening of the strong thootic may be afforded, so as to reatore the balance betwee top and root. Broken or badly-braised rots may be cut back, at also any very atrong fibreless roots. The general praning of eatablinhed Roses is better left till the apring has amived; but it may be found adviable in some gardens to prune a few plants of H.P.'s at the prenent time, for should the winter be not very severe, thene phats would bloom nome time before the apring-prune ones, and thus a longer season of Rosem be obtained
becs of bourbon, China, MO88, NOIQETTE OR CABBAGE ROSE8, the shoots of which have been peggod to the groand, should now be freed from th pege, the noil of the bede pricked over, and s top dressing of manure and charred refuse afforiel The atronger thoots may be pegged down as before and the weak ones removed. Other praninge these Rose should wait till the spring.

HYBRID TEA ROBE8. --Mont of thene are tender succumbing often to eevere front, and it is adrinble that the planting and pruning be deferred till th spring. If bed of thene varieties can have prow tion from a wall or urabberies, and be furthe protected with Spruce-boughs, bracken, or litter in hard weather, much loas of plants may be avorta Bed of Tes Rose should always be well druiz and the soil deop and rich.

PILLAR AND CLIMBING ROBE8.-The hardient and bent Roses are the Ayrahire, Bournali, in evergreen varieties, the Polyanthas, and Tuner Crimson Rambler. The Banksian Roses in mil and yellow varieties are not everywhere quite hard requiring the protection of a mat, at well so wo planted ggainst warm walls. The pillar huar should now have the weak and over abough shoot thinned out, half-a-dozen being enowh retain, and these should be cut to varioul heig When a shoot is removed, it should be taker clat o away at the base, from which point all the shoom a pillar Rowe ought to apring.

SWEET- BRIAR ROBEB.-The new Lord Perzance hybrid should not be forgotten, an their frag variety of colour, and form of blooms, reco bulter them as hedge plants, and as pillar Roses and The present season is the time to plant them.

8TOCK \(A\) FOR BUDDING ROSE8 NEXT 8EABONDog Roses, Manetti, eedling Briars, and hol polyantha should now be planted. The stiong befor of the Dog Rowe should be praned hard back foof nlanting them. The diatance for dwarfa feet by 2 fe
feet

\section*{TED HARDY FRUIT GARDII.}

By W. Pope, Gardener. Highchere Castio, Nabomeration
PLANTING FRUIT TREE8.- Planting opebbe cole should now be proceeded with in favery enough dition of the land, and when it is bootn or sloe tread upon without aticking to the hond, and mis In planting have some turfy lomm at hand dariof a barrowload or two in about the rook darid
planting of wall or other choice fruit trees. Nothing that can be given to the tree is so potent in the pro duction of roote as maiden loam ; and if it be denirable or necessary to shift the plants, the operation may now be done with the minimam of injury. Ualess the oil is naturally of a calcareons nature planter and mortar-rabble will be very beneficial if added to the soil in which stone-fraits are to be grown. If the frait trees were ordered in good time from the nareeryman, they should now be coming to hand. When a bundle of trees arriven, it should be unpacked and laid-in singly, never in bandles, till they can be planted. If the stations are not prepared for them, lose no time in getting them in readiness for the reception of the treen. Directions have been given in previona Calendars in regard to planting, so that nothing further needs to be said here on this matter Mulch at once with mome rather light strawy manure After the planting is finished, see that the nursery labela are replaced by others of a more permanent kind. Newly-planted wall-trees must not be nailed or otherwise fastened in position till the apring, when the ground will have settled aufficiently, but a few loose ties may be given them. Buah-fruite may now be planted on well-manured and trenched ground. Buahes of Gooseberries, and black and red Carrants, may atand at 5 feet apart; and white Carrants, not being strong growers, may atand at 4 feet. After planting, afford a thick malching of spent-manure. The space between the newlyplanted busher may be profitably utilised by early Potator, alading, Violets, \&Ec, for two or three years, without detriment to the fruit-bushes.

\section*{THE ORCHID HOUSEs.}

By W. H. Wimek, Orehid Grower, Burford, Dorkimg.
hints on treatment.-November is generally coneidered the period at which the winter trentment of Orchid plants should commence. For the next three or four month vigilance will be required on the part of the cultivator in maintaining a regular temperature in the hounes, in avoiding as far as possible sudden fluctuations, and preserving the bilance between the degree of warmth and the required amount of moisture. These are important matters which, owing to our changeable weather, are difficult of accomplishment at times. From the present time for the next few month to come the heating apparatus will have to afford most of the warmth in the various housen, and should be carefully made use of, an excess of fire-heat frequently being the cause of the deterioration of the plants. The injurious effects of much artificial heat being used should be as far as ponsible counterbalanced by the admiasion of fresh air and the ane of water in damping the pathe, \&cc, and thus moderate the otherwise too dry air of the housen. It in aloo good practice daring spelle of front to cover the houses with canvas, mate, \&cc. Archangel mata are cheap and convenient stuff, the ends of which may be neatly tied, and meveral mata sown together in different lengths, as required along the lower part of the roof, the coldeat part of a glase-house, putting them on at duak and taking them off at daybreak. As a afeguard, thene coveringe should be made necure in some manner, and when wet or frozen, they ahould be thoroughly dried before aning them again. The night temperatare of the house should, for the present, range as follows -Eaat India-house, \(60^{\circ}\) to \(65^{\circ}\); Cattleya-house, \(55^{\circ}\) to \(60^{\circ}\); Mexican and intermediate-honse, about \(55^{\circ}\), and the Odontoglomum-house, about \(5 \mathrm{~J}^{\circ}\) to \(55^{\circ}\), the higher degree of warmth being afforded only when the air outaide is mild ; the lower degree being adhered to when there is frost, or the wind is very cold and piercing. The day temperatare, as maintained by fire-heat, shoald range between and up to the higher figuren indicated; and on light. bright daya, as much higher al the sun-heat will raise it, with the ventilators open to some extent. In ventilating the houses in cold weather, the openings at the top of the house should be opened slightly, there boing then less risk of the plants getting chilled. Oqing to the recent heary rainfall, the need for damping-down has been less during the day, nor will there be any reason to do so to any great extent anless frosty weather compels the ane of a great degree of fire-heat. A moderate damping down morning and evening will suffice for the East Indian divition, and a good damping in the morning will snffice for the Cattleya, Mexican, and inter-mediate-houses, merely aprinkling the floorn in these
houses in the afternoon. In the cool-house, where little or no fire-heat is at present need, except, perhaps, at night, one good damping-down in the morning will auffice for dull days, bat eprinkling the pathe after a sanny day. At this time of year it is very necessary that each house should become dry about noon, and the failure to insiat on this simple precaution is sare to be followed by ill-matured growthe, "spot," and other maladien.

\section*{PLANTS UNDER GLASs.}

\section*{By W. H. 8mith, Gardener, Went Dean Park, Chechater.}

\section*{THE ROBE-HOUBE.-The present is a good time} to prune the plante and thoronghly cleanes them and the house. To do this the more effectually, the former should be taken down from the trellises, which will allow of a cleaning of the roof with hot suapsuds. In pruning remuve entirely all the weak shouts, and whorten back those which are strong, pruning each variety so as to suit its peculiar mode of prowth and flowering. When the trellis and pillar Rosen have been fastened again in their places, a good ayringing with asp-sud contaning one wineglaseful of petroleum to 4 gallons of the ada, at a temperature of \(90^{\circ}\) should be afforded. The cruat of the beds and borders should then be removed to the depth of 3 to 4 inches, and a top-dreasing afforded of rich frest loam and bone-menl. Any loses that may be in an unastiofactory condition thould have their roots examined, and if the soil be impoverished or soured, fresh soil should be pricked out carefally and replaced with new, apreading the root carefully through it, and making all quite firm about them Any required planting thould now be carried out, taking care that the Rose plante are vigorous and healthy. Potted H.P.'B intended for forcing may now be pruned, that is thin out the weak thoote and ahorten atrong onen to one-half and one-third their length. Examine the draiasge, and if it be faulty put it right, and afford a top-dreating of rich loam, well ramming it into the pots. Rusea for increasing the atock of pot plant may be potted up forthwith, selecting for thi parpose either home-grown or nursery planta. Whether worked or own-root 1 l , sen, no harm will be done by shortening back some of the atronger roots, aa by so doing many fine feeding roote will be induced to puoh. The size of pot found asefal is the 32 , bat the plant should not be crammed in pote much too emall to hold the roota. The pottiogstick should alwayn be used in potting Roses, and for this reason, the soil must not be very damp, or it will have its texture poiled. If the lom is inclined to be clayey, use rough manure and a little coarse sand.
the conbervatory. - Introduce fresh plante as thes come into flower, and remove atale ones so that the honse may be kept bright-looking. If the house be not kept at a low temperature, planta of Poineettia palcherrima may be aued to brigbten it, also some Roman Hyacintha, Mignonette, B Juvardiae, Richardiar, Cypripedium insigue, Primalas, and the winter-flowering Begonisa John Heal and Gloire de Lorraine. When arranging the planta in this bouse, overcrowing should be carefully avoided, as owing to the lack of light they auffer, loning leave and damping off. As foils to the flowere, employ such fine foliage plants an Grevillea robuta, Acacia lophantha, Chamxrops excelsa, C. hamilis, Kentia Fosteriana, K australis, Aralia sieboldi, Casuarina ericoiden, \&c. The temperature in a hnuse of this kind shoald now be at \(60^{\circ}\) by day, and \(55^{\circ}\) by night, affording both top and bottom ventilation in moderate amount. The floors should be kept dry, and spilled water or that which rans from the pots, thould be mopped up early in the day. When the flowera of the Chryanthemum begin to fade, remove the planta and cat down the stema, placing the planta in a light, airy house to atrengthen the shoots before beginning to propagate from them next month. Nur these plant are in flower, toe that they are correctly named.
michardias.-Should the e plants be in demand at the end of December, planta man now be placed in a warmer hoase, if from appearaces it it surmised that they will not flower by that time. A vinery or Peach-house just atarted affords a suitable place for hastening the opening of the apather. If roots are plentiful, the plants may have rather liberal doses of manure-water, and occarionally fomigate them to kill aphis.

ZONAL PELARQONIUM8. - Tbe hot nummer wan well suited to the needs of these plantis, and they are in consequence flowering admirably. Whilat they
continue in bloom the air of the boeve abould be kept rather dey; and a mean to eecare the desirable dryneas, a alight amount of fire-heat should be used, and fresh sir admitted at the cop and bottom of the house. The mecessary watering of the plants should take place in the morning, and if the plant are in fall bloom, clear water caly aboald be used.

\section*{THE EITOBTIN GAKDKD}

\section*{By Jonm Lamergt, Gandener, Pown Cuetie, Welahpooh.}

CHICORY. - Keep ap a supply of this ueeful plent for malad parpones. Place the roots is large pots and put in the Mushroom-hou*e. Here they will not require any covering, and the atmospere just saiting them. By putting in a good-sized potful each week, a continuous sapply may be had the winter through. Where a Muahroom-hoase is not to be had, Chicory sany be pios. into any house with temperature of about \(1 \omega^{\circ}\), covering them ap by placing an inverted ampty pot over them, and over this a piece of Frigi Domo to exclude all light from them.

DANDELION. - The large Firench leaved of thin variety if grown in rows and created similarly to Chicory, make nice roots for lifting and atoring ready for use through the winter, and are a nice wholesome addition to a salad. These may be treated in precisely the same way as Chicory; or if preferred in a green atabe, any warm greenhouse will suit them.

MUBTARU AND CAEB8.-Make nowinge of this regularly every week, so that anpply of nice young, tender growtha may be alwaya at hand. Catting boxes are favourites for this parpone, and can be easily pushed on in a warmer house if upply is not equal to demand at all timer.

RADI8HE . - Sowing of these may be made from now onwards, to follow on alter those from outaide are finished. I'ste filled with beating material, on which may be placed about is inches of soil, having the surface within 1 foot of the roof-glase, make nice placen for growing thene, and if one hot-water-pher runs through the pit, so much the better to keap the atmosphere at the right temperature of about \(50^{\circ}\) These, If nown among other crops, anch as Potatos, are often neglected.

MINT AND TARRAGON - Get up a mupply for the winter of these ruote, and pot them, or put them into cutting-boxen and atore them away in a cool pit where they will alway be accemible in the coldeat of weather. Introduce these into a moist heat of about \(55^{\circ}\), but near the roof-glass, no that they shall not get drawa up weakly.

RHUBARB.-Although Apples are pleatiful this season, Khuharb is many places is welcomed at a change. Young roots prepared on purpow for forcing, and which have attained their fourth year, will be of a nice aize, and may be lifted from now onwarde end introduced to the Mathroom or forcing-house, for very early work lifting and placing in a forciag-houte will be the handient through very severe weather. If a fow roots are introduced about every three week, a continuou supply may be obtained; but where this accommodation in nut pro vided, various meane may be adopsed to attain tho ame end. Pita filled with warm manure, alac shallow pite dug in the ground and filled whth abous 3 feet of manare, prepared so that a gentle heat will br maintained for a long time, and covering the top with hoopa, matn, and then long litter-but these depend on the outside temperature to a great extent, and cannot be relied on to come ia to a certain date as all times. The old plan of covering this with pots and flling around and above them with hot manare on the ground where growing, I think, producen som of the best yet grown, and is more amitable for later batches; but this is bent grown in some out-ofaight part of the garden, and sear to the manureheapr. Johnston's St. Martin*, Kerahaw's Paragon, Royal Albort, and Myatt's Linnseas, are all goot varistien for this parpote.

Ma. William Coomber.-We are informbi that the Council of the Royal Botanic Society has decided to dirpease with the services of a garden saperintendent of their garden in Ragent Pafk; and Mr. Coomber, who tha filled the post for many years, will therefore bo open to a reangagement
appointments for the ensuing week.


\section*{SALES.}

Dutch Bulbs at Protheroe a Morris' \({ }_{\text {Rooms. }}\)
Roses, Hardy Bulbs, and Plants. Ferns, \&c., at Protheroe \& Morris'
MONDAY,
Nov. 18 Rooms.
Highly attractive and extensive sale of Nursery Stock at the Alma Nurseries, Faraham, by order of Mr. S. Bide, by
TUESDAY, Nov. \(19\left\{\begin{array}{l}\text { Dutch Bulbe at Protheroe \& Morris' } \\ \text { Rooms }\end{array}\right.\) What \(\left\{\begin{array}{l}\text { Dutch Bulbs at Protheroe \& Morris } \\ \text { Rooms. } \\ \text { Great Consignment of Japanese }\end{array} \quad\right.\) What is Natural The expression natural selection can hardly be considered to be as felicitous as it is familiar. The phrase must be taken in an arbitrary or metaphorioal, rather than in a literal sense. Given a tendency in plants or animals to vary, the variations which harmonise best with the conditions ander which the plant is growing may become permanent, and may even become acoentuated, so that from the originally slight variation the full-blown speeies may ultimately arise. Under natural oiroumstances, the growth and development of s species is a very slow process; but the gardener does, in comparatively short time, the same sort of work which in Nature ocoupies ages in its aocomplishment. The hybridist and gardener do actually select that variation which suits their parpose, and they continue to do so from generation to generation till the variation beoomes "fized." The variation is encouraged and protected, just as in ordinary oultivation the plant is freed from the competition of rivals, and proteoted from the intrusion and assaults of enemies.

The term adaptation is more exprensive of what really happens in these oases than is selection. But the question arises as to the origin and cause of the adaptation. Does the protoplasm of the plant or animal, or, let us say briefly, does the plant adapt itself to outward oonditions, or do the outward oonditions compel the plant to adapt itself to them or to suffer extinotion? In other words, does the power or faculty of variation preoede the ation of the conditions, or is it generated or oalled into operation by the influenoe of thone oonditions? These are the questions whioh the Rev. Gronger Hemblow has net himself to answer. In a very interesting and suggestive volume he states the oase clearly, and as it is one on whioh caltivators should have valuable information to offer, it is desirable to bring the book * under the notioe of our readers. Mr. Henslow's volume is one sustained argument, but it is illustrated by so many points in which botanists and cultivators take speoial interest, that it will be perosed by them with pleasure.

Mr. Hewslow's oontention is that a change of ciroumstances-or, as he oalls it, a "new envi-ronment"-does not "meleot" at all, but itself induces a plant to form variations. Theer varia-

\footnotetext{
-The Origin of Plant Structurea, by Self-Adaptation to the Enviromment. By Rev. Gromar bemslow, ku. (Kzaan paul, Tremoh, Trubaita Co.j
}
tions are definite, and not indefinite-s definite variation being one having a definite relation to the action of the environment in the way of effeet to cause.
It is pretty certain that there is no true selection; in any case, the word must be aned metaphorioally only, and this being so, it becomes a question whether there is in reality suoh a groas differenoe between Mr. Henslow's viewr and those of other people. Whichever view be tancen, the power to vary and the faculty of adsptos. tion to oiroumstances are the necessary factom, It is the order or sequenoe of events conoerning which differenoes arise. Mr. Hension maintains that the protoplasm varies in sympathy with, and as a direot consequenoo of tho action of external oonditions. The protoplim, therefore, must have an innate capuity of varying, which results in variations of stromure. These variations in structure are the poteraisal beginnings of a new speoies, so that, in \(\mathbb{M r}\). Henslow's words, "the origin of speoies imnee ont of the direat aotion of the environment through the responsiveness of protoplasm in the organime itself." It is not, acoording to Mr. Hrnsion,the fieroe competition and struggle to whioh plants are subjeot which enables the survivors to adiph themselves to new conditions, bat the direot aotion of those conditions. In support of his contention, the desert plants in the vioinity of Cairo are mentioned. These ocour in quantitie, but are never so crowded that any struggie or rivalry occurs between plant and plant, the real contest being between the plant and the physion diffioulties offered by soil and olimate. But me may ask-Do desert plants never vary? Our author seems to be of opinion that they do not, so long as the same environm \(n \mathrm{nt}\) is maintained, and no doubt, as a general rule, that is 80. But how is it, if the variability does not prop oede the action of external conditions, that the gardener is able to seleot minate variations among plants growing, as far as oan be seen, under the same oonditions. Again, if variations do not occur "spontaneonsly," how are weto account for the production of "sports?" Thee often ocour simultaneously over wido arem, ander the same conditions as those to whiot the bulk of the plants, whioh do not vary, are subjeat. These sports are mostly accidental revere: sions or un-mixings of beretofore blended characters, but what brings about the ohange a partioular time is not known. That it oannot be direct action of the environment is, we think shown by the facts just mentioned.
Mr. Hunslow's argoments for the elifedap tion of plants as the initial stage in the production of speoies are supported by a vast number of facts, derived from the atudy of the outer oonformation and internal organiastion of platite In this way, the struoture peouliar to platid growing in desert regions or on the seam-ooust, if the arotio regions, or on mountain-topt, passed in review. Aquatio plants, olimbiog plants, and other plant categories are prema into the service. In addition to the foots of tained by observation, Mr. Henslow bring forward oorroborative evidenoe in the shape experiments. Apart from the use made of tha in by the author in support of his arguments, it very convenient to have suoh a mass of inforte tion got together, and so conveniently arrabge whilgt the care which Mr. Henslow hes tasel to give ohapter and verse for his statements, thas to enable others to verify his referencomer deserving of ample acknowledgment. A the inder further facilitates the work of the stodean of to whom we cordially recommend the perae this most suggestive book.

Begonia Mrb, J. Heal. - To nuccenafully bridge over the interval between the ond of the flowering menaon of the tuberous-rooted nummer Begonias and that of the true winter-flowering specien, was folt by gardener to be a most denirable feat, and one that remained for a long time an-

Adonis, and now we have one of their lateat novelties, Mri. J. Heal, producing crimson bloseoms. A plant was shown by Mesers, Veitce at the Royal Horticultural Society's meeting on October 15 of the present year. The bloseomschielly male, fortunately-menare 2 to 3 inches in

Listem, Bart, be elected President, in the room of Lord Kelvin, who retires.

LImNEAN Society.-At the metting held on Thureday, November 7, Mr. C. B. Clater, President, in the chair, Mr. Gyonor Massin wat admicted


Fig. 101.-bRGONIA \(\times\) yRA. HRAC: FLOWRES CRIMFON.
accompliahed. The credit of having obtained the firato of the late-flowering new varieties belonge to Mesert. J.Veitch \& Sons, Chelsea, who by crosning B. socotrana with some of the Istf-flowering Andean taberoun-rooted Begoniss, Isid the foundation for future development. One of the earlient crome: Wat John Heal with bright rose carmine flowers appearing in a loone raceme. This variety by other cronning with tuberous-rooted parietien gave
diameter, and are chiefly produced in the axils of the leaves. It is one of a race of Begonias, which is likely to be in conaiderable demand for brightening the warm greenhouse, and furnithing ubject for indoor decoration during late antumn and winter.

THE ROYAL SOCIETY, - The anniverwary meeting of thi Society will be held on the soth ivato, when it is proposed that Sir Josmpre
a Fellow. Several volume of Crjptogamic exticcata, recently received from Madame Wendril, as a bequest from her late huband, a foreigu member of the Society, were hown, and some remarks made thereon by the Botanical Secretary. A portrait of the French nataralist, Guillaume Rondelet, Prof. of Anatomy and Chancellor of the Univernity of Montpellier, \(\mathbf{1 5 4 5}\), recently presented to the Society by Dr, H. Woodward, F.R.S., wat exhibited by the Zoolo-
gical Secretary, who gave an account of hin life and work, aupplemented by remarks from the President. Mr. C. T. Deurry exhibited and made remarks on a Scolopendrium rained by Mr. E. J. Lowe, bearing archegonia and antheridia upon the fronde, constituting a more advanced phase of aponpory than any previoualy noted. Some remarks thereon were made by Mr. Geo. Murrax. Dr. Maxwbll T. Masters exhibited specimens of the fruit of Pyrus Sorbus, Aberia caffra, and Cocos australis, from the gardens of Mr. Thomas Hanbury, at La Mortola, Mentone; and some fruits of Cocos australis, from M. C. Natdin's garden at Antibes, Alper Maritimes. Mr. G. F. Scott Elliot commanicated a paper entitled "A Revision of the Genus Pentas," in which some account was given of the distribution of these plants in Africa, with a rectification of the aynonomy, and deacriptions of five new species. The genus as a whole showed in a remakable manner the way in which local npecien occur whenever a different climate rentricta the dietribation of a wide-ranging form, and several examples of this were mentioned. A discassion followed, in which the President and Mr. W. P. Hiern took part.

An evening meeting will be held on Tharaday, November 21,1895 , at 8 p.ar, when papert will be read: 1, D. Mobris, C.M.G., M.A., \&ce., "Development of a single seed in the fruit of the Cocoanut Palm (Cocos nucifera);" 2, A. J. Ewart, "Assimilation in plants under abnormal conditions;" 3, A. C. Seward, "On a new apecien of Pinites from Wealden (England)."

The Chiswick Gardens.-We are officially informed that the Council of the Royal Horticultural Society have appointed Mr. S. T. Wright, of Glewaton Court Gardens, Ross, Herefordehire, to aucceed Mr. Barron, an Garden Saperintendent at Chiswick. It will be remembered that Mr. Whigit was the author of one of the Society's prize eanays on "The Commercial Aspecte of Hardy Fruit Calture in the United Kingdom."

Beckenham Horticultural Society.-Oa Friday evening, Mr. Edwin Molyneux delivered a lectare, entitled "Salient Point in Chryanthemam Calture," before the membern of the Beckenham Horticultaral Society in the Beckenham Pablic Hall. Over 300 were present, and the greatent intereat was shown in the nubject. Some fine exhibits by Mearr. Cannell, the Bromley Chrysanthemum Society, and by a large number of private growera, made the room look gay, and rendered the antject additionally interesting.

Aybahire Gardeners' Mutual improvement Absociation.-The firat meeting of the fifth sension of this ansociation was held in the Carrick Street Hall on Thuraday evening. There was a fair attendance of mewbers present. Mr. H. Maxwill, The Knowe, Vice-prenident, presided. The President (Mr. A. Pbingle, Middleton) read an excellent paper entitled "A Few Noter on the Dahlia," for which he was accorded a vote of thanke. Mr. M. Gante, Glendoon, exhibited a magnificent Cypripedium insigne, for which he was unanimously awarded \& Certificate of Merit. It way intimated that the next meeting would take place on Thuraday evening, 5th December, at 7.30. A vote of thank to the chairman brought the meeting to a close.

Royal Botanic Society.-At a meeting of the Fellows of this society, held in the maseam of the Royal Botanic Gardena, Regent's Park, on Saturday, Major J. W. M. Corron preniding, Mr. C. Dusigll Rudd was elected a Fellow. The Coffee trees growing in the greenhouses having frnited well this year, the necretary tried the experiment of roasting and grinding the aeede and making coffee. The beverage was offered to the Fellows at the meeting, and a very favourable verdict way pasaed apon it. The society's show of Chrynanthemums was announced to bo held this week. It was also stated that in future the gardens and concervatories would be open to the public on Mondayn and Satar-
dayn throughont the year upon payment of 18 . for admianion. The receipt of the following donations was reported:-Seeds of the very scarce plant, the large-leaved variety of Coca (Erythroxylon), from South America, and a fine cone of the edible Chili Pine (Arancaria imbricata) from the gardens of Sir Gabriel Goldney at Coraham, Wilta. A curioua Tapioca root (Manihot utilissima), grown in the society's gardens, was also on view.

Stock-taking: Осtober.-Ai was antioipated, the tide of commerce is still a flowing one, and the loss in both imports and exports during the preceding months of the year has been wiped off by the increase in both sections-resulting in a gain, last month, of \(£ 1,185,783\) in imports, and \(£ 1,680.870\) in exports ; all this, be it remembertd, in the face of the breaking up of the Saltan's empire, and a consequent paralysie in trade in Asia Minor, due to the dinappearance of Armenian merchants, either by the aword, or by the flight of the merchants from a land overflowing with horror. The value of our imports in October of last year was £35,668,385; that for the month just ended was \(£ 36,854,168\). The increase for the ten montha just cloned, compared with the same term last year, is exactly \(£ 478,489\). The following item of importa for the month are from the Trade and Navigation Returns for October:-
\begin{tabular}{|c|c|c|c|}
\hline imports. & 1894. & 1895. & Difference. \\
\hline Total value of imports & \[
\underset{\substack{8 \\ 868,385}}{ }
\] & \[
\frac{\boldsymbol{z}}{\boldsymbol{\varepsilon}, 184,188}
\] & \[
\begin{gathered}
\boldsymbol{\ell} \\
+1,185,783
\end{gathered}
\] \\
\hline \[
\begin{aligned}
& \text { (A.) Articles of food } \\
& \text { mod } \\
& \text { free } \\
& \text { drink } \\
& \text {.o. } \\
& \text { duty }
\end{aligned}
\] & 12,261,764 & 12,411,811 & +150,047 \\
\hline (B.) Articles of food and drink-dutiable & 3,007,324 & 2,832,950 & -174,374 \\
\hline \[
\begin{gathered}
\text { Raw materials } \\
\begin{array}{c}
\text { for } \\
\text { textilie } \\
\text { tures ... } \\
\text { manuface }
\end{array} . .
\end{gathered}
\] & 3,958,576 & 4,036,842 & +78,316 \\
\hline \(\underset{\substack{\text { Raw materials for } \\ \text { industries } \\ \text { sund mand } \\ \text { and mactures ... }}}{\text { (A) }}\) & 4,538,232 & 4,533,819 & \(-2,44\) \\
\hline (A.) Miscellaneous & 1,429,736 & 1,25,295 & -175,441 \\
\hline (B.) Parcel Post & 92,317 & 78,958 & -13,359 \\
\hline
\end{tabular}

There is an unsatisfactory item in the recorded increased import of manufactured goods, as to a considerable part this means a withdrawal of manufactures to places where lens wages are paid-to France for instance; where, whilat the cost of living has increased all over the country, the price paid for labour han also gone down-a double result of Protection. Fortanately, this in being recognised amonget thinking men over the Channel, iast as it is by nome American statermen-the Hon. Mr. Bayard from Washington having jant delivered himself at Edinburgh, of the statement that protection produces jobbers and jobbery, notatatesmen and purity of morale. Oar hop-growing friende, if not the brewers, will be glad to learn that the imports of Hops last month fell off some \(£ 70,016\) in value, as compared with October, 1894; ponsibly our Continental friends, finding freights so low in Eaglish ships, are taking to making their own beer, and shipping it off to other lands. And here we are reminded of one of thone aavage attempte to aettle trade differencesthe lock-out and atrike in the shipbailding trade in Belfast and on the Clyde. Pomaibly a decision to nettle by arbitration will have been arrived at ere this. A to fruit and vegetable imports, we take out the following figures :-


The "minus" quantities recorded toll their om tale, and there appeara little doubt of the detemen influence on colonial imports exercied by our hat fruit harvest; what influence also the late aboromid weather may have on both home-grown and forieg fruits remains to be seen (perhaps hae already bean). It is pleasant to notice the intereat being taken in . light railways by the Prenident of the Board of Tnde and nome of his colleagues; in Franee they my have seen much in the matter of motore to methem thinking. The nabject of

\section*{Exports}
is certainly one more interenting than ruan jut now. The rapid expansion of enterprise in our colonien is being felt more and more by our manfacturera, and those employed by them. To our American friends, textile manafactures canno bo aupplied quickly enough, and they in turn are getting better money for their raw material. Doablen Irwo Trade is being more and more appreciated ores thero as the month go by. The value of our export in October, 1894, was \(£ 19,147,996\); the figures for lat month are \(£ 20,828,866\), or a gain of \(£ 1,680,80\); the gain for the past ten montha over the same priod laat year being no lean than \(£ 6,888,736\). The attention of all the "protected" world is repper fully requeated to this brief record, and to the im. proving condition of our productive energg. Shald the three great powers quickly and quietly seltid tho Tarkish business in both Earope and Asia Nlinorthey ars big and powerful enough to do so-an rea brighter tone may characterine the record of the exports for the carrent month.

Rust in Begonias.-Cultivatora have for laes been pestered with this dieease, the precive untur of which has not been known till recently, wh Micease, the authority on the Acarine, informu that the disease is caused by a mite, a ppecian of Tarsonymun, which is so small and so tranuluend that it requires a trained eye to detect it. It halid of life also tend to conceal it. The crostaram mont destructive to healthy planth, burronis between the two aurfaces of the leaf, and eatiry oub its substance. A closely-allied species, T , buis few years ago destroyed all the Box treen in mex of the Italian botanic gardens. The Sugar.curain Barbados also anfered greatly from a similar ine (sea Kew Bulletin, April, 1890). Theg aso mow difficult to destroy, but frequent apraying with int ticides may be beneficial, and in our lat iunt yin Watson telle us that fumigation is very efifunams All badly-a ffected plants should be destroged by ulin The beat figures of Tarsonymi, Mr. Mrcausi whe us, are to be found in Cansstrint, Proppetto Acarogama Italiana, iii., Padors, 1888. t. 23; BE legee, Sotofofamiglia dei Tarsonimide Bull. Sor. Bur mol. Italo, 1886, t. xro, figs. 2 and 8, male only; wh Kramer, Ueber Dendropturs Archiv, fur Natuyday 1876, tab. viiii, figa. 9, 10, 11.

Acer Lorbergi.-A most diatinct sad hes some Maple under this name was ent to me, rew Mr.W. E. Gumbleton, of Belgrove, Qabenito give years ago by the late Lodis Vas Hoortrs, of it and being of a fine vigoroas habit of grom now developed into a fine tall apecimen, las buitiel merit, however, consiats in the specinlly in wi autumn colouring which its foliage anamer ant time of year, when every leaf becomes a clean pired yellow, making the tree an extremely chall and beautiful object in the ahrabbery, and betibit planting by every lover of distinct and in in in
foliaged trees. The name is not recogiod Index Kevenois, so that it may be knom for for some other name at Kew. I enclone a lear inion inspection, and shall be glad of your opitas of the beauty of the colouring and correctina name. [Very beautiful ; name later on. ED]

Biamingham Botanical and Ho mio TURAL SOCIETY. - We are informed by bove Hillhouse, homorary mecrehary of it is intended to hold a Daffodil (Narcinal Gand
with other spring flowerw, in the Botanical

Ejgbaston, in the month of April, 1896 (two daya nhow), at anch dase as may be deterouined by the season, of which the longest possible notice will be given to all who have intimated a desire to exbibit. A list of regalations for the guidance of exhibitors, together with a schedule of prizes, have already been drawn up, which may be obtained on application to Mr. W. B. Lathan, the Carator of the gardens.

Ealina Gardeners' Abbociation. - We underatand that Mr. W. Rubrats, gardener to J. Harris, Eaq., Braemar, Ealing, has beon appoiated Hon. Secretary to this body, one that has done-and is doing-much good by its meetings and discuasions amongst the gardeners and amateurs of Ealing and diatrict.

\section*{Home Correspondenoe.}

COVENT GARDEN PRICES FOR FRUIT AND VEGETABLES IN 1822. - It may interest your readera, amatear and profenional, to know the pricen retail that were obtained for the above seventy-three year since. Of course, we had not the facilities in thoue day we heve now-no hot-water, or cheap fuel and glase, \&c.; and it cost more to erect one 50 -feet house than one of 300 -feet could be erected in these days; but the prices, under any circumstances, appea" fabulous; for instance, 218. for a brace of Cacumber in February; 36s. for 1 lb . of Grapes in May; 30s. ditto in June. This seems to be an early as Grapes could be had, and none after November. Cherries, 30s. per pound in April ; 20s. ditto in May; Melons from 5s. to 20s. in Jane; Strawberrien, 30s. per pound in April ; 20s. ditto in May; Pine-apples, 12s. per pound mont of the year through; Fige, 18s. per dozen in August; 10s. ditto in September; Peaches, 42s. per dozen in Jaly; 21 s. ditto in August; Applen, dessert, bent, fos. per bushel in January; cooking, 18s. ; Asparagun, 21 s , per 100 in February; April, 15s. ditto; Peas, £: per half-nieve; 30s.
ditto; Seakale, \(4 s\). per pannet in March. Thia, I think, will be ufficient to how what pricen were then realised without going further into the prices of other crops. Love-apple (Tomaton), none alld, although quoted in the market all the season. It is something remarkable how the tante has grown for Tomaton daring the pat twenty years; about that time when I first began Tomato-growing on a large scale, I used to supply Mr. P. Barr with them at \(1 \frac{1}{2} d\). per pound; also Mr. Cbarles Best of the Horse Shoe Hotel in quantity at the same price; aince then, \(2 s, 6 d\), and \(3 s\). per pound have been given. Had it not been for the Tomato coming in requeat, many growers would have become bankrupt. It is this one thing that has kept them on their legs, and many have made it a source of profit; farmers and clergymen have also erected housen for Tomatogrowing for market. Edw. Beunett, Lyme, Chertsey.

REGULATION8 AT THE DRILL HALL.-Will any one kindlyssy why plante put before the Committee meetings of the Royal Horticultural Society at the Drill Hall for Certificates ahould have to be accompanied by the owner's name written on a card, and handed round for inspection, as well as the plants? A friend and I paid a few visits to these meetings daring the past summer, and we thought the method a very peculiar one. Why not enter the plant under numbers in the way that competitive exhibits are entered? Could not the plants meant for Cer tificates be numbered, and placed by themselves, before being anbmitted to the committee, instead of being, as at present, ataged among other plants already ahowing exhibitor' or owner's name? True, these plants are not intended for competition in a sense, bat is not the decision of the committee in regard to Certificatea looked apon an equal avmbolic Value to lat and 2ad prizes at a show? We also noticed if the owner of a plant was present at the committee meeting, he moved away from the table When his plant came up for judgment; but under the number system he could iurely retain his seat, and have the advantage of hearing opinions on point which may, or may not, have escaped his notice; also voting a Certificate for his plant if he wished. Visitor,

FRUITING OF MUsA CAVENDIGHI IN POTS.With reference to this matter, it would appear, from What Mr. Fletcher tate in last werk' Gardeners Chronicle, that the fraiting of Maw Cavendiahi in
pots is either new or difficult, bat our experience is that it is neither new nor difficult, having anccesafally fruited several plants in pots. We have just inished \(t w o\) good bunches of frait, estimated to weigh from 30 to 40 lb . each, " bat an the 'fingers' are gathered as they ripen on the plant, I cannot give exact weight," the eeparate fingers weighing \(6 . \frac{1}{2}\) cz.each, and the plants are grown in a No. 1 ( 18 inch) pot. Wo have at the present time aix plants at the back of a lean-to atove, four of which are in 18 -inch pote, and two in tubs. the latter being from a cask cut in two, meanaring 26 inches acrom and 19 inche in depth. The two plants in the tuba are now fruiting, having just set about nine hand each, with from fifteen to twenty-four fingers per hand. Oar mode of treatment is very simple: the noil, conaiating of turfy loam with which horso-droppinge were mixed when it wan atacked, with plenty of harp river-annd, and a liberal aprinkling of artificial manure. The plant are alway kept well up to the light, and abundance of water afforded them, giving them liquid-manure two or three times a week, from the time the pots are filled with root until the fruit is fully grown. H. Fuse, Westhourne, Lizkeard.

In your last iasue, on \(\mathrm{p}, 555\), I aee Mr . Fletcher writing of Musa Cavendinhi. I am pleaned to add we have one in fruit here; it hae been grown in a tub 23 inches in diameter by 15 inches deep; the tom is 3 feet 6 inches in height; it hae ten leaver, which average 4 feet by 22 inches. I wan disappointed in not getting a better bunch, which only contain forty "fingers," and after reading Mr. Wythen' able article on the Banana, I have been wondering I I had a good variety, or if it wat bad calture. J. Barnard.
- It in without a doubt a mintake, an Mr. Fletcher remarks in hia note on the Musa in last week's Gardeners' Chronicle, p. 555, to muppose that it cannot be fraited succeasfully in pots, an I have seen it fruited at two different places in pots, with frait equal to any produced by plants in beds. We have here at present in a \(2(0\) - inch pot, a plant carrying a large bunch of fruit, and although late in the eason, I have no doubt it will fruit perfectly. Cutting away the tip, reierred to by the Editor in his font. note, was resorted to in thi case al
Pearson, Rachan Gardens, Peblesshive.

SHARPE'S VICTOR POTATOB.-The articlen lately inserted in your columns respecting our Victor Potato are reviving rather ancient hiatory, and after the lapse of so long a time ones memory may not be so freah upon every point at it might have been some years ago. It is beyond doubt that Sharpe' Victor was raised by Mr. Richard Nisbet, Aswarhy Gardens, near here, and from the two parent Potatos au he atated, viz., an early thort-top round and the Alma Kidney. At he was well known to be an honourable truthful man, we hould accept anything he said with the most implicit confidence. The true Victor, as raised by Mr. Nisbet, is a yelluw-fleshed Potato, but a little inclined to sport into a white variety. For a few years after it was first sent out, Mr. Nisbet grew all that we sold, and it is almont certain he never heard the name of the Vale of Cleveland. As far as my memory aervea me, Mr. Short did send ut a few, probably a bag, of a Potato he had raised, a white-Henhed Kidney, rather longer than Victor, these were sent to our farm to grow, but we did not think them of any value (it might be that the meason or soil was not anitable), sad they were doubtles consumed on the farm, as we never saw them again. It in not imposnible for two independent horticalturista to make use of the same parenta in raising a new varisty of vegetable. Mr. Ninbet raised our I ake of Albany at the same time as Victor, and some years after a white Beauty of Hebron was went out, which we cannot distinguish from the Dake-no doubt this was an accidental crose between identical parente. Charles Sharpe \& Co., Ltd. (Jno. C. Gould).

Crabs ab arches - I like J. Maeers' (p. 556) ideat on the above. Barring the birde, Crabebkilfally planted and trained-woald form charming arches, alike in flower, frait, and foliage. We have long been familiar with arches of Applen, Pears, Cherrien, and Plam: but the amaller mize of the Crabs would give them an easy victory for elegance. Posibly the Quarrenden, the Golden Pippin, the Gladstone, and other high-coloured amall Apples might go with the Crabs. Here, if any further foliage in needed in Crab avenues, a few traes of Prunus Pisnardi or of the purpla Filbert will give a bronze or red hue. Beyoud Crabs, are the Acer Negundi argenteum variegatum, or the Silver Maple, so it ie called, can be trained over an arbour or arch
at readily as a Vine; the golden-leared variety of this plant in nothing like so free and ueeful. If more variety is desired, Clematit, Ampelopsis Veitchi, and tho Guld and Silver Iviea can bo so used to enrich Crabs without aeriously iojuring either their health or fruitfulnen. D. T, F.

POPULAR APPLEB. - Your correspondent, "D.T. F.," is not juatibed in bis dedactions as to the relative popalarity of certain denest Applee by the representativen of them he found at the Crvatal Palace fruit show. There were apecial clases for Rib*ton, Cox's Orange, and King of the Pippins; and theee classes alone brought to them in the order named-forty-one, forty-aine, and thirty-six dishes respectively. Golden Pippin, Golden Rusaet, and Goldea Kisinette had no anch encoaragement. So mach it is fair to aay with reapect to these excellent, but yet far too little grown varietiea. Then we had thin year one of the beat semons almost ever known for the development of Kibutons, Kinge, and Cox's, for iner, clearer amples, and better crope have rarely been seen. It is not always so with chese somewhat spoilt children of pomologista. \(A, D_{0}\)

I whould like to applement the brief list given in last inene by "D. T. F." as regards desuert varietien. Wyken Pippin, I consider good in flavour, a free doer, and a certain bearer. Court of Wick is another good Apple, beare well, hat good flavoar, and keepe late: Scarlet Nonpareil is another favourite of mine, a very aure cropper with me, juicy, and keep well into April; Kerry Pippin is another good variety, bearn well each year, the flavour good and pecaliar, and with me the tree does not canker-in fact, none of the above do here. 1 send you a fruit of eacb, and please give your opinion at to their merita. I should say, Kerry Pippin wa ripe and gatbered at the end of Auguat. I do not reckon King of of the Pippin the beat of flavour, though a good market variety. Bicton. (O) ur correapondent kindly ment a few fruit of the above-named Applen for our inspection, which quite bear out his contention, Wyken Pippin eapecially being finer than we have ever seen it; Court of Wick is also of unumal size, and good of flavour. Eid.

THE TRUTH ABOUT PRICEB.-With pleasure I answer the courteous enquiry of "D.T. F. " why Cox's Orange Pippin did not occupy a highor poaition in not paid so much from an equal number of trees on the same amount of land an those varieties named before it in the eany. The value of Cox's Orange P'ppin is certainly high, ranging, as a rale, from 30 s . and upward per cwt: Already thit year I heve diaposed of a quantity at the figure named; bat take one eason with another, the crop hat not been heavy enough with me to warrant it taking a higher place. If fally endorse the remark of "D. T, F." on Ribston I'ippin as one of the finest deasert varieties grown; but though grown both on the Paradise and free stocks, I have never yet made a profit on them. Oa p. 525, "Mid-Kent" etatem that "a glance at any market report will show the fallacy of the enayist's atatemente; " or, in other worde, that the atatement are incorrect. Probably any remark in contradiction would share the same fate as my previou atterancer, therefore I will only asy that the essay wan written early in the Aagust of the present year; but if "Mid-Kent" will write to Mr. Jobn Mills, Smithfeld Market, Manchenter, he can easily prove whether my statemente are incorrect or otherwise. Even in a season of low prices like the present one, I have had no difficulty in making 288. per cwt . for Peasgood's Nonsach in balk, and could have sold many more. I may add, that the price quoted have been made in the open market by the above salesman until this year. Since then most of the fruit has been sold on receipt of the tolegram that I despatched at the time the fruit way pat on rail, the buyers who have purchased the frait from Mr. Mill for yeara, knowing that they could depend apon the fruit being honeetly packed, and according to the wire received by Mr. Mille, and have been only too glad to bay the same before it reached the market. The Esayist. [Mr. John Mills' invoice for 'ty cef. 3 qru. 15 lb . of Apples, which our correspondent wend for our inspection, entirely bears out his contention, and it is quite correct, and in proper order. Es

THE PREBTON HALL MUBCAT GRAPEB - Y'OUR correapondent' remarks on the Muscat Vines at Prenton Hall, p. 526, how nothing that is extraordinary in the way of Grape culture. We bave, at this place, a vinery which was plantad with Mucat Vine in the month of Febrasry, 1895, that measare
on an average \(3 \frac{1}{4}\) inches in circumference 5 feet from the ground. These Vines were cut back after planting. and the measurement is that of the young canea. A. Young, Marston Gardens, Frome.

PACKING COMPETITION AT THE CRYBTAL PALACE.-Possbly not intending it, your correapondent, "One of the Judges," confirms the contention of Mr. F. Harris for the need of revision in regulations governing these competitions. Take fow first point, the qualification of the judgee. A few years since, when Messra. Webber \& Co. provided ypecial packing prizes, a leading authority (a gardener) advocated and used boxes for Grapes. Beirg myself at the time just introducing the syatem of basket packing, now generally used, and determined to give the box system a trial, and send up to a Covent Garden firm two boxer packed as advocated. When received, my ale-note was endorsed "Grapes arrived in good condition, but if in baskets, would have realieed 20 per cent. more; best buyers now refuse to look at box Grapea." Now, as to packing material, on advice from a leading firm, I adopted dry mone for Peachev, \&c. : and with me the halfyearly mos barvent comes as regular as a farmer's annual hay barvest. After reading your correapondent's letter, I made inquiry of aleamen as to any better material being now available, I have a reply saying they still prefer dry mons before anything else; the fruit travel well, and
does not heat. The wood-wool often used does not heat. The wood - wool often ins in the fruit in liable to apeck. On these two instance I maintain with Mr. Harris, gardeners are not the mont avitable jadges of packing competitions, particularly when for market The system adopted for Apples by the donor of tre apecial prize is very anitable for ample asles, or choiceat mpecimens, but in my opinion is not adapter for bulk. The regulation governing diatances would bedifficult, but might be made more \& qual, ay all fruit
had to past through a London main. line atation a had to pass through a London main- line atation a:
Paddington, Charing Cross, \&c. On diequalifyine. your correspondent is rather free. Instead of disqualilying boxes tied, the jadges would bave dune better to eall an official and request the boxes to be placed in proper classes. Being connigned to the Secretary as requented, it became his duty to see tha pach one was in it proper place, no regulation statir, the judge more happy over the other poanible diequalification, not supplying items of cost, \& \& \(c_{0}\), as in but une class is this imperative; in the other three it is quite optional, an I read the achedulp. I am aware cuch mattess were to be taken in consideration who \(n\) judging, but bting easily-inspected packages, claded that the jadges were men of anfficient con petence to estimate these. Will your correspondrnt tell us if all packages he inspected were first examiner for railway parcela label, and found each to bave ote attached? Rcbt. Grindrod.

\section*{SOCIETIES.}

\section*{ROYAL HORTICULTUBAL.}

November 12.-Chrysanthemums were again a prominent feature at the meeting of the Society held on Tuesday last, in the Drill Hall at Westmineter, and many novelties were submitted for n.p-ition by the Floral Committee. Orchids were shown in ordinary quantity, and there was a fair amount of fruit before the Committee for this ection.

\section*{Floral Committee.}

Pretent:-W. Marshall, Esq., in the Chair; and Mesars. J. Fraser, O. Thomas, H. Herbst, R. Dean, G. Stevens, E. Mawley, J. D. Pawle, C. E. Shea, H. H. D'Ombrain, J. Walker, H. Cannell, H Turner, C. T. Druery, C. Paul, H. Selfe-Leonard, W. Bain, C. Jeffries, C. E. Pearson. and H. Briscoe-Ironside.
Sir T. Lawrewce, Bt., Burford, Dorking, gr. Mr. Bain, showed a few plants in flower of Pentstemon Cobæa, a halfhardy perennial species so named from its Cobeea-like flowers. The spikes were upwards of two feet high, flowers pale lilac in colour with purple streake in the corolls. The plant has beon known long in gardens, but is not wildely cultivated. It is fagured in Bot. Mag., to 46\%. (Award of Mertl.
Mr. O. Otharaiv, Esq., River Home, Kemptun Court (gr., Mr. C. Last, was awarded a First-clams Certificate for which were exhibited ta fine condition. The thick leave of this plant are nearly if finches wide, and tho thick leaver of shown were about 2 foet mod hall long, daris groen in
colour, and suitable apparently for sub-tropical bedding, a well as for other purposes. An Award of Merit was given to W. Marshall, Esq. Auchinraith, Bexley, for Polystichum constrictum da.lk green from \(P\). aculeatum \(X\) angulare, a dense-growing dark \(P\). acu. variety, very erect in growth,
leatum than the other parent.
The effect made by a group of zonale Pelargoniums in sprays, from Messrs. H. Cannill \& Sons, tastefully put up with Ferns mingled, was very bright and distinct. Several new varieties were included, among which we
noticed an unnamed seedling, rich salmon pink with noticed an unnamed seedling, rich esa Marlborough, white eye, as being another seedling, is pale pink and white. Volcanic is one of another seedling, is pale pink and white. the largest and deepest coloured of the purple crimson section, and Owen Thomas,
(Silver-Gilt Banksian Medal.)
sea, again exhibited trusses of flowers representing varieties of their javauicum \(\times\) jasminiflorum hybrids of
Rhododendrons. These hybrid varieties are exceedingly delicate and pretty. Ruby was the darkest coloured, and partakes of Curtisii, one of the parents of this variety; parta roseum is a very pretty pale rose-coloured flower, rather large: Taylori is rosy-pink, and Favourite bright-rose: Princess Frederica is very delicate, and Minerva is similar Princess a little deeper. Maiden's Blush is just a pleasing flushed pink, but the latest variety is named Numa, obtained by croseing R. Curtisii of with R. indico \(\times\) javanicum. Numa has fine deep coloured flowers, after the style of Curtisii, and resembling in great measure the appearance of those of an Azalea, a habit obtained from R. indico \(\times\) javanicum, itself the indica var. Stella. The leaves in the case of Numa are much indica var. Stella. The leaves in the case but larger also than of the Azaleas. (Award of Merit.)

Among the collection of novelties from \(\mathbf{A}\). Brisfoe-Ironside Esq., Burgess Hill, were three blooms of a large Japanese incurved named Arona-blooms of good depth and plenty of fulness-colour buff, with light red shading on top side
of florets (Award of Merit). Bellina, a white flower, and of florets (Award of Merit). Bellow, appeared useful kinds for decoration purposes.
One of the most effective groups of cut Chrysantbemuns was one from Mr. Wythes, gr. to Earl Percy, at Syon House, which included upwards of one hundred flowers in eighty varieties. Many of the blooms represented good culture, and most of them were choice and good. (Silver Banksian Medal.)

Mesars. H. Cannell d Sons, Swanley, obtained an A ward
Merit for the yellow Jananese incurved Oceana. The floret of this variety are very loroad, and the flowers are medium
ize as shown, an d vely pretty. An excellent lot of blooms miscellanoous varieties was also exhibited by Messrs. CANNeLL, amongst which we may mention a few examples to be popular with many visitors, but fails to obtain awards, Altogether there were about eighty blossoms shown in this collection
A small group of Cbrysanthemum flowers from Mr. Pentney, gr. to Mre. Howard, Isleworth, contained some pretty flowers, and they were staged tastefully. (Bronse Banksian Merdal.)
Mr. Thos. 8. Ware, Hale Farm Nurseries, near Tottenham, showed a group of cut Chrysanthemums with long stems, and staged amid plants of Maidenhair Ferns. The group would have been more effective had the foliage been retained by the Chrysanthemum tems. Mr. Ware had also a plant
of Chrysanthemum, A. H. Fewkes, with three good flowers of Chrysanthemum, A. H. Fewkes,
upon it. (Silver Banksian Medal.)
Mr. Slogrove, gr, to Mrs. Crawford, Gatton, Reigate, was the exhibitor of twelve very well-grown flowers each of Thunberg and Mdlle. Mario Hoste. (Bronwe Banksian
Medal.)
Dr.
howed his WaLKER, 12, Lingield Road, Wimbledon, before by the National Cbrysanthemum Society, but no award was given on this occasion.
Mr. R. OwEN, nureeryman, Maidonhead, oxhibited a number of nuvelties, and obtained an Award of Merit for Vicar of Bray, an English seedling Japanese, good heavy bloom of old gold and dull red. Robin Adetr, spale llac coloured large Anemone, also received an award, at did Mre.
R. C. Kingeton, a very large fowered incurved variety of hright pink or roce.
Au incurved pink Japanese, named A ustine Anderson, was shown by Hespt Tate, Esq., Allerton Beeches, Liverpool. No award was made.
Mesars. B. S. Williams de Sons, Upper Holloway, London, N., exhibited half a dozen blooms and few plants of Philadelphta.
An excellent collection of Chrysanthemum blooms was put up by Mr. W. G. Gobrrty, Exmouth Nurseries, including numerous novelties. An Award of Merit was made to Cecil Clinton Chalfont, a full yellow-coloured Japanese flower, useful for decorative purposes. Annie Heard, a modium-sized white single-flowered variety, received a similar award. The white hirsute Mrs. W. J. Godfrey and other fine flowers were fncluded. (Bilver Banksian Medal.)
Half- dosen plants in bloom of Ewan Cameron shown by Mr. Goble, Walcot Nurmery, Ryde, Inle of Wight, seemed to indicate the usefulnese of this variety for decorative purposes. The flower are dingle, large, pure white, and very

Mrs. Jones, Sudbury (gr., Mr. Jones), staged a group of flowers of some of the single flowering varieties, and they were good and attractive, but the effect would have boy greater had a few Ferns been interspersed. The flown had
been well grown (Bronze Banksian Medal).

\section*{Orchid Committee.}

Present: Harry J. Veitch, Esq., in the Chsir, and Messrs. Jas. O'Brien (Secretary), A. H. Smee Sydney Courtauld, W. Cobb, E. Hill, T. W. Bond,
W. H. White, T. Statter, F. Sander, H. William T. B. Haywood, and H. Ballantine.

Sir Trevor Lawrence, Bart., Burford, Dorking (gt., Yr W. H. White), always foremost in exhibiting noveltien od both botanical and floral interest, showed Laddemanads trifolia, Rulfe, n. sp., a most remarkable plant of the growth length, and bearing thirty-three wax-like flowers of abertht orange colour, the sepals being tinged with copperbrome and the tase of the lip, which was distinctly throelobod, having a dark purple blotch. It is one of Mr, Lebmenn's Andean discoveries, and a plant worthy of attention (Pinetclass Certificate). Sir Trevor Lawrenoe also oxhibitod the handsome Cypripedium \(\times\) Pollettianeum, "Burford Baaty" (calophyilum \(\times\) oenanthum superbum), a variety far superior the original, and which received an \(\Delta\) ward of Merit.
Messrs. Jas. Vbitce \& Sons, Royal Exotic Nursery, King Road, Chelsea, were awarded a Silver Floral Medal for onad the best and most interesting groups lately exhibited. The most attractive feature was the gorgeous Lellio-Catllegax callistoglossa ignescens (C. Warsceericzii Sanderiana \(\times\) L purpurata), It is the beau ideal of a charming garden hybrid, its large lavender-tinted sepals and petals and rith purple-crimson lip constituting it a noble flower (Firstclese Certificate). Another fine plant which secured a Firsterlas Certificate was Cypripedium \(\times\) Milo grandis (conanthuin superbum of insigne Chantini \(q\) ), the massive apparanas of the fine glussy flower being rendered all the more striking if the fine glussy fower being rendored sepals. The pretty Lielio-Cattleya \(\times\) Semiramis (C. Gaskelliana \({ }^{\text {fo }}\), L. Perriniq) with fine soft rose flowers with purple-veined lip, recelvad Award of Merit. Among other good things in Mess Veiter's group were Leelio-Cattleya \(\times\) Decia (C. aurea Crispa of) with blush sepals and petala, and rich purple lip with silvery margin, and wonderful kaleidoscopic dighe of colour in the throat; Uattleya \(\times\) leucoglossa, the perty
 dite f), that charming novelty Epidendrum \(x\) Wallisioc-cliarwith yellow flowers having a conspicuous white labollim sisme grorl plants of M1ttonia spectabilis Moreliana, and number of rare Cypripediums, \&c.
Messts. F. Sander \& Co., St. Albans, also staged a ffective group of rare Orchids, which secured a siver bat sian Modal. Thoir most beautiful exhibit was Cyphipedium

Countess of Salisbury (bellatulum \(\times\) barbatum superad Sander's var.) and which (although the species emplos ohtaining it are simoilar to \(\mathrm{C} . \times\) Chas. Richman and ouil was a most delicate, charming and distinct flower, the ane enve heing douhtless due to the fine qualities of its parme It had the usual firm wax-like flowers of its class, the gove it colour white with innumerable dark chocolate doupper surface and a ray like flush of rosy purple ou the upp lessedt a mimilar rosy flush being over the petals, and in cerifase gree the lip. It was awarded a First-class C Catless \(X\) Another fine plant in Messrs. SANDER's groy of the C. L. Cold Miss Cla mith a coloring d the lip; and fine objects weve a pan of Habenaria Surane a pre with many spikes of its extraordinary white flowers, dilise of the new Anæctochilus Sanderianus with olvo the handion of various shades, netted with pale gold; \(t\) Cypripedium \(\times\) A. J. Herrington (Leoanum superbum); the neat and singular Saccolabium acutifitume of the C. hellinum class (Botanical Certificate); Cymbiaum Winnianum, the charming Trichopilia brevis with and ptis volute white labellum and Indian yellow sepals and pentim tarred with chestnut-brown; Bollea Roerzii,
 rich and variod collection of varieties of Cath House, Gat ming (gr., Mr. T. W. Bond), oxhibitod bhat protty and distinct hybrids raised in his gardens by \(x\) auresh, viz., Cattloya \(\times\) Lady Ingram (Eldorado \(x\) fragrant flowers, having pale yollow sepals and plobe In with golden yellow tube and rose-vined front ceilis (Lant a three-fowered inflorescenco; ceana \(\times\) Trianai), a delicately-tinted flower of much that of C. Lawrenceana, and of a sort il. Colio-Cattleya \(X\) purple and crimon in the tube; C. maxima peruviana \(\times\) L. C. \(\times\) elegais purplish plant with large rose-coloured lip. Each of the three received an Award Thos. Statter, Eeq., Stand Hall, Whitefiald, (gr., Mr. R. Johnson), staged a five group all being of of of varieties of Cattleya Dowiana \(q\) quality: Cypripedium \(\times\) Edwardij,
quality: Cypripedium
(Silver Banksian Medal).
(Silver Banksian Medal)
Messte. B. S. Williams \& Son, Victoria and Pa Medal for a neat-looking group of Orchids, in specimens of Pescatorea Roerlii rosea superbum, Catasetum \(\times\) splendens aure plecherianum, witiam vection of hybrid Cypite
pretty C. \(\times\) Adonis, with neat glosey flowers, C. insigne Wallacei, \(\mathbb{C} . \times\) atnandum, \(\mathbb{C} . \times\) Bartelii, and the fine white Celogyne Gardneriana Butanical Certificate)
R. 1. Measurzs, Esu., Cambridge Ludge, Camberwell (gr., Mr H. J. Chapman), showed Cypriperlrum \(\times\) Olemus (bella tulum \(\times\) ciliolare), Masdevalli: sbbreviata :und Pleuruthallis lungissima, the two last being awarded Hutanical Certificates. J. Gurney Fowiek, Esq,, Glebelands, Woodfurd (gr., Mr. J. Davis), showed a time inttorescence of the rare Cymbidium Traceyanum
F. W. Moore, Esq., Royal Botanic Gardens, Glamevin, Dubliw, ent Eriopsis rutidobulbon, a fine species with a dense raceme of orange and purple flowers and white labellum apotted with purple; the elegant jellow Spathoglottis ubescens (Botanical Certificate), and Phalrenopais denticulate (Botanical Certificate); and J. W. Swingunne, Feq., Comdean Hall, Winchcombe, Cheltenhana, sent two twinwhich the second flower is so near the base as to cause the whole to appear like two flower-spikes; one had singnlarly deformed aepals. Also a twin-flowered \(\mathbb{C} . \times\) Ashburtoniax
seid tu be constant. From Mr. Gulzow, Bexley Heath, said to be constant. From Mr. Gulzow, Bexloy Heath, came a few good)
Banksian Medal

\section*{Fruit Committee}

Present:-Philip Crowley, Fsq. in the chair ; and Messrs. R. Hogg, T. F. Rivers, H. J. Pearson, W. Wilks, J. H. Veitch, T. J. Saltmarsh, J.
Willard, W. Farr, F. Q. Lane, J. Smith, W. H. Divers, Go. W. Cummins, and J. Cheal.
One of the most conspicuous and handsome exhibits was
collection of 'eighteen Winter Pine-apples from H. M. Tar Quegn's Garden at Frogmore (gr., Mr. O. Thomas), from suckens planted on October 24, 1894 (Silver Gilt Kulghtian Medul)

Mr. Bmith, gr. to the Earl of Rosesery, at Mentmore, showed three excellent bunches of Chasselas Napoleon Grapes, from Vines grafted on Muscat of Alexandris. In appearance and flavour these Grapee were very remarkable (Cultural Commendation)

Soedling varieties of Apples were exhibited in several instances. Mr. \({ }^{\text {L }}\). E. Thomas, Berkhamated, hall a tolerably bigh-coloured fruit מamed Eureka, of moderate size, presumably intended for dessert purposes. A smonth yellow Apple of good size, known as Ivanhoe, was exhibited by Mr. A. McKav, 63, King gtreet, Dunstable. Anotber variety was rom Mr. T. Spencep, Goodidh Court Gardens, Ross, and Eruisborough,
Messrs. Rivers \& Son, Sawbridgeworth, again showed Apple River's Codlin, a dessert fruit, and another one for kitchen use, known as Rivers' (St. Martin.
\(\Delta\) rather hard-looking russety \(\Delta\) pple, known as Reinette de Damson, was exhibited by Messrs. Veitch \& Sons, Royral Exotic Nursery, Chelsoa, and a fairy
kitchen use, named Fraise d'Hoftiger
kitchen use, naned Fraise d'Hotnnger. A dish of sm: tll purple \(\mathbf{I}\)
shown by Mr. O. Thonas.

Black Hambro Grapes, grown and ripened in the open air, were from the Rev. J. R. Domecow, Menbury, Chard. The berries were coloured, but were not very awect. (Vote of Thanks.)

A collection of Apples and Pears from Jersey were sent by Mr. H. Breker. The few Pears were good, but the Apples were by no means remarkable. (Silver Banksian Medal.)
An extensive and conspicuous callection of Apples and
Pears was shown by Mr. W. H. Divers, gr. to the Dure or Rutland, Belvoir Castle, Grantham. About seventy dishes of Apples and thirty of Pears were included, the quality being generally high, especially for the district. !Silver Gilt Knightian Medal.

A large, rather pale-coloured, culinary Apple with large open eye, named Jonkinson's Seedling, and another one known as Dewdney's Seedling, were hown, and the Committce dosired to see them again.

\section*{SOUTELAMPTON.}

Novmaine 5, 6.-The Royal Southampton Horticultural Society had ite annual autamn how in the Victoria Hall on the dates given above, which was, in maay repecte, above the average of these shows.
The groupa of Ohrysanthemums staged for effect were very auperior, and in this class Mr. O. Horsay, gr. to J. E. E. Rerwhar, Eaq.. Elmfield, Southampton, took the first place; and Mr. J. Amys. gr, to the Hon, Mrs. Elinott Yorieg, of Hamole Cliff, southampton, the 2nd. Messrs. H. \& J. VARe, Chilworth, and Mr. A. Bnowr, Hill Farm, Southampton, were exhibitors staging well-grown examples of leading varieties.
The groups of miscellaneous plants undoubtediy formed a very plensing feature here. Mr. E. Oarr, gr. to W. A. Pichett, Keq., Fair Oat Park, Bishopetoke, came in a good let, with a
group which left Jittle to be denired in the way of arrangement.

\section*{Cut Bloomg.}

These formed an extenaive part of the show, and formed, as uound, it most attractive portion. For eighteen Japaneee varieties, distinet, Mr. Ivelamield was lat with a good set of
blooma Mr. P. Pentord, gr. to Sir Y. Titzwigram, Bart,
M.P., Leigh Part, Havant, wae 2nd. In a mimilar clase for incurved varieties, Mr. J. \(\Delta\) Gste, Havant, was the winner of the lat prize. For twelvo Japanese varietion, diastinct, Her Majesty the LUeEN, Ouborne, Isle of Wight, and Mr. PkN Fond, were placed expual let'd, so clooe in pount of merit were the two collections.
An interesting clasy was that for twelve Japanose varietion the blooms to be cut with long stems furniehed with foliage let, Mr. Carr, with a very worthy oxhibit.
This list does not exhaust clames that were provided for cut blooms, of which, it will suffice to say, that Memars. AGATE, Pempord, and Inglefield, ecured the higher awards.
Frait was capitally shown, eapecially Grapes, which were very fine indeed. Mr, Sanders, Andover, and Mr. T. Hall, gr. to Sir S. Montaque, South Stoneham, were among the more succesaful exhibitors.
Mr. Miles, gr. to W. Perizims. Enq., Portewood, Southampton, ataged really handsome deseart and kitcher Applea, wianiag the leading prize in each clen.

\section*{HANLEY CHRYSANTEEMUM}

Novemars 5, 6.-The thirteenth annual exhibition by the Hanley (Staffu.) Chryaanthemum Society wat opened on Tuenday, Nov. 5. In extent and in the quality of the exhibite also, the show wat equal to any that have been previoualy held. The Victoria Hall (an excellent building), wat well filled, and the hon. secretarien, Mesart. Joneph and Arthur Kent, had arranged everything in a aatisfactory manner. It was thought mome ehort time aince that the society would have to dinsolve through insafficiency of financial means, but the exhibition jutt held proved that if the necenary aupport from the townapeople be forthcoming, there need be no doabt as to the auccess of the mociety in promoting good exhibitions.
There were several exhibits for groups of Cbrymathemums, and Mr. J. F. Madpocr, of Aloggar, who took leading position in the clase for a group arranged in a memi-circle, was very commendable. The best group of miscelleueous plants apranged with a view to producing the beet effect was from Mesare. Jesermson * Sows, zurserymen, Newcuatie-under-Lyme, who, by the proper ase of Orchide and Ferne, made a very attractive group.
Mr. J. MOPHill, Superintendent of the Queen's Park, Lougton, had the best half-dozen plants of large-flowering Chrysanthemum", distinct varieties, and other similar classes.
Cut blooms of Chrysanthemums, were shown in compara. tivaly good number, and the quality was'quite equal to expectations. The beat tweaty-four incurved, in twelve varietiee, were exhibited by Mensri. J. A. Panson a Soma, Chilwell Nurseriew, near Nottinghama and Mr. J. MoPHaIL was the winner in the class for an equal number of Japanese blooms.
Mr. McPrail had the beet twelve incurved blooms in dietinct varieties; and the beot Japaneso blooms in twelve distinct varieties were from Mestrs. J. R. Pearson \& Sons. There were clasees also tor amateura, and local single-handed
gardeners. Miscellaneous competitions included clasees for floral arrasgemento, planta for table decoration, Primulas and other plante, and Grapes.

\section*{HEREFORD FRUIT AND CHRYAAN TEEMUM.}

November 5, 6.-Tair Society held it annual show on the above daten, and it mast be gratifying to all intereated in the Society to witness ite yearly increased auccess, both with regard to the namber and quality of the exhibits, and it financial condition. This matiafactory atate of thinge may be rightly attributed, in a great measure, to the ener. getic and all-round good management of Mr. Oagh, Hon. Sec.
Apples and Penra were, as is uaual, the leading feature of the show, and when it is said that about 3000 disbes of these fruite were tabled, most of them being remarkably good, and not an inferior one amongat them, an idea may be formed by the reader of the importanoe of the exhibition. An intereating exhibit was gisty dishes of cyder Apples from the Pomological Society of France; thase did not, however, compare favourably, either in point of colour or size, with the same type of fruit shown by Mr. J. Watiliss and Mesars, Crington \& Co. The above French Society meat also ammples of bottled eyder.
There were three entriee for fifty diahes of Apples, diatinet. 1st, Mr. J. Watkiws, Pomona Farm, Hereford. Amongst his beat dishes were Peasgoo l's Nonsuch, Blenheim Oramge. Gascoipnes Seedling Byford Wonder, Striped Beaufin, Washington Rmperor Alerander, and Winter Nonsach. Memers. ton, Rmperor Alexandor, were a good 2nd, having Allriston, Cranston a Co., Hereford, were Lane's Prince Albert. Biemarelk, Peaggood's Nonsuch (very fine), La Pippins. Schoolmantor, and Royal Jubilee, King of the Pippins, Schoolmantar, and Warner'a King amongst their best dish
gro to Enrl of Covempar, Croome Court. T. Wright, gr. to C. LeE CAMPBELL, Keq.e Glowston Court, Rowe this was also C. Leod collection; some of the best divhes were Winter Non\({ }^{\text {a good }}\) gooll auch, hane a Pricia. 2nd, Mrs. Evixa, who bad good dishes Cax't Oradge Pippia. 2nd, Mrs. of Wamar'in King, Mere de Ménget, Cox'o Pomons,
Mr. Ward, gro to Lady RMLLY Folery, Btoke Railh.
wae the only exhibitor. His bent dishem were primantom Duchosa, Doyeuné du Oomion, Napoleon, Glou Moronus, Heurre Diel, Ylemind Beauty, te.
Twelve diebee of Peara - - Mnt, Mr. Painter, ©r. To Mer. Wisl. \(1.1 \Delta \mathrm{Ms}\), Rorhford Houne. Tenbury, buving rout dimben of Lowive hompe of Jermey. Doyenne du Comice, lleurre Clantpean, \&:

Applea: Twalve diuben oulinary nud (welve domant int. Me. Arindrod, Er. to P. Y. Pwiluse Miw., Whatheld, who had fine dithes of Gnsooigne's Beetliak, Peragcod's, Cos'e Pomona, Riboton Pippin, Ooz's Orange Pippin, da. ; 2nd, Mr
 Mr. Willimma, gr. to Bir Joskpa plytucy
For the best dish of cuhmary Apglen in the nhow, Mewres. Cranstor \& Co. were let, wilh a grand lot of highly coloumed Peasgood's Nonsuch; and for the beat dimh of dessert A pplea, Mr. Whaler wou with a fine difh of Cow'p Orange Pippin.
For the boot dieh of Peare, J. W. Palmen, Eng.. A Ileston's Hor the baet dieh of Rears, J. W. Palmea, Ming.. Ayleston'u or bent flavoured Pearn, wilh Thompson's.
There wore numproua mallier clamon, which wiepe well Alledt. as were almo those devoted to larmern. Apecinl prises were elto numeroun.
Graper wera fairly well nhown, mome of the bhack varietien
being very good. Mucala, however being very good. Muscala, however, wore not first-rate, many of them beng shrivelled, owing doublloms to the hot, dry season; and othem were far from being woll ooloured.
For a collection of six kinde of fruit.-1 ot, Mr. Haprio, Kr. to Lady H. Som हnskT, Kantnor Caatle, Ledbury: 2nd, Mr. Grindrod: 3nd, Mr. Williama.
Three bunchee of Grapes, Gron Colmap.-1st. Mr. GrinurRod: 2nd, Mr. S. T Whagr; 3rd, Mr. Williams. Thi wel 4 good cluss.
Three bunches of any othep bleck Grape, -list. Mp. Wriayt, with good Black Alicanten; 2nd, Mr. W\&RD, with mice Alnwick Soedling.

Three bunches of Muscat of Alexandría. - let, Mp. Frogett, gr, to M. Harmila, Eeq.: 2nd, Mr. Ward; 3nt, Mr. Williams.
Three bunchee of may other white Grape. -1ut, Mf. Williame.

\section*{Chayantafmums}

Out blooms were remarkably well ahown, and better than they have previoully been eeen at Herford. Groupe, however were not no numerous na at previous shown; but the one which took the let prize, namely, one baving a apace 12 feet by 7 feet exhibited by Mr. Williams, gr. to Sir J. Pullev, wae perfect in every way. The chies priza-winnorn for cut blooms were Mr. Lockyer, gr. © C. HANBCRy, Knq. Pontypool Park; Mr Robinson, gr. 10 K. W. D. HAHILY: Ent. ; Mr. Whliama, Mr to General (inhathitr. Trew yn, Aberkavenimy; Mr. Davis, gr
 mercial 8treet. Heroford, and Mr. Whitime. Whito CromNursery, Hereford, had beautiful wreatho, crowen, Ac, comsposed ebiefly of Orchids, Rucharin, Callas, white Chrysanthe-
mums, and Oarnations; while Messrs. Clibran 80 , Altriacham, ehowed baxee of cut Chrysanthemun, principally new varieties, fine in oolour and form. Thos, Coomber.

\section*{WOLVERHAMPTON CHRYBANTHEMUM.}

Novembar 6.-The third ahow of thi Society wan opened by the Mayor, C. T. Mander, Eiq, ia the Drill Hall, Wolverhampton. The ahow was a great advance upon the previous ones, over 1000 bloom being shown, in addition to the numeroan and most effectively arranged groupt of plante.
Group of Chrymanthemum planta, quality of bloom, variety. and general effect to be considered, not to exceed 70 equare feet of apace, and an edging allowed: 1st, Mise Praryy, The Werge, Wolverhampton (gro, Mf. O. Bradley). This group was tastofully arranged, and contained a background of Kentias and Ramboos, with edging of Panicum variegatum, small Ferns, and Selaginellas. A monget highest bloomq were Edwis Molyncax, Jempe Delaux, Viviand Morfl, Suatlower, Etoile de Lyon, W. H. Lincoln, W. Holmes, Mra. Payne, W. Seward ; and goal incarved of Lord Alcester, Empress of India, Empress Eugénie, Mrs. R. King, Violet Tonalin, Baron Hirsch, ace. 2nd, H. Entiland, Remi Hill View, Walsall (gr.. Mr. T. Southall), whoe group showed good taste in arrangement, and contained good specimens of Bunflower. V. Morel, ment, and contained good specimens of Suntlower, Mry, Mes, Ed, Motyneux, Colooel Smith, Mrs. Alph
Beckett, W. H. Kincola, Jules Tousmant, Ac.
For an aroap of Chryanthemums and miscollsoeone plante, srrangement, itylo, and gewaral effect, to be considered. - Let, S. J. Mander, Eaq., Wightwick Manor (gr., Mp. G. A. Biwhop) with a prettily-arranged group, contaitaing good Kentia Bolmoreana, Cocos Wedelliana, well-coloured Crotons. Thompsonii, Heathii, elegans. caudidus, tortilio, Rvansiensie, and Wilhinmel, Rulalia japonica, Cockscombe, Roman Hyacinthe, and Chrysanthemums Florence Davin, Sunfower, V. Morel, Ed. Beckett, and othern: Mien Prazer wes 2nd. This group contaised Keotia anatmilis, Cocos, Culadium argyrites, mand Orotons. Ixoras, and good plants of Chrysanthemum W. H, Lincoln, Avalanche, Blush Queen, to
Beat three plante of iscurved Chrysanthemums, 1st, Alde man Teompson, Hill View. Walsall (gr., Mr. C. Raffall), with good Duchees of Teck, Mr. Bunn, and Barbara.
Twenty-foup blooms of incurved Chrganthemums, not fewer than eightoen distinot varietien, 1ot, C. P. NoELL, Req.o Bell good Allred Salter, Queen of England Prince Allred Emprea

India, Lucy Kendall, Miss M. A. Haggas, John Lambert (very fine), and other good old and new varieties; 3nd, sir C. H. Rouse Brouarto r, Bart., Ludlow (gr., Mr. C. Bellis) who staged excellent Lord Alceater, John Lambert, M. Bahuant, Nil Desperandum, Empress of India, W. Carpenter Brookleigh Gem, Baron Hirsch, very fine yellow Charles H Curtie, \&c.
Twenty four blooms, Japanese, not less than eighteen distinct ratieties, lat, H. Hrance Hayeurst, Esq., Overley Wilingor Balop ( Mr. S. Bremmell), who staged excellent Wellingto, howers of Viviand Morel, Amos Perry, W - Seward, , Newet, Sunflower, International, fine creamy-white, \&c. G. W. Newet, Sunflower, International, fine creamy-white, \&c., 2nd, Sir C. H. Rouse Broughton, Bart., whose stand contained fine blooms of Madame Carnot, Duke of York, Van der
Heede, C. Davis, Louise, Pallanza, Sunflower, Mrs. C. H. Payne Heede, C. Davis, Louise, Pallanza, Sunflow
Viscount Hambledon, and Richard Dean.
For twelve blooms of incurved varieties, distinct, 1st, Lord Wrottesley, Wrottesley Hall, Wolverhampton (gr., Mr Simpson), who staged excellent blooms of Lord Alcester, Prn cess of Wales, Prince Alfred, John Lambert, Baron Hirech, Flora Macdonald. Empress of India, Brookleigh Gem, \&c Sir C. H. Rouse Brovarton, Bart., with John Lambert, J Doughty Jeanne d'Arc, Baron Hirsch, Mrs. Heale, Nil Despe Doughty, Jeane den randum, \&c. Eleven competiors entered and the contest was strong throughout.
Fortwelve blooms of Japanese, distinct, 1st, A. C. Kerrison Esq., Pipe Hall, Bilston (gr., Mr. H. Tantrum), who showed good blooms of C. Davis, Beauty of Exmouth, E. Molyneux \&c. ; 2nd, Lord Wrottestey, with good Etoile de Lyon, Thomas Watking (a good yellow), Louise, J. C. Schwabe, M. M Hoste, \&c.
Hor twelve blooms of the Rundell family.-lst, JoHN Por twelve blooms of the Rundell
Barrett, Esq., Bury St. Edmund's (gr., Mr. A. Bishop); 2nd, Lord Wrottesley
For twelve Anemone Chrysanthemums, only one com petitor-Mrs. Swindle, The Quarry, Stourbridge (gr., Mr. T wetitor-Mavis).
For six bunchee of Chrysanthemums.-ist, Mrs. WiaHt Boycott, Rudge Hall; 2nd, Mrs. SWindee.
Local classes for Exhibitors to reside within Wolverhampton,-For twelve blooms, incurved, 1st, Lord W rottesley.
For twelve Japanese blooms, 1st, A. C. Kerrisox. Exq
For the lady's sprays of Chrysanthemums, 1st, H. EsGland
Eeq ; 2ad, Mrs. W. Boycott
For the must artistically arranged vase of Chrysanthemums, 18t, Mr. J. Hueres, Tettenhall.
For the moat artistically arranged baket of Chrysanthe muma, 1st, R. Bubrellu, Eaq.

Premier ineurved, John Yambert, seat by R. H. LLoxd, Isq
Premier Japanese, Madame Carnot, very fine, shown by R. W. D. Hablet, Egi

For three planta, Japanese varieties, 1st, Alderman Thomb son, with Ftoile de Lyon, carrying thirty-five pood blooms, Florence Davis with fourteen blooms, and Mons W. Holmes 2ad, Mrs. Earp, Dunstall Hill, Wolverhampton (gr., Mr. Hugh Jones).
For one specimen Pompon, 1st, Mrs. Earp, with finebloomed Sour Méanie: 2nd, Alderman Thompson
For twelve Chinese Primula, 1st, Miss Perry.
Six zonal Pelargoaiums, 1st, Miso Perry, with well flowered Colonel Seeley, Edith, Little Ajıx, Hayne's P nk 2nd, S. T. Mander, Rerl., with International, Charles Mason and Mrs. Davidson.
For six table plante, 1st, S. T. MANDER, E:q., with six well coloured Crotons: 2nd, sir C. H. House Broughton, Bart (er., Mr. C. Bellig), with nice Aralia Veitchii, and finecoloured Crotons

Frut
There was a very fine display of Grapss, Apples, and Pears. In the clase for two bunches of Black Grapes, J. Harris. Esq The Hayes, Stone ( \(\mathrm{gr}_{\mathrm{o}}, \mathrm{Mr}\). Bates), was 1st, who staged grand bunches of Gros Colmar
For two bunches of White Grapes, Mrs. Eirp was 1at, with good Muscat of Alezandria.

\section*{Vegetables.}

Special prizes were offored by Mesars, WeBr \& Sons, Stourby R. Tor Lhoyd. Enq
Amonget the local exhibitors who employ only one gardener, Memars. Onioxs, of Cannock Road, Cave, and Bamber, wer all successful
In the non-competitive section. Measa. Deverill staged a fine collection of their famous Onions.

\section*{Migceilaneoug.}

Mr. John E. KNiant, nurseryman, Wolverhampton, put up a fine group of Palms, Araucaria, Chrysanthemums, Crotons, Ferns, Ficus elastica, and wreaths; also a collection of vegetables, which included some fine roots of Mangels growa ia the district by Col. Cortor, yielding 50 tons per acre. Messra. TOM B. DobBi \& Co., Queen Street, Wolverhampton, put up a seasonsble group of hardy shrubs, with statuary, Palmy, sc., and a fine collection of vegetables grown from their teeds. Mr. Jons Watikiws, of Hereford, staged fifty disher of very fine Apples; and Mosors. Rivens \& Sows, Sawlocal exbibitor, forty dishes of Apples and Pears. Amongst local exhibitors, P. BAmDERS, Req.. of Oalrem, Woiverhampton, sent twenty-fous dishe of frait: and Mr. STock Hapt. of was centre of ine Pitmaston Duchess Fears. This table wasition to the of reat intereat, the fine colour of the fruit, in addion to the size, made rany exclaita: "With such Apples and Peava as theee we shall not want fruit from Americn," ke.

\section*{CIRENCESTER CHRYSANTHEMOM.}

November 6. This bhow took place in the Corn Exchange on the above date, and was in all probability the best ever held by the society, though it an not appear to be supported by the townspeople an it deserves to be-a fate usually experienced in purely agricultural districts.
There were two open classes only, the one for six specimen plants of Chrysanthemumg, the best coming from Mr. H. R Saunders, gr, to James Taylor, Esq., Rendcomb Park, who had admirably grown and flowered brish plants of John Shrimpton, Edwin Beckett, and Source d'Or; and of incurved, Mrs. Dixon, White Venus, and Mrs. Haliburton, this being the only exhibit.
The other open class was for thirty-six blooms, eighteen ncurved and eighteen Japanese. Mr. Geo. Price, gr. to Mrs Bulley, being the only exhibitor, with fine examples of Lord Alcester, Mrs. R. C. Kingston, Baron Hirsch, Violet Tomlin Golden Fmpress, Madame Darier, \&c., among the incurved tolden Kmpres, Madanese Col. W. B. Smith, Eds Prass, Vivind More Molyneux, Duke of York, Miss Doroth Shea, Charles Davis, Rose W ynne, \&c.
Shea, Charles Davis, Rose W ynne, \&c.
Groups of Chrysanthemuma made a very good feature, and bging relieved by the addition of foliaged plants, lessened the effict of stiffness usually seen, but there was too much crowding. The best came from Mr. W. Larner, gr, to JoHn Hrde, Esq., Southleigh. One other group set up by Mr. D. Elkins, gr to A. CATOR, Esq, had to be disqualified as containing plants of Chrysanthemum frutescen, but an extra prize, equal to the 2nd, was awarded to him. A class for a smaller group brought several pleasing exhibits from local growers. Mr. Kirby, gr, to H.F.GARE, Esq, the Hon Secretary, taking the 1st prize. Some fairly good specimen of plants of incurved and Japanese types were staged in their several classes.

\section*{Cut Blooms}

In the way of cut blooms, the beat eighteen Japanese came from Mr. D. Elinins, A. H. Neve, Charles Davis, Sunflower, W. Seward, Boule d'Or, and others, being in excellent charac ter; Mr. G. Price was 2nd. With twelve incurved, the same exhibitors were severally 1 st and 2 nd . Sixes of each were also good. Mr. Price had the best six blooms of an incurved variety, showing Violet Tomlin in excellent character; Mr. Humphries, gr. to J. L. Buraess, Esq, following 2nd, with Bapon Hirsch, which promises to be a very usefal incuryed. Mr. Price also had the beat six blooms of a Japanese variety, having Col. W. B. Smith in splendid form; Mr. Elifins cuming 2nd with Mdlle. Thérèze Rey.
Sowe good blooms of Anemone-flowared types, as aleo Pompons and singles were staged; of the latter, Mury pretty.
l'ases and Eipergnes of Chryannthemuma relieved with foliaga mide a charming feature, Mes. Sarf, leading the way with very tasteful arrangemonts. Baskets of blowms were also very pretty, and these formell of autumn berries and folinge. shown by children, delightfinl. All these were instructiva ohject lesens in the way of home decoration.
Grouns of stove and gresnliouse plants, Primula sinensis, double and single Mignonette, zonal Pelargoniums, Poinsettias, planta for tab'e decoration, and othar subj xets lent variety to he show, and extended its intere \(t\).

Fruit also found a place in the schedule, and vegetables also. Mr. Saunders had the best three bunches of white Grapes Mr. Price taking the lat prize with the same numbir of black. Mr. T. Arnold, gr. to Carl Bathurst, was lst for gix varieties of dessert Apples, as also of culiaary; and with the same number of Pears, showing very good samples. The bsst collaction of nine varieties of vegetables came from Mr. J. Baker, gr. to Col. Porter. Nor are the cottagers forgoten, for classen for Chrysanthemuma, and also for vegetables were provided for them, and they exhibited in a very creditable manner.

A very interesting group of Cuniferous plants, also a fine and varied collection of Apples, were shown by Messrs. J. Jef Feries \& Sox, Cirencester. Mr. O. OrPET, nurseryman, Dyer Street, had a collaction of stove and greenhouse plants. Mr H. DYER, Springfield, also had a collection of Chryanthemum of an attractive character.

\section*{HITCHIN.}

November 7.-A auccenfal pxhibition of Chrysanthemum and fruit was hell in the Corn Exchange at Hitchin, Herts, on the above date.
Among the best thinga shown were the groups of Chrysanthemum plants from Mr. J. F. Parsons, gr, to W. Spencer Esq., Codecate Lodge, Hitchin, 1st; and those from Mr. Prisman, gr. to S. Lucis, Esq., Hitchin, 2nd. The plants of the first named exhibitor were very good, and possessed of fine large flowers.
Mr. W. Springham, gr. to J. H. TUKE, Esq, Hitchid, had the beat specimen plants.
Groups of miscellaneous plants formed a pleasing and desirable feature of the show, and the highest prize fell to Mr J. F. Pansons, for a creditable arrangement, in which Palms, Orchide, and Salvian, played the chief parts.
Cut blooms were numerously shown in competition, and the quality generally was good. P. Bosanquet, Faq., Paffield ( \(\mathrm{Rr}_{\mathrm{r}}, \mathrm{Mr}\). J. Turk), was 1st in the class for twenty-four Japanese varietien, distinct, hil fiowern being large, richly coloured, and consisting of leading waristies; F. FEWWICK
 artless), was 2ad.
For twelve Japanese varieties, M. Prior, Req. Mama House, Knebworth (gr., Mr. Pateman), took the leadigg prive good set.
For twelve incurved varieties, distinct, Mr. Harruss wa 1st, with creditable examples. For six incurved, one ratiety Mr. Hartless won with really good specimens of In Alcester.
White-flowared Japanese varieties were well represeated in the class for sir, one variety, and Mr. J. F. Parsoms we with Mdlle. M. Hoste
For any coloured variety, Mr. TURK stagel Suulowar in capital condition. Pompons were best shown by Mr. Trax. Table decorations, of which the Chrysanthemum formid thy chief feature, were abundantly shown, no fewer that in tables being set out with them. In this compotition, hu
C. E. Foster, Bancroft, Hitchiv, was deserrelly amel C. E. Foster

Some excellent fruit was noted.

\section*{ASCOT.}

November 6, 7.-The grand atand of the Areot racecourse was chosen as the place for holding the Chrysanthemum exhibition, which was abont the average of uch shows as regards the quality of the various exhibite. Cut blooms were, as is now aund, the more important mection so far as attractivenem goen.
For eighteen incurved and eighteen Japanase rarioticm distinct, for which a Challenge Cup was offered in addition to a money prize. Mr. W. Lane, gr. to Miss J. D. Santi, King's Ride, Ascot, was placed lat for substantial shapk blooms in both sections ; and Mr. F. J. Paul, gr. to Ma Bowring, Forest Farm, Windsor, was a close 2ad.
For eighteen Japanese, Mr. A. Sturt, gr. to N. L. Corima Esq., Round Oak, Englefield Green, Kgham, was easily la with the best bloo ns in the show; and Mr, E. Johnson, gro w A. Gillilatt, Esq., Duffield House, Btoke Roges, Sloukh was 2nd.

For twelve Japanese varieties, 1st, H. White, gr. to the Marchiones Covynowam aseot, and Me Tarmer, H. P. Leschalles Hyams, Windlesham, and.

Eur siz Japanese, Me. Hawthorne, ge. ts St. Grosaris Scanol, Ascot, wod. Mille. Mirie Hoste in the chass for ix Japanese, any white variety, placed Mr. E. \$mes, gr. Captain Hanbury, Ascot, in the lat place; as did Virial Morel for Mr. Farmer, in the class for six Japaraw of as Morel for Mr. colour.
The best twelve incurve I Japnnese blonms were those stagit by Mr. F. Paut, and the incurped blooms, it may be mid made a good display generally.
For eighteen distinct varieties, Mr. F. J. Piut wis an 1st; Mr. A. Sturt being 2nd.

In the class for twalve bloons of incurved varieties, the th prize fell easily to Mr. FАRMer; and for six ineurved, th highest aw ard went to Mr, Brro for bloums of Lord Wuble in excellent form.
The trus reflexed varietios of Chrysanthemums wir rel shown by Mr. W. Neate, gr, to Miss Mackab, suang who was placed lat for twelve blooms, distinct ; Ms. E. . being 2nd. Mr. E. R. Smee had the beat six varietied mixt ssction; and he was also th

\section*{Anemone-flowered varieties.}

The premier Japanese blooms ware those of Mulana cun and C.H. Curtis, both of which were shown by Mr. PLUL, very fine examples to3.
Plants were good, and Mr. Hawthorere was let to to trained specimens; and Mr. Neste was lat fot plantrgen as bushes; also for four Pompons. For a group of Ohry mums, Mr. Lave won with plants carrying extre blooms; and Mr. Haw rHonne was 2nd with a gre
arranged, but which lacked quality in the flowers.

Fruit and vegetables were very well represented by a nulio of horticulturists of the district. Messrs. J. STA arranged an interesting group cousistiag of mindale, ha plants. Mr. Thorne, gr. to Maj jr Jotcer, Sunningdable dili pleasing group of choice miscellaneous plants, creditable ith to himself as cultivator, and an scquisition to the exaibin

\section*{BRIXTON, STREATEAM, AND CLAPGAM.}

November 6, 7.-This old-eatablished aciets \(\omega\) not been left behind in the advance made years in the growth of the Chryssnthemum, the other hand, it enterprise displayed

\section*{and the practical knowledge of \(W\). Roupell,}

Hon. Secretary, have been pro
resuitn. It would be scarcely possible the
better show around London outside of that held in the capacions hall at Strestham, 8 which is well aited to the purpose, lighted, lofty, and otherwise commodiout.
Plant Groups. - These were divided from ese prize was won in fine style by Mr. Poaltom,

Carcer. Req., withpleasing harmony of white, pink, yellow. and bronzy-red; the flowerg also were of extra good quality. and zuite fit for the exhitition board. Mr. Muraell, gr. to and quite fit for the exhitition board. Mr. Mursall, gr. to
Mrs. Burtor, who was let last year, staged even better than Me did then, but he was fairly bsaten by hia rival. The great be did then, but he was fairly bsaten by his rival. The great
feature of this group was the dwarf growth of the plants, those feature of this group was the dwarf growth of the p
in the front being little more than 1 foot in height.
For six trained specimens of Japanese, Mr. Weston, an old exhibitor, g'. to D. MARTINEAU, Esq., Bhowed a fine set bearing a profusion of well-developed blooms, his best being Margot, Mise Watson, Madame Rendatler, Madsme Levid, Marg La Triomphante.
With six reflexed or incurved, Mr. Cherry, gr. to Mre. GABRIEL, showed well, and reocived the premier award, Glbriel, show his best being Mrs. Geo. Rundle and Mrs. Dizon,
two of his best being Mrs. Geo. Rundle and Mrs. Dizon,
The best six Pompons were from Mr. OrFRry, also the rarieties of Cedo Nulli standing him in good stead, also Commander Schneider and Frémy. Mr, Wraston wes a close 2ad, Black Douglas being one of his best.
Mr. Swain, gr, to E. JoNFs, Req., was 1st, for three pyrnmids or standard of Pompons, showing all of the latter style and of the Anemone section.
Mr. SWark was also lat for three plants of large-flowered Mr. SWAIV was also lat for three plants of large-fowered
varietieg, his plant of Viviand Monel being of rich colour and with fine blooms.
An excellent class was that provided for twelve Japaneze, in \(4 \frac{1}{3}\) inch pota, each plant to carry one bloom, this produced a good competition. Mr. T. Stevens, gr. to B. F. Smitre, Esq., was lst; and Mr. Murselt a close 2nd; the beat varieties being Viviand Morel, Oomto de Surani, and Chas, Davis.

\section*{Cut Blooms (Japznese)}

Mr. Howe, gr. to H. Tats, Esq., showed a grand stand of twenty-four blooms, of large size and very fresh, and uniform throughout, the best were Col. Smith. Viviand Morel, Ed. Molynour. Eda Prass. Chas. Davis (extra), Colonel Chase, Marie Honte, Visconnteas Hamuledon, H. L. Sunderbruck, and a perfect bloom of Lord Brooke. Mr. Munsell followed with
another excellent boavd, Mr. Beward. Deail de Jules Ferry, and another exoellent boavd, Mr. Seward.
Excelsior here were of special note.
Mr. How w was also lst for twelve blooms on long stems as Rrown, he staging again some fine flowers, Lady Sanders, a broad petalled pare whita, wan extra good. Mr. Mursell again followed, and that quite closely, for 2nd place. In both instances the foliage was good, thus adding to the effect.
For twelve broad-petalled varieties, Mr. Howt was placed lat, with an admirable lot of flowers. the hast of which were Colonel Smith. Lord Brooke, Mrs. W. Howe, and Lonime ; Mr. STEVENS
Lord Brooke
For aix of any white varicty, Me. Mursei, was a worthy
1st, with almost faultlesa flowers of Madame Thérese Rey, very pure in colour; Mr Howe being 2nd, with Madame Carnot. For siz of any other colour, the positions were reversed, Mr. Howe winning with a splendid set of Lord Brooke.
In elass for twelve varieties, Mr. Stevers won with an even stand, the best being Madame Hoste, Sunflower, and Charlen Davis: Mr. Poultor, followed up strongly \& ir 2 id place, Louise and Sunflower being conspicuouy.
Incurv-d, \&c - The \(b\)-st twenty-four incurved, very uniform, and of medium size and fresh, came from Mr. Strff.ss, Baron
Hirsch. Princesg of Wales, and Empress Euginie being the best blooms; the 2nd prize lo \({ }^{+}\), from Mr. Roff, lacked size
Mr. Stevens was alvo 1st for twelve Anemones, with a strong board, the best being Delaware (extra). Nelson, and Judge Benedict; Mr. Fulbrook, gr. to B. B. BA Rer, Esq, also Judge Benedict; Mr. Fulbrook, Cr . to B. B. Bak
ataged well, his best baing Lady Margaret and Gliick.
Mr. Wreston had a fine dozen trebles of Pompons, very bright and well set up, not, too, in a formal manner; Mr. Milsom, gr. to G. A. PAYNE, Esq., following closely, some of the flowers being over-blown.
A keen competition was evinced in the clase for twelve blooms, any varieties, open only to single-handed gardeners or amateurs, eight lots being staged. Mr. Farron, gr, to \(G\). Re Preplfss, Ksq., won with a fine dozen, proving him to be quite capable of entering the open classes; the best here were Cham. Davis, Viviand Morel, Rose Wynne. Mrs. C. H.
Yayne, and Silver King. Mr. W. Smith, gr. to thg Rev. S. N. Payne, and Silver King. Mr. W. Smith, gr. to the Rev. S. N.
Ranson, showed well for 2nd place, the blooms being bright Ranson, sh,
and even,

\section*{OTERR EXHIBITB.}

At this show these are always an important feature. Ferns are erpecially good, the 1st prize going to Mr. Hill, Er. to robnst health; also Gymnopramma schizophylla gloriosa, \(G\). Laucheana, and Adiantum Farleyense. Mr. Jones, 作r. to N. N. Sumpwood, Esq., who followed, had Gymnogramma peraviana argyrophylla and G. schizophylle gloriosa, both in fine Condition.
Orchids are also shown well, Mr. Ranson having a strong hall-dozen, Vanda Sanderiana, Oncidium varicosum Rogersi, and Liparis longipes, the latter a lovely Orchid, with long pendalous spires of minute but sweetly-scented flowers,
Toliaged plants were shown well, the best coming from Mr. Chalk, gr . to A. Normandy, Esq. Primulas, table plants, and small Paims were also well sbown.
The best bisket of cut Chrysanthemums arranged for effect Ems shown by Miss Crook. Mr. Stevens, gr, to M. A. Voss, Which had the bast arrangement of other flowers, amongst Which Orchids were a feature.
Frait wha also staged in firnt-rate condition; so also were prodable in baskete-still a good method of exhibiting these products.
Miscellaneous exhibits of fruit and flowers came from Mesars.
J. HEED \& Bows and of flowers from Mr. J. E. KNiaHTs. \(H\).

\section*{CHESHUNT, WORMLEY, AND DISTRICT HORTIOULTURAL MUTUAL IMPROVEMENT.}

November 7.-The fortnightly meeting wa held on the above date in the Society's room at Turnford, and a large number of members was present. Mr. F. S. Hatchason presided. After the traneaction of routine buinese mattors, Mr. J. H. Dama contributed a useful paper on Prars formarket and privati des. In the course of his paper be dealt with the poiltion that trees planted for market parposes ought to occupy, and aid that out of the hundred of varieties, comparatively very few are it for market parposen. These ought not to exceed twelve, and in quantity anfficient to keep the market aupplied with vurieties in anccession.
The twalve rariotice which be recommeaded for utandard trees are Citron des Carmes, Jargonelle, Wallisme' Bon Chrétien, Beurré d'Amenlis, Henale, Cloppis ľavourite, Louiee
Bonne of Jersey. Fertility, Beurré Superfin. Princees, Durondeau, and Doyenné du Comice, these civing : Buccestion of good Pears from the middie of A ugust to esrly in November, which is late enough, as storing tor long periods of time does not pay the market man. Standards of from 5 to 6 fent in height of stem were recommended. Another system practised by some growers for a market mupply is that of buobes worked on the Quince, which allows a large number of choice kinds to be growa in a masll area, if needs be, the varioties to be taker being Williams' Bon Chrétien, Dr. Jules Guyot, Clapp's Favourite, Louise Bonne of Joraey, Beurfé Superfin, Marie Louise (double grafted), Consoiller de la Cour, Pitmaston Duchess, Doyenné du Comice, Conference, Beurré Clairgean, Durondeau, Emile d'Heyt, Josephine de Malinen, Beurré Bultet Père, and Dushems d'Angouleme, which forms a select list of grod large and choice Pears, which would command good remunerative prices in the market.
Keferring to Pears grown for private urc, be add this was practined by masy, but really understood by fow, an a great many take up a nurseryman's catalogue and mete a selection without any regard to the postition they are to ocrupy. Mr. Denn went on to apest of cordons, espaliers, wallm, \&cc. At the close discussion easued, and Mr. Cleaver referred to the alittiog of the bark of atandard trees to make them prolific; Mr. Gotber to orchards plantel under Lian; Mr. Harrimon Pegra for succesaion; Mr. Simons. prolonging the season under glans. Mr.W. L. Jaten mpore of the rarietien Chaumoniel.


The next meeting will the held on Friday, November 22, When Mr. A. Pearee will contributo apypar on "The Tabeross Begonia

\section*{PUTNEY, WANDSWORTH, AND DISTRICT.}

November 7, 8.-Toe eipbte inth annual exhibition, held at the Cromwell Hall, wa, in all respects a most eatiafactory one (tave in attendance of the public, the weather being most anpropitious), the hall being crowded with plant and cut flowera of saperior quality.
Group of Chrysanthemums - The competition in this clase was reen, the premier position being given to a splendid lof, in which fine Japanese flowers predominated, to Mr . J. Williamson, gr. to T. S. JAY, Eeq., Putney Hill: a mont creditable 2 nd being Mr. W. Jonver, gr. to Mine B. Allenswood
Wimbledon Parl. A Silver Cup given as a Ist prize (special) by Mr. E. Luck-
HURST, was well won by 8. W. Laybert, Kqq.o Northumberhurst, was well won by 8. W. Lambert, Rsq.. Northumber-
land Avenue; 2nd, also a good lot, A. Lass, Esif., Sandown Lolge. Four large flowered, in 12 inch pots: 1 st. Mp. C. Bentley. gr. to J. Bosworth. Esq., Cedar Court, Rochampton, in fine condition, being Empres Rugénie, Mrs. Dison, and Prince of Wales; 2nd, Mro J, Portbury, Er. to W. N. Prot. Esq., Bipon House. Specimen reflered: 1st, Mr, C. Bystless, with a fively.flowered plant of Mrs. Forsyth; 2nd, Mr. J.
Portbury. Two Japaneoe, siagle stem : 19t, Mr. C. Mevt.
 Specimen Pompon: Ist, Mr. C. Bemttery, with Black Douglas: 2nd, Mr. J. Portbury. Specimen large-flowered (al
here the leading prize was talen by Mr. Portbury.

In the class for a standard Pompon, height not less than 30 inches, some evanly-flowared plants gained the prizee to Mr. J. Portbury, and Mr. C. Pearce, gr. to W. S. Pigiz, Beq.。 The Limer.

\section*{The Limer.}

Interest attached to the classes provided for amateurs who do not employ a gardener regularis. For a spocimen, largoflowered, single stem, trained, the lst prize went to a capitallyflowered example from S. W. Lambkrt, Esq. : 2nd, J. PRPPER, Esq.. Eton Lodge ; these exhibitors gtining the same positions in the clase for a specimen Pompon.
Cut blooms.-Twelve incurved, distinct, 1st, Mr. J. Port BURY, with fine flowers, bat unfortunately not named. 2nd, Mr. P. Potter, gr. to J. D. Charrmatom. Req, Gifford Houee, who had, amongst others, fine bloom, of R. Parkes, Golden Empress, and Baron Hirsch. Six incurved: 18t, Mr. O. BenTLEX, noteworthy flowers in this stand were Lord Wolseley, Mrs. Heale, and Refulgens; closely following, being Mr. W.J. Wright, gr. to H. A. TUFwFlite, Rearo. the Grove. Wimbletion Park. Eix Anemones (three Japanese): soms very fine hooms W. J. Wrigat, who had particularly good W. W. Aetor, Sir

Walter Ralejigh and Neimon; 2nd, a bright lot, Mr. J. PomTBI'RY. Twenty four Japanee : bere unis were monn arnad Hower, ist, Mr. W. J. Wharri, very tine being J. S. Dibbeow. Ind being Mr. J. Portnuk ing and Lady saundem : rood Sch wabe. Mra. W. H. Fow ler, and Midame C. Mosulin.
 finest howers wero Chan, Davia, Malle. T. Bey. E. Molvneux, nnd Annio
Potikr.

Sir reflexed: 1st, Mr, O. Berrler, soteworthy bere ware Amy Furza, Piak Chrietine, and Cloith of Gold; 2nd, Mr. J. Whitiot
Twelve Pomponn, distinct, in bunches of three. a very pretty clana : Iof, Mr. W. J. Wriaut. who had noe flowern of Xdub. Elise 1 Ordmp, Mdife. Martha, and Princt of Orange; 2nd, Mr. . Bentley.
In the rlamen for aingle-hasded gandenom mome very meritorfous flowers wore nown.
Twelve facurved: 1et, Mto J. Dapk, gr, to J. Rooritn, Eeq.o whowe stand contained fine bloown of Mr. Bunn, Baron Hirman. and Gem ; 2ad, Mr. E. P'earce, Er. Lo W. 8. Pariky Mel
Twolve Japacese : let, Mr. J. Holmen, Er. to W. B. Hoonm, Eisco. some of whowe beat flowers were suntiow
The premier Japanese bloom whe Mdlie. Théren Rey, ahown by Mp. W. J. Wrialit. Premier incurved wat May Tomilia, from Mr, Portbury.
Bouquets of Chrysinthemums were very taitefully ahown. Adiantum cuneatum, arranged with white add yellow floworn, were very effective as found in the lot prize exhibit from Mr. E. Phanck; zod, Mr. P. Pottrer.

Some good groupe of mixed plants, flowering and foliage. added attractions to the show, the principel prize winasrs being Mesars. Pottes and Bemtery. A good competition resulted in the clases devoted to Primulan, but wo bave seen better flower.
Fruir mado an effective exbibit. For three bunchee of Misch lismburgh Grapen, Roort momples frow Messrs. A. Merciver and U. Bemthur mined the awards ; willet to the correapmading clan for Muncat of Alexandria, the chief prizewinners were Mensm. G. Huthow and d. Alexamper.
Densert Applee were figely thowa by Memern. J. Pontbumy and W. Thw.
In the clast for three disbes kitchea Applee, wome wonder fully foe examples of Band inghem, Biwmurck, and Alfrieton gaiped the chief awart for Mr. P. Cevanagh, gr. to Madame NTUART, Roehampton; 2ad, Mo. C. Akexanner.
Mearn were nucreafully ahown by Me.m.m. A METEVIN and

 Mood devices in Chrymathemume, wrenthe, cromer, to. \% and Mr. H. Berry, gr. to HUGA C, BMYTE, Req, a fire collection of Applon.

\section*{FOREST GATE CHRYSANTHEMOM.}

November 7. 8 9.-Trie soc ety hat only been calablimed foar years, and, is spite of ite jouth, it may be congratulated on the excellence of the exhibition beld in the Tuwn Hall, Strutiord, and opened by the Countese of Warwick. Tre eproups contributed by amateurn and gardenere contitated quite a feature, and the clases for cat blooms were terdly conteated with fine apecimens. In the group competitions, quality and eff, ct were the leading fentore ruling the jadges' awarde.
In the clase for thirty-six plantr, Mr. W.J. Smith, Plaistow, gained premier honouts with a fille bank- lapanees and ia curves flower, especially qood: MP. C. T. Coure coming in 2ud with a very creditable lof.
Twenty-four planta. Here fine arrangemeats secured the leading prizen to Mr. T. Jomes, Plaistow, and Mr. B. J. Fick li, Forest Gate.
Twalve plants... The Japanese in the let prize lot contributed by Mr. T. J. Yitzaerald, were exceptionally fine, a clome 2ud being Mr. W. C. Latirmmorio.
For tho best three buat pian
For the best three bush plants, any variety, Mours. Bntont and Howerell examples, the group occupring a well grow deners' class. The Japanese in the lst-prize this, the parMe. R. Kenyon, gr. to A. F. Hills Emq., Woodford, 19t, were noble flowers; a good 2ad being Mr. J. WA AD, Buston Road; While a beautiful lot teat by Mr. O. FrTcri, Leytonotone, wa very highly commended. We would mughent that in future the committee request the exhibitora to name their planta, It would add much to the interest and inatruetion of plestors and others.

\section*{and others.}

Cut blows. - Twenty-fo ir Japanem, a be antifal lot of flowers gained Mr. T. Smith int pofilion, noteworthy flowerk being Ermouth; clo ely following beang Mr H. Bhagutwell, ind. Twelve incurved. - Her, of Stohe Newington. Biron Hirsch, and Golden Queen of Ragland were amonget mme of the hest flowers in the let prize lot. from Mr. T. J. Fitzi, frald: 2nd. Mr. T. Smith, who had Brockley Gem and (idden Bevepley, rery gooi. Mr. Fitzarratot repeated his su cems in the clase for twelve Japanese flow ers, with, mongat others, very fine blooms of W. Seward, Colonel W. B. Smith, and Charlea Davis: 2nd, a charming lot, Mos. Wrisnv,
Twelve Japoneve and twelve
Twelve Japmoeve and twelve incurred, a clase bringing out
gained by Mr. R. Kenvon, with a grand lot; some of his best Japanese included Stanstead White, Viviand Morel, Mons. Panckoucke, and Madame Carnot whilst amongst incurved well worthy of mention are Prince Alfred, Jeanne d'Aro, and Brookleigh Gem. A very good 2nd was Mr. J. W. Simmonns, Wanstead.
Six Incurved.-Some very neat blooms were shown here. Mr. J. Welis took list place; John Lambert, Mrs, G. Rundle, Mr. J. Wenis too were noterorthy flowers,
Sir Japanese. - Very fine flowers of Chas. Davis gained the premier award for Mr, S. Boote, whilst ecarcely inferior were the beautiful blooms of Sunflower staged by Mr. W. J. Smith. Six Anemone, large flowering.-- Vary distinct and beautiful were the blooms staged by Mesgrs. Tickecl and Brightwell, who toolt the chief prizes.
Another pretty and attractive class was that for six bunches of Pompons, staged with foliage, the prizes being taken by Mesars. Smite and BALLARD; whilst in the corresponding Messers. SMITR and BuLLARD; clase for bunches of large flo

\section*{effective exhibit}

Ladies' Classes.-Some charmingly tastelul exhibits were noted here. For a Vase of Chrysanthemums, arranged for effect, with Forna and other foliage, a very gracefully-dispozed exhibit from Mrs. A. C. Bisher won the leading prize; Mrs A. Willett being placed 2nd.

Very effective were the baskets of Chrgsanthemums, arranged with their own and other foliage, Miss Fonster taking the premier position; and Mrs. E. EMberson 2nd.

A special prize was offered by Mr. H. J. Jones, Lewisham, or twelve Japanese and twelve incurv
well won by Mr. S. Wilson, Stratford.
The premier Japanese bloom in the show (Lord Brooke) was
The premier Japanese bloom in the show (Lord Brooke) was nent by Mr. W. T. Smith, Plaistow; whilst the inc
found in Baron Hirsch from Me. Trckle, Stratford.
A good collection of fruit (Grapes, Apples, and Pears), not fur competition, was sent by Mr. R. Kenyon, gr. to A. F. Hills, Ceq., the tables being decorated with foliage plants (affording a foil to the glare of colour), contributed by Messrs. Titmouse and Kenyon.
Mr. G. Pritchard, Forest Gate, sent a most intaresting and variel collection of Cacti, which attracted much attention, as being the culture of an enthusiastic amateur of these carious and beautiful planta.

\section*{DEVON AND EXETER}

November 7, 8. -This exhibition, with regard to the number of the entries and quality of exhibits, was one of the best yet held by the society. To meet the wishes of those who thought an extension of time would be an improvement, the show was kept open for two days instead of oue as formerly, but the wet and stormy weather, which persistently dogs the footsteps of this long-established society, prevented country visitors from attending, and there was a falling off in the receipts.

Considering that the value of the prizes offered is not very temptiog, the competition throughout is often, and was on this occasion, very keen.

\section*{Chrysanthemua Groups.}

In Class 1. for Chrysanthemums in pots, not fower than eighteen varieties, arranged in a circle of 9 feet diameter, quality of bloom to be the first consideration, effect also to be considered, the lst prize went to Mrs. A. D. Sim, Knowle
(ar. Mr. Willians); the 2nd prize to W. Brock, Esq, (gr., Mr. Williams); the 2nd prize to W. Brock, Esq,
Parkerswell (gr., Mr. Ruwland). This was a close contest, for, while Mrs. Sim thowed the larger blooms, Mr. Brock's as a group was more effective. As proof of this the National Chrysanthemum Society's Certificate was awarded to the 2nd prize group.
2nd prize group.
In the winnin
In the winning collection the best were W. H. Lincoln, Viviand Morel, Col. Smith, Waban, and Lord Brooke. In the and were W. Tricker, W. Seward, Harman Payne, and W. H. Lincoln.
Chryantheniums in pols, not fewer than twelve varieties, arranged with foliage plants is a circle 9 feet in diameter, taste in arrangemont to be the primary conaideration, Mr. Broeir was lat, and Mrs. Sim, 2nd. Both collections were excellent ; Mr. Brocik's the more graceful and richer. looking of the two, the bleading of Chrysanthemums Crotions, Palms, and Asparagus befing a fine bit of work.

A miscellaneous group of plants, not more than twelve to be Chrysanthemumas, in ' 6 -inch pots, urranged for effect on a stand 7 feet square, raised 1 foot from the ground, and not
more than 10 feet in beight. Mr. Brock was 1 st, Mr. T. Chapman (gro. Mr. Emmoet), 2 2d. The winning
collection was well put together, and the effect was light, graceful, and harmonious. The plants used were Poinsettias, Bouvardias, Salvia Pitcheri, Richardias, Tuberoses, Adiantums, Cypripediums, edged with Psnicum variegatum and erowned with Cocos plumoea.
The 2nd prize group was spoiled in effect by a belt of Scarlet Pelargoniums in the centre, over-weighting it with a cullour which requires discrimination in the using. In the smult claneas, Poinsettias and Bouvardias were good, Solanums fair, Cyclamen and Primuls weak, and Violets fatr.
A new elass introduced was that of six plants for dinner. table decoration, three to be in flower, and three tu cunsist of handsome foliage, the pots to be 5 inch ones, and Jawhoo fibre to be used. Unless one's attention had been drawn to it there was nothing to show that the plants were growing
in this new material ; indeed, they were vigoroun, healthy
foliage, and the flowering plants well bloomed.
Another class was for plants in 3 -inch pots and Jadoo fibre instead of soil, and these were very good indeed.

\section*{Cerysanthemums-Cut Blooms.}

In the class for thirty-six Japanese, distinct, the competiIn the class for very close, the Silver Cup and 1st prize eventually falling to Vincent Stuckey, Eiq., Langport (gr., J. L. Lloyd): and the 2nd to W. H. Fowler, Esq., Taunton (gr., Hawkins). Mr. Sruckey's lot, to which Carnot (this flower Nook the prize for the best bloom in the show, though in the opinion of many, a bloom of Robert Owen in Mr. Hammond Spenckr's group (3rd prize) was superior to it). Violet Rose, Mdlle. T. Rey, Nyanza, Lady Saunders, C. H. Payne, G. C. Schwabe, M. Charles Molin, W. G. Newitt, Louise, Go
In the zind prize lot were fine blooms of Madame Carnut, Silver King,
Toulousaine.
Toulousaine.
In the 3 drd
prize group, Hairy Wonder was very good, and Robert Owen was a grand, well-finished bloom, and, as has already been stated, quite equal to, if not superior, to that to which was awarded the prize for the best bloom in the show.
In the eighteen and twelve bloom classes there were some good flowers, nearly all containing some of those abovementioned.
For six white-one variety-the prize went to Madame Carnot, shown by H. Hammond Spercer, Esq., Teignmouth (gr., G. Foster). They were good blums, but uneven as regards size. The \({ }^{\text {Shobrooke Park (gr., Mr. Mairs) for six Beauty of Exmouth, }}\) Shobrooke Park (gr., Mr. Mairs) for six Bea
Fur six yellows, Sir John Shelley was 1st with W. H. Lincoln, and fur six any
was 1st with Col. Smith.
Incurveds were poorly represented, the entries being few and the blooms small. In the 1st prize lot-Sir W. H. Walrond, Bart, M.P. (gr., Mr. Heath)-were John Lambert,
Liseley, Prince Alfred, and Baron Lucy K
Hirsch.
Hirsch.
In the anemone-flowered section, Col. Halford Thompson, Teignmouth (gr., Mr. Ssmes) shewed fine blooms of W. Dupenlint, M. C. Leboseqz, Sir Walter Raleigh, and Grande Alveole. The best single flowered were shown by Mark Farrant, Esq., St. Thomas (gr., Mr. Protheroe) Queem of
Singles, Gold Star, Soowfiake, and Mrs. Kellock being noteworthy.
noteworthy.
In the class for twelve Chrysanthemum blooms, distinet, introduced in 1894 or 1895, 1st prize went to V. Stucker, Esq.. who, in a very good lot, included Madane Carnot, Mme. Ant type), Mutual Firiend (a graud white, good in every Way), Ny.uza (a fine dusky, reddish brown), Pailadelphia, Miss
Rita Schroeter, and Mrs. W. J. Godirey.
Taken as a whole, cut blooms were very fine, and the competition keen.

\section*{f'ruit.}

Fruit judging at an Exeter show is always a formidable business, and this year it was rendored doubly ditficult by the large number of entries, sad the nausally bigh quality in nearly every class shown.
In the premier class for twelve dishes dessert, and twelve dishenculnary Apples, all distinct, Sir John F. Davie, Bart., Creedy Park (gr., Mr. Seward), was 1 st with a grand lot, which included Coz's Orange Rippin, American Mother, Rıbstou, King of the Pippins, Adam's Pearmain, Melon Apple,

Lord Derby, Mère de Ménage, and Eciklinville seeding.
In the twelve dishes class, Miss Fripp, Teignmouth (gr., Mr. Stiles) was 1st with a splendid lot, which included Cornish Aromatic, of fine colour, Striped Beefing, Peasgood's Nonsuch, Cox's Pomona, Emperor Alexander, Mere de Menage, King of the Pippins, Warner's King, \&ec, all of which Menage, King of the varieties, and when, as in this case, they are fine exhibition varieties, and when, arge and well coloured, the chances of winning riヶe are large and
The clase for six dishen culinary was a tromendous one, and no finer fruit has been staged at Exeter than that with which Sir J. Davie won the 1st prize. Peesguod's, Cellini, Lord Derloy, and Lady Henniker were very Gne.
The lat prize for mix dishes Dessert Apples was well won by Sir T. D. Acland, Bart., Killerton (gr., Mr. Garland) with very fine fruit of Adam's Pearmalh, Cornish Aromatic, King of the Pippins, Read Ribbed Greening, Blenheim ()range, aul of the Piphins, R'aing
In the single dish classes some wonderfully fine fruit was gtaged. For a dish of any other variety (culinary) th m these named in the sehedule, the prize was awarded to Thomas Wilson, Esq., Pennsylvania, Exeter (gr., Mr. (ross) for a grand dish of Lord Derby-typical fruit-and the prize for five dessert ("other than those named") went for a fine dish of Autumn Pearmain shenn by Sub-Dean Aceand, Broadelyst (gr., Mr. Baker).
The prize for flavour was awarderl to Major Tracey, Pytte Honse (gr., Mr. Clarke) for a dish of small fruits of Margil. Pears, were a strong clase, premier honours fur nine dishessix dessert and three culinary-going to sir T. D. Aciand, 2nd to Sir J. Sheleev. Tue "any other variety -dessert" was won with Marie Louise by W. F. Ru'Hariss, Esq. Broadelyst (gr., Mr. Bawden) ; and the prize for Havour with Doyenné du Comice by sir Dudery Duckworth Kine, Bart. of Wear House (gr., Mr. MeCormick). Mr. Josmph Ham of

Broadelyst a grand dish of Catillac (1st prize) weighing
over 9 lb . for the five fruits, the heaviest being (irapes made a poor show, the only nice erhibit
being the Black Alicante (1st prize) shown by Sir Walrond. Alawick Seedling was also staged fairly This is a variety not much grown in Devonshire, Musats
The Cottugers' Classes produced some very creditableextibite, The thin border line between the employer and the working amateur gave rise to one or two protests, which will hare to be dealt with by the Committee.
The class for baskets of autumn foliage and fruit producod some very pretty designs. The 1st prive basket, thaged by Mrs. M. C. Drayton, being a masterpiece of rich eolonity and artistic arrangement.

\section*{Miscellaneous.}

The Trade exhibits were, as usual, a great help to \(H_{10}\) show. In Messra. Robert Veitce \& Sor's collection vema fine collection of fruit, good Orchids - Cattlega, Phale. nopsis, Sophronites, Pleione, stc. The pretty little Asintpundis ionantha, and the handsome Physalis Franchetiti
The Exeter Nurseries Cu, shewed a bank of Clifsemthemums containing many of the new prieties, all being well grown and full of bloom. In their flomid departmant thes had a wreath and a cross made entroly of Cypl pediums.
Mr. W. J. Godfrex, Exmouth, staged some of his nem Carnations Goldmine, Sunrise, and Reginald Godtrey, and the new Chrysanthemums Clinton Chalfant, golden eeliow; Mrs. W. J. Godfres, a fine broad petalled milly wilith flower : also a fine tand of trusses of Pelargoniums of siderable merit.
Messrs. Jarmair \& Co., Chard, had a collection of Teget ables and Fruit, armongst which were some good speciuens fell-known sorts.
Mr. Chas. Sulater of Heavitree Bridge, and Mr. Wuris Hereford, had large collections of fruit on ahow.
The Rev. J. R. Dumelow, of Membury Parsonaye er hibited three bunches of Black Hamburgh Grapes, which were grown on a south wall in the open air. The bunchas were large, well-coloured, and the berries of a good iiza The Vines were planted six years ago, and the fruit has ripened taree years in succession.
Mr. T. Bartlett, Exeter, had some pretty fioral moriai the way of wreaths and crosses,

\section*{NATIONAL CERYSANTHEMUY}

\section*{Floral Committee.}

November 11.-Judging from the very lare number of new varieties nabmitted for the opiniond the Floral Committee on this occasion, the fiom the tide of novelties appears to wax in volume, for good portion of the northern gallery of the Boju Aquarium was filled with them, and carefan committee may be in the matter of graning ficates, the high quality of ma
Certificates of Merit were a warded to Ewan Camerona, aprax white finely-formed single variety of dwar! growth, ad pos tree, the a ward being made to it as a higaly promilion variety, from Mr. K. С. Goble. Walcot Nursery, white th Wight. 'To Mrs. A. E. Stubbs, also a single pure ming win a fine incurved type, briyht amaranth in colour, wir bil rose and silvery reverse, bro ad petalled, latgy, and fall bin from Mr. H. Joney Ryecroft Nursery, Lamishe m Japanese John Lightloot, delicate lilac-pink, petals suffuser with pink towards the po Heigh,
with purple; and to incurved George from Robert Puttield, pale dull rosy-purple surface, will bhe and gold reverse, large and full, and very promaideal Mr. Robert Owen, Castle Hill Numery, Maidelom fom decorative Japanese Clinton Chaloat, a bright and partaking of the reflexed type, verg brigg pithe plant som promising to make a fine mariet vanne Hoad, very free and excellent for cutting, both from Godfrix, nurseryman, Exmoutb. To Japanad, mawsive, a great acluisition, from masese Arouis the build and in the way of Col. W. B. Smith, bat the petal, and more gold on the reverse, Hill, gular to state, among some new varieties eand like Mr. Ironside's Arona, but with searcely on the reverse, thus illustrating the fact thas very
apart geographically, may yet raise sedlings vien and in all probsbility both will bo send also to Ja
H. Hicks, a magnificent variety, of which men shown, the largest, a mazaive flilacopink, the - astra fine. Pompon Dolly, a rather large raniety, with handsome, well-forme Chenon de I large reflezed Japaneese, the cianamon, with golden centre, and golder poin yellowala -very distinct and fine, fint, the lightly atnined of to Very pleam Bubrieres,
pink, with silvery-white reverse, a fine full flower-all from Mr. Willism Welis, Earlewood Nurseries, Red Hill. To Mr. William Welis, Earlswood Nurseries, Rod Hill. To
incurved Major Bonafion, bright yellow, with plenty of small petals symmetrically arranged - a very promisiog exhibition variety, from Mr. W. Mense, The Gardens, Downside, Leatherhead. This was shown by three other exhibitors also.
Of flowers of decided promise, and which are pretty oertain to guin Cartificates in the future, mention may be made of incurved L'Amethyste (W. H. LEES), bright amaranth, with silvery-roee reverse, a distinct and highly promising varioty ; Harold Wells (W. Wells), a large incurved sulphur sport from Sir Trevor Lawrence, very promising; Mrs. C. Johnson ( \(W\). WELLS), pale ground, the long reflexing pale florets flaked and striped with rosy crimsoo, distinct and novel; incurved Mre. Hepper, white, fine form and good petal; and Mrs. Filkine, a Emall bright yellow decorative Japanese, with thread-like petals-both from Mesers. H. CAmmell \& Sows : Mrs. W. J. Godfrey, a large, white, broad-petalled incurviDg Mrs. W. J. Godfrey, a harge, whita, broad-petallod incurving
Japanese with olight hairs; and Mayor of Ermouth, norel in co:our, of a kind of pale cerise, chestnut bronzy reverse - both from Mr. W. J. Godprey, Exmouth; and Mise Madeline Davis, a silvery-pink Japanese, with long incurving florets, though some what loose, from Mr. H. Weris.

\section*{WINDSOR.}

November 8.-A pretty exhibition of the Chryaanthemam and other anbjecta was held in the Albert Intitute at Windsor, on the above date. Chrysanthemum plant were arranged in groopt, and made a huge dieplay; the quality of the blooms to be a chief point.
Mro. E. B. Foster. Clener Manot (Pro, Mr. Cole), took the lst prize; and Lord Boston, Hodsor Parl (gr., Mr. J. Wood), the 2nd.
Specimen plants were excellient; the best four coming from Mra Bowrivg, Ascot (gro, Mr. Paul), who-e plants wore
6 feet in diameter and well flowered ; and Sir H. D. Goocr, 6 fart., Clewer Park (gr.o Mr Skeet), was 2nd, with wellgrown, standard-trained planta
Amateur caltivators showed in strong force in the twelve p'anta' class, there being no fewer than nine competitors. The lst prize went to MP. H. EDWARDS, Windsor, for an excellent exhibit.
Cut blooms, of fine qdality, were staged in large numbers ; and for thirty-sir distinct, half to be Japanese, and hale incurved varietier, N. S. Cohen. Eby, Englefield Green (gr.,
\(\mathrm{Mr}_{\mathrm{r}}\) A. Sturt), succeeded in winning the lst pace with handMr. A. Sturt), succeeded in winning the list pace with hand-
some blooms of lèding varieties; Mass A. N. RIDGE, Higho some blooms of lexding varieties; Mass A. Ns. RLDG
field, Englefield Green (gro, Mr. G. Lane), bing 2nd. A Challenge Cup, with a good money-prize, was offered for twelve incurved and twelve Japanese varieties, which Mr. lane won with remarkably fine blooms; Mr. A. STUBT being \({ }^{a}\) good 2 nd .
For twelve incurved, Mr. F. J. Paul won the premier place with a meritorious exhibit.
For six Japanese, any one variety, Mr. CAWTr, Dedworth Green, was lst, with E. Molyneur. Anemone-flowered varioties were very well shown by Mr, A. STURT. Mr. W. Neate, gr. to Miss MaCKEr, Ascot, was list for twalve blooms of the reflexed varieties.
Special prizes were offered for a vase or basket of twelve blooms cut with long stems, and in response there were seven really meritorious eshibits, which well showed the value of the Chrysanthemum when used in this mander. Mr. Cawte Was 1st, with a device consisting of a neatly-covered circular
basket, set out with Ferns, moss, \&c.; Mr. J. Wood was 2nd. The exhibits of Grapes, Applee, and Pears were of much merit, and vegetables were largely exhibited.

\section*{TOOTING, BALHAM, AND MITCHAM HORTICOLTURAL}

November 8. - Thie Society may be congratulated upon holding a very pretty exbibition on the above date, which took place in the Baths, the pacions hall being quite filled with many otjects of great horticultural intereat, as in addition 60 Coryanthemums there were several specimen of plants in bloom at the preant time, alaotraitand vegetables. Groupa of plante foard a place round the aidea of the Hall, and the frait and cat flowers on tables. There were several baskts of vegetables-not a good way of thowing them, an they would appear to greater advantage if neatly laid out on ordinary extivition table.
The beet group of Chrgsanthemums, which won the Silver Cup given by the tradesmen of Balham, came from Mr. H. roalton, gr. to C. F. Caler, E q., Lvy Moust; the blooms Very fine, but sadly nee ling the relief of some foliaged plants toreduce the packed appearancs of the group. A group from Mr. H. Beckett, gr. to G. 8. Miller, Ekq., Logie Wood, ran it rery close indeed in point of quality and effect. Some pleasing groups of foliaged plants were also staged; and some wellgrowa and blowmed epecimens of largeflowering and Pompon Chrysanthemums came from Mr. E. Cherby, which were awarded lst prize.
The Silver Cup given by the tradesmes of Tosting for twelve incurved and twelve Japanese Chrysantheraume, fell to the lot of Mr. W. Howe, gr. to H. TıTE, Rsq, Streatham, who had gead blooms of Empres Eugénie, Baron Hirscb, Empreas of Indis, Bobert Petfeld, and Pricen Ahfod; and of Japanese, K .

Molyneux Col. W. B. Smith W. Sewand, Dake of York Golden Gate, and Visconatees Exambledon. J. Wild 4 An Req. Was 2nd, having a slight pull in the incurved blooms, but loaing materially in the quality of the Japanese. Mr. Wild. Man had the beet twelve incurved: Mp. Howe coming lat with twelve Japanese. Sizes of incurved and Japanese were also well shown. Some gord bunches of Pompons were showa by Mr. E. Ceerry.
At each end of the hall was a large table filled with floral decorations, showing the manner in which flowers may bo anployed. The compatition was a epeciel opanclaes. Tue let prize was awarded to Mesans. Harwood Bros, for contributions of a very high crder of merit, showing not only ercellent tasto and judgment in arrangoment, but perfect esecution. Wraaths, croses, a charming lyre, bouquets, shower bouquet of white flowars, and an ordinary bouquet of Orchide, were spocially good. The 2ad prize went to Mr. G. B. Fiscris. of Clapham; but the flopal decorations were epare. and what there was fell far bslow those of the Mesars.
Harwood in print of quality.
Excellent Exotic Yerns in
table plante, berried plants
Frulante, berried plants, ac.
Fruit was reprosented by good Apples and Peare; Tomato were also staged. Messrs. Sutton \& Sons' apecial prizes for six sinds of vegetalles; and those of Mengrs. Harwoon Bros, for the same number, brought good collections. Unfor tunately, the weather was somewhat uapropitious.
Misceltaneous groups of plants were contributed by Messrs. Harwood Bros. Balham Nurseries; B. Peen a Son, Roupell Parl Nurseries; and R. Nral, The Nurseries, Wandsworth, who had two large groupe, and there were smaller contribu tions; to all these Certificates of Merit were awarded.


The term "accumulated temperature" indicat. the aggre gato amount, as well as the duration, of degrees of temperature above of below \(4 c^{\circ}\) Fahr, for the period named: and this combined result is expreseed in Day. degrees - a "Day-degree" ignifjiog \(2^{\circ}\) continued for twenty-four hours, or any other number of degrees for and proportional number of hours.]
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
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deg. & 10ths Inch. & & Ins. & & \\
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\hline 2 & \(3+\) & 33 & 4 & \(1+225\) & + 307 & U aver & 160 & ; 248 & 25 & - 35 \\
\hline 3 & \(4+\) & 45 & 0 & \(1+186\) & + 300 & \(7+\) & 139 & 21. & 15 & 51 \\
\hline 1 & \(4+\) & 35 & 0 & + 181 & + 388 & \(8+\) & 132 & 203 & 12 & -38 \\
\hline 5 & \(6+\) & 65 & 0 & +153 & + 35.3 & \(12+\) & 128 & 20.2 & 12 & , 41 \\
\hline 6 & \(1+\) & 28 & 4 & + 120 & + 406 & \(1+\) & 168 & [30 3 & 18 & | 33 \\
\hline & \(1+\) & 3 & 1 & + 218 & + 233 & 3 & 162 & 284 & 10 & - 38 \\
\hline 8 & \(3+\) & 56 & 0 & + 153 & + 378 & \(14+\) & 138 & '288' & - & - 43 \\
\hline & \(1+\) & 29 & 8 & + 63 & + 302 & \(2+\) & 181 & [291. & 27 & 7. 32 \\
\hline & 0 aver & 41 & 7 & - 12 & + 235 & \(8+\) & 1153 & 24.7 & 41 & ' 35 \\
\hline & \(5+\) & 88 & 0 & + 241 & + 252 & \(13+\) & 158 & 219 & 18 & 81 \\
\hline
\end{tabular}

The districts indicated by number in the firat caluma are the following:
 7. Kngland, N. W. © B, Englend. A.
10 Ireland, S. Ohmanel Islands.

\section*{THE PASTWEEK}

The following summary record of the weather throughoat the Britiah Islands for the weel ending November 9 , is furnished from the Meteorological Office:
" The soeather during this period wis very unnettled in all parta of the Kingdom. Rain fell slmest daily, the amounts in many instances being large. The atmosphere wes menerally mild and humid, and much mist and wet fog prevailed a times. A brilliant display of aurora was cbuerved over Great Britain during the evening of the 9 th.
"The temperature just equalled the mean in "Fcotimed, N . and E. and in Ireland, S., but whe abowe it elvewhert; in 'England. E, aud the Midland Counties,' the excess was \({ }^{\circ}\); in the 'Channel Iolands.' 50 : and in 'Eugland, \(\mathrm{S} .{ }^{3} 6^{\circ}\). The higheat of the maxima were reconded either on the fth or

Th, and ranged lroa \(69^{\circ}\) in the 'Chananl Ialanda, \(62^{\circ}\) in
 "Irelond, \(M\) !' The lowet of the mieime were mgictertd, a a rule, on the 3rd, when the thermometer foll to \(21^{\circ}\) in "Boolluad, N. and E.,' and \(23^{\circ}\) in 'Irelend, 8.0 and to botwoea \(27^{\circ}\) and \(32^{\circ}\) in noarly all other diotricta. In the "Chas me! Idende" howerer, the lowent reeding wat \(40^{\circ}\).
-The rainfal was conaiderably in excom of the sean in most dietricts, but only juet equalled the normal in ' feothad. K, and Eugland, N.E." and wao rather ien in ' Eagland, N.W. 8 the ex cose was very large in mont parth of Englaed.
" The bright sunshime was much less preveleat than of lete ovar • England and the Chanpel Ialadn, whare the amouat recorded was leas than the normal. The percentage of the poseible duration ranged froce 97 to 41 in Iroland, from is to 26 in 8ootland, and from o to \(8 \%\) over Rogisnd. In tie Chanmel Lalande ouly 16 per eont wee registered."

\section*{Markets}

COIENTT GARDEN, November 14
We cannot accept any reaposaibility for the mobjoined reporty. They are furaithed to us recularly every Thursday, by the kindnees of everal of the priacipal salesman, who revine the liet, and who are reapoande quotations do not reprement the prices on any particular oay, but only the gencral averagen for the any particular the date of our report. The prices depend upon the guality of the samples, the supply in the market, and the demand; and they may fluctuate, bot only from day to day, but often sereral times in one day. KD.]
Platis in Pots.-Avelace Wholesale Pmere.
Adiantum, per doz. © \& 0-12. ©. Ferps, various, doe. B. 0.12 .
 A Chrysanthemume, doz. pols (opecimedo). p. plat
Crperus, per dozen Dracsena, each
Rrican, various, doz.
Erica E, Various, doz.
Evergreen Shrubs,
in variety, doz....
Follare plante, doz.
Lilium Harrimis, per


Cut Fiowers.-Aymbege Wholfgele Prices
Arums. p. 12 blooms
Azalea, 12 sprays

\section*{Azalea, 12 sprays ...
Bouvardias, perbua,
Carsatione. 18 bims}

Chrysanthemumas,
per 1 y blooms
- per ig bunchen
Kucharis, per dozen
Gardenie, per dow, Gardenta, per dos. b:ooms
Lilac, French, p bun.
- Iancifoliux, per dosen booms. per doz. sprays... Maidenhaip Fern,
per 12 tuoches per 12 tuvebes ...
Marguerites, 12 bo.
Mignonelto, 12 bun.


Orciid-bloom in var.et
\begin{tabular}{|c|c|}
\hline \multirow[t]{2}{*}{Apple , Ríbstoses, per} & \multirow[t]{3}{*}{\begin{tabular}{l}
Graper, Ali. \\
canto. lat
\end{tabular}} \\
\hline & \\
\hline bushel ... 360 & \\
\hline \multicolumn{2}{|l|}{- Bleoheim, per qualíty. p.lb. 1} \\
\hline Kings, per & quality, p 16. 10-10 \\
\hline bushel ... \(30-10\) & - Muecat, let yu. \\
\hline Cox' Oranke. & lity, p. Ib. ... 2 6- \\
\hline per bushel 3 6-60 & - Muscat, 2ed qua- \\
\hline Ccoking varm. par bushel 16-30 & lity. D. 16. ... 19 \\
\hline From Nuva & Doyeabe da Comice, ive. \\
\hline \begin{tabular}{l}
8 cotia, per \\
bartel ... \(110-140\)
\end{tabular} & Dachess, half. vieve \\
\hline Cobs, per 100 Lb . ... 3000350 & Beursé Diel, per \\
\hline raper, Groe Colmar, & bulf-uzev. \\
\hline lat quality p . & Pime-apples, St. Mi- \\
\hline 1b. ... - 16-1. & cheol. ex.sh \\
\hline quality, per & Quisee half rim \\
\hline 10. ... ... 10-1 & , \\
\hline &  \\
\hline
\end{tabular}
Vegrtanlus.-Avilace Wrownale Phacs
 cwt. beg.i.. buan. \(20-1 \quad-\)

The trade duriog the pat weel has beea quiet, and prices not \(s 0\) firm; and atock at the dopit have slightly incrensed J. B. Thomas.

\section*{SEEDS.}

Lompon: Noutmber 13,-Mearn. Johs Shaw S Sur, geed
deacribe to-day's market bare of interest. Notwithstanding the unusually low and attractive prices, which now prevail for Clover and grass seeds, country buyers appear to be in no hurry to oprate. Canadian Alsike is stronger, and perennials also to told upwards. There Canary seed, whilst the home demand neglected. As regards Canary seed, whilst the home domand continues slack, hizher quotations are cabled from Turkey. The new Hempseed offers cheap. Blue Peas and Haricot Beans command former terms. Rapoved keeps steady. Fine white Mustard is firmer. Linseed is dull. The Board of Trade Returns give the imports of Clover and grass seeds into the United Kingdom for the first ten months of this year as \(315,483 \mathrm{cwt}\), value 2388.741 ; as against \(261,400 \mathrm{owt}\), value ed35,233, for the corresponding period of 1894.

\section*{POTATOS.}

Borough: November 12.-Quotations ranged from 40s. to 90s. per ton.
SpITALFIELDS: November 12. - Quotations: - Magnums, 40s. to 50s.; Imperators, 45s. to 60s.; Sutton's Abundance, 50 s . to 65s.; Snowdrops, 50s. to 70s.; Braces, 45s. to 55s. Hebrons, 60s. to 80s. ; Main Crop Kidneys, 45s. to 70s. per ton.
grratrord, November 12.-Quotations:-Bruces, dark soil, \(35 s\) to 40 s ; do., light, 40 s , to 50 s .: Reading Giants, 45 s , to 35s. to \(40 \mathrm{~s}^{\circ}\); do., light, 40 s . to \(50 \mathrm{~s}_{\mathrm{o}}\); Readiog Giancs, 55. to 65s. per ton.
Farbikedor: November 14,—Quotations: Snowdrops, 70 s. to 100 s . : Hebrons, 60 s . to 90 s. ; Imperators, 508 . to 60 s Magnums, 45s. to 55s.; Early Rose, 55s, to 60s. per ton.

\section*{Trade Notice.}

Mr. James Adshead has taken over the nursery and florist business of James Firkins, Albert Narsery, Eccler, and which will in fatare be known as Adshead \& Henshall's.

** Owing to the great pressure on our space, several reprets of Horticutural Exhilitions cannot appear in this issue.
Address: H. O. D. M. A. Alegatière. Chemin de la Cruix, Marion, Montplaisir, Lyon (Rhone).
Booss: Encyclopadia. Nicholson's Dictionary, pub. lished by Upcust Gill, 170, Strand, is a vary useful encyclorz ia for a gardener to possess. We do not know the price of tha bound volumes.-J. Dobson. Vines and Vine Culture, by A. F. Barron. poblished at 171. Fleet Sireet, E.C. (Journal of Horticulture). Animals of the Farm in Hoalth and Diseare. a pamphlet of 68 pages, to be obtained at the Roval Agricaltural Society of England's House, 12 Hanover Square, Landon, W.-S. E. J. Chrysanthemums and their Culture 8 h Etition, by Edwin Mulypux, pobirhad at 171 Fleet Street E C. - My Gardoner, by W. H. Ward, published by Egre \& Sootiamode, Fat Harding Street, E.C. or Tilla Gardening by E. Hobdsy, pablished by Macmillan \& Co., Bedford Street, Covent Gardev, W.C., the former being the newer book.-A larger ad more expensive work in the Gardeners' Assistant, by R. Thomaon, published by Biackie \& Sons, Paternoster Baildinge, London, E C.
Best Roses for "Buttor-holes": Beginner. There are not filty best batton-bile Roses. W. Allan Richardeon, Ma Capacine, Devonensis, Niphetow, Máchal Niel, Toe Bride, Hapmoa, A K. Williame are amnng the best. See also p. 497 n Gardeners' Chronicle for Oatobur 26 last. We cannot affird opace for maming fifty tine varietiea for the garden. You must conoult a catalogue published by some good Rose grower.
Cattleya labiata mite new Roots forming and swalling Leads: \(D G\). K ep themgenciy moving in a semperatare, which at night is not leas than \(60^{\circ}\), or by day higher than \(68^{\circ}\) or \(70^{\circ}\). Toe same will hold sood for these C. Monsses which are in \(s\) forward atate.
Catifirya Tanami D, G. Being newly imported, arcer trimeing way dead parta and thoroughly washing every part, put them loowely into pots of a suitable vix, surrounding the roota with clean crocte: place in a warm, nolat hotuls, and occe-
sionally tyringe them. The minimum temperature need not be less than \(60^{\circ}\). When root growth becomes visible, pot them in the usual manner, and whilst inert the sun should not be allowed to shine directly apon them.
Chrysanthemom Sport: S.S.S. The bloom you send mas bave a little more colour than Source d'Or usually has, bat we do not regard it as valuable.
Chrysanthemum Sport: \(W\). Gee. The variety Chre. Davis is asually yellow on the crown bad, but we do not recognise the bloom you send as that variety, though it is near it. In case it may be a port, and bloom to the next Fioral Committee of the National Chrysanthemum Society, or to the Royal Horticultaral Society, or even to some large grower.
Dendrobium Wardianum: D.G. It should improve and grow larger, your treatment cannot be quite right.
Dressina for Vines: \(T\). \(B\). Clay, a bucketful; cowdung, quarter of this quantity; gair-tar, one pint; soot and sulphar, a handful or two, adding water sufficient to make a thickinh mixtare. Strain through a fine sieve before using it. If tar be not liked ute petroleum, at the rate of two wineglannfuls, instead of it. The mixture must be applied when the Vines are at rest.
Eucharis: Wm. G. We know of no remedy when the mites have gained access to the interior of the balbs. Had the attack been commencing only, you might have soaked the bulba in nicotine, or a atrong solution of soot water, soap, and paraffin.
Eucharis-Mite: Wm. \(G\). Your bulbe are attacked by mite, but not at present to great extent. The bulbs being perfectly sound, it may be possible to keep them, if energetic measure are trien at once.
Gardeniss: T. W. Peat, \(\frac{1}{2}\); fibry loam, one year in stack, \(\frac{1}{4}\); leaf mould, \(\frac{1}{4}\); and sand in mafficient quantily to make it rather porous. Some garceners nee a larger proportion of loam if it is of a light nature, and broken sandatone is found to be of use, together with and in making border for the plants. It is a plant that require firm potting and plenty of drainage materials.
Gardeners' Orpann Fund - W. Hunt has thankifor 48. formarded to the secretary to this fand.

Hardy Himalayan Rhododendrons: F. S. At Kew there bloomed R. fulgens, R. Thomsoni, R. duburicum, \(R\). alta-clarense. At Nant-y-G/yn, R. eximiam, R. cinnamomeum, R. campanulatum, and alta-clarenee, flowered in the opan air. See pD. 356 and 363 of Gardeners' Chronicle, March 25 1893
Houlletia picta: \(W\). M. An inepection of the \(^{\text {. An }}\) names of plauts on p. 470 would have hown you that the plant had been noticed, and the name altered to H. Brocklebankiana.
Imported Lelia and Cattleya: D. G. If you prefer to bay knowing what you are getting, make visits Lo the sale room when flowering lots are advertised. Otherwise put reliance in the Orchid dealer, and buy eatablished planta which have flowered or of which he can guarantee the apecies. There in an element of chance, that is not unpleasant to many permons, in buying up unflowered lot..
Inswets: J. L. Grubs of the common cockchafer, mall variety. Eucourage the rooks,
Laws Sand: Subecriber. Thone who have ueed this aborace speak highly of it. We imagine it is some kind of artificial manare, which, by encouraging the growth of the grasese, causes in time the destruction of the weed which even in bad tarf are in the minority.
Maize: T. S. The presence of a few grains on the male influreacpnce of this plant is not uncommon, and it is an undesirable malformation.
Moshroom Buds: G. L. B. L. To all your questions we can only answer " \(N\) o." The productivenens of an old bed map be revived nomewhat, if it have not quite left off bearing, ho watering it with warm water-say, at \(85^{\circ}\) to \(90^{\circ}\)-in which a little salt, at the rate of wo tatue-spooniula to three gallons, is dissolved.
Names of Peante: Conmpondents not ansidered in this isouse are requected to con wit the mext number. Mrs. Lo, Gopted Hall Seeds of the Black Walnat (Juglana nuna).-Lintaba, Oncidam longipes.
 cations to nume flo vers, and es pecially fruit, -The amb at this sedson as seve ely to tux our resources. They entar an expenditure of time, labour. and monev, ny wohich entur readers cin have no adea. We are always willing to obsgo our correspondents \(a\) ef ir as we c but the exiting of the \(G\) ard ant Co-respondents are resp-ctful y raquested ro ob, erpe give way. Co"respondents "ire resp-ctful y raquested ro ohrerve the nds
th it not more than six spec.mens can be dealt with at a tim If more are sent, it woud buens can be dealt with at a time. lf more are sent, it woud ab a graceful act on the part of the Orphai Fund. Specimens should be good ones, carefull pars and numbered. Leaves oniy. or hlorists' varieties cammat rule. be named. Correspondents sending plants or frusto to b named, or asking questions demanding time and rrame is their solution, must not expect to obtain an answer on enquiries in the current week.
Names of Fruits: J. W.M. Apples, 1, Egg of Whit Paradise; 2, Queen Caroline; 3, Golden Nuth. 4, Gravensteiu; 5, Warner'a King; 6, Rond Winter Nonsuch.-J. Southern. Apples, 1, Lan Lennox; 2, Fearn's Pippia; 3, Wajham Abby Seedling; 4 and 5, Damelow's Seedlinis Pe Bearié Clairgean.-T. J. J. S. C. Pears, \(1,8,3\), 4, and 5 all Beurié Diel, varying somomat in sia colour, \&c. Apple, King of the Pippine,-M.H.P. Apples, 1, Old Eugliah Codlin; 2,4, Hawthomden; 3, Yellow Ingestre; 5. King of the Pippias \(6_{\text {, }}\) C'ox's Orange Pıppin.-G. Sears, Apples, 1, Hollandbary; 2. Peasgooa' Nonauch. Pears 3, Ibon Luclerc de Laval ; 4, Gansell's Bergamut; 5, Vicar of Winkfipld.-Raby. Pear Doyenné du Cumice. W. W. Yoar Peart were absolately rotten and crabed when they arrived at this office.
National Amateurs Gardening Socify: I. P. Tae aima and orjecte are the fustering of a lore of gardening amongat dwellert in towns and the holding of exbibitions of the plants, 目owers, fruitu produced by its members. There is plenty of topo for ita endeavours, and already there are indication that the leason. imparted bave been made of aue, Small Border: Flora. You will be acting well if you take up the old Roses, and trench the premit aites of the clumpa. The trenching may be done 2 or 3 pits deep, if the soil is deep enorgh to atand it; if not, dig down to the bad soil, giring it a stir up, and leave it where it is. Mis plenty of rich manure ( pig ' is good for Rosee) with the soil; and if the land is not too dry wheu fininhed plant it with finer varieties of Roset than thew taken out. If too wet to plant, defer the lam job to March, but dig the groand. Read To Flower Garden Calendar in this week's inue, Tw intervening apaces may be planted with Hjacint Tulipi, early and late varietire, Anemoneo, ham calus, Crocus, Scillan, Wallfowers, Arabi, Caw bury Bells, Liliam candidom, L. croceam, elegans, L. longiforum, L. Martagon, L. dsbars cam, and otbers. Aim at getting in this majm early dieplay; and for later flowering duere molro ot tender bedding plants, Annuala. Dahlisa, Holy hocks, and Michaelmae Dusies. Toe fesce migh be planted with Cnryasnthemuma, Trop molum adancam, and other varietief, Hond: briar, Juminen in varietr.
suckles, Clematis in variety, \&cc.
Some Ingects in a Vinery: F. A, G. The inacts urived very much booken. Tine reddinh mouns are Aphodiun fimetarius, the dark ones are to the scaber, and the grab apparently belonge with latter, Both were probably introduca are act manare or decaying animal matter, and "in likely to idjare the Vines. Sull, as thej thousands," you may as well try to gat ril them, R. MoL.
Tomatos caubimg Disqualification of a The ar Vhortables: \(J, G\). 11 there was \(l o\) rale in achedule excluding them, their presence exhibit ought not to bave caused the onqu in th tion of tbe collection. Taey are Marront sense that Cucambera, Vegetable Capaicuma are sraits.
Winter mote: J.E. The bande nhould have but 14 weur places at the beginaing of Occobers. now, we fear, too late for them to do mach gred Smear cart grease on to broad bands ongret proof paper, and alter emoothing the fix one the bask for abont 1 foot in width,


Frotodnapis, seraduens abor Bxdrivid


\title{
CHRYSANTHEMOIIS. - CHRYSAMHEMWUIS.
}

\section*{NORMAN DAVIS}
beGs to say his preliminary list of chrysanthemums is now ready. This is a carefully-prepared Alphabetical List of the orem of recent introductions, so far as in commerce, free from sensational and unnenosary long demoriptions. It will be found a useful list for reference: sent pont-free.

\section*{SPECIAL NOTICE.- GRAND NATIONAL JUBILEE SET OF NOVELTIES.}

Soon as the shows are over I shall prepare a LIST of NOVELTIES for 18\%0. This List will he a short one, an I am anxious that the set shall be composed of nothing but back row flowers of the choicest description. Several of my purchases have already been shown in public, and removed unanimous approval. In addition to the beautiful varieties raised by Mr. H. Weeks, of Derby, and two exceptional sterling Novelties from America, it is with great pleasure that I am able to announce that I have made arrangements with Whumam Seward, Esq. of Hanwell, to distribute his set of six magnificent seedlings, which have justly been the admiration of all who have been privileged to see them. The whole of these will form a grand utile set, worthy of the occasion, and undoubtedly the finest collection of Novelties ever introduced.

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1000 Houses in stocks to select from Works cover 5 acres.

\section*{IMPORTANT.}

Wo beg to inform all readers of this Paper that the Fourth Edition ( 100000 copies) of our Revised PRICE LIST, consisting of 406 pp . and about 1200 Illustrations, bound in cloth, is Now Ready, We shawl have much pleasure in forwaraing to every person one Dost-iree on application This List is the moet complete in the Trade, and has cost several mothsand hounds to produce.



The Subscription List will be open on the 16th November, 1895, and will close on or before the 19th November, 1895 for Tomn and 20th November, 1895, for the Country
Each holder of four \(£ 1\) shares will be entitled to purchase from the Company to the extent of \(£ 10\) per annuu, at special discount prices, Photographie Apparatus and Accessories, Magic or Optical Lanterns and Accessories, Horticultural or Special Apparatus for Gardening, including the Company's Patenterphe
other Specialities for Insecticide Distributing, and Blight Preventing Apparatus, also Patent Safety (Gold Medal Award) Petroleum Lamps, and in respect of orer other Specialities for Insecticide Distribu
additional four shares a like advantage.
DAWKINS \& CO., incorporated underer the companies Ats, 1882 20 1830 .

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DIVIDED INTO IO,000 SHARES OF £I EACH, of which £2,000 is reserved for Working Capital, PAYABLE AS FOLLOWS

\section*{5/- PER SHARE on Application.}

5/- PER SHARE on Allotment.

\author{
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}

\section*{DIRECTORS.}

\author{
STEPHEN H. MARTIN, Ludgate Hill, Birmingham, Hardware Merchant. \\ JOHN SHAW, Park Vale, Alcester Road, Moseley, near Birmingham, Commercial Traveller. HENRY STRANGE, Tenby Street, Birmingham, Brassfounder. Managing Director-*WILLIAM ARTHUR DAWKINS, of Homestead Kings Norton, near Birmingham. Will join the Board after Allotment. \\ Bankers-THE LONDON AND MIDLAND BANK, Limited, Birmingham and Branches. Solicitors-T. EDWARD SILVESTER, 8, Church Street, Birmingham. \\ Auditors-JAMES RHODES \& CO. Secretary-WILLIAM PERKINS. Registered Office-4O, EDMUND STREET, BIRMINGHAM.
}

\section*{PROSPECTUS.}

The Company has been formed to acquire and carry on the established business of Mr Wh. Arthle DawniNs (known as W. A Dawkms \& Co.), Manufacturers of Photographic Cameras and Apparatus, Optical and Lime-light Lanterns, Horticultural Apparatus and Garden specialities, and etroleum Lamps, and General carried on at 58, Caroline Street, Birmingham, and at the Wholesale and Apparatu8, now carried on at 58, Caroine street, Birmingham, and at depot, 40, Edinund Street, Birmingham, including the following Patent Rights:
1) An invention in and relating to Petroleum Lamps, granted to Thomas William Wilson and Harry Butler jointly, on 8th March, 1892, and numbered 4,583, and contracted to be sold to the Vendor.
(2) An invention in and relating to Garden Syringes, entitled "Improvement in Syringes," the acceptance of the complete spe
21st September, 1895 , and numbered 11,502 .
(3) An invention for improvements in and relating to Photographic Cameras, granted to
the Vendor 22ad June, 1894, and numbered 12,119.
It will be seen that the business comprises three distinct departments: (1) Manufacture of Photographic and Optical Lanternl Apparatus and Accessories; (2) Manufacture of Horti cultural Implements; (3) Manuftcture of Lamps, and for every four shares to his or her annum at special discounts, varying from 10 per cent. to 30 per cent., according to the nature
of the goods purchased, the higher rates of discount being allowed on goods manufactured by the Company.
Tho successful working of the principle of mutual benefit to shareholders has been proved, as is well knuwn, by the wonderful strides made during the past decade by Cooperative Societies in all liranches of trade, and the business of this Company is one admirably Horticultural Apparatus will he sent annually to Sharehulders.

The enormous increase in the use of the Phutographic Camera as a popular companion by mateurs and tourists, aided by the present day faclities for cheap Railwas Tours and Excursions, leads the Directors to believe that the trade produced by the dernands for this class Cameras annually, while a large demand may be expected for the Optical or Magic Lantern by patrous of the Camera as a means of showing their photograpins during the winter venings.
 turing profits, and at the same time to save the cousiderable profits hitherto solely enjoyed yagents and middlemen.

The Directors have also decided to add to the already extensive Lantern-Slide Lending and Hiring Lepartment opened by the Yendor a complete set of popular ancient and modern subjects, tours, and humorous slides of high-class quality. The Shareholders will be entitied hire slides and apparatus at two-thirds of the rate charged to the public.

In the Horticultural Department, also of the Company's business, it is anticipated that there will be a large annual demand for Horticultural Specialities among the Shareholders. The Patent Syringe is already well known to many amateur gardeners, and in connection with this and other distributing apparatus the Company have aequired the formula of a reliable speciality, well known as "Garden Pest Exterminator," and which has for some time past been manufactured and supplied by the Vendor. For the convenience of Share The Directors beg to call special attention to the princluples high-class Garden Seeds.
Thans Petroleum Safety Lamps, an illustration of which accompanies this prospectuis the Patent secen that the object is to provide an inoproved means of attachment of the burner to the vessel containing the oil by means of a straight guide, at the end of which is a bold coupling screw, which reuders cross-screwing in attaclment impossible, and forms a securely locked joint. In case of any accident or upsetting of the lamp the burner retains its relative position, and any possibility of explosion or fire is prevented. Users of letroleum Lamps will have doubtless observed that ordinary Lamps of present make are provided with a connection of burner with vessel by means of cither a small tapered screw or side catches. In the former case the great disadvantage is that the frequent crossing of thread or screw deceives the
operator, as the screw dues not engage and no proper connection is therefore made, and by operator, as the screw does not engage and no proper connection is therefore made, and by
frequent repetitions of this process the thread is ultimately destroyed. If under such circumfrequent repetitions of this process the thread is ultirnately destroyed. If under such circum-
stances the Lamp by any means be unset the burner immediately separates from the vessel stancas the Lamp by any means be unset the burner immediately separates from the vessel and the lighted wick ignites the spilled oil, and this is the cause of the majority of Lamp twhile one catch is being watched in con, side catches, is even more uncertain, as frequently while one catch is being watched in connection, the other unobserved fails to grip, and leaves no atternative but a certain catastrophe in case of upsetting, and rendors explosion by igmiits aimplicity and consequent cheapness in of the Improved Safety Connection principle are absolute safety. This Lamp has been exhibited at two Exhibitions in manipulation, and its following nwards-(1) Certificate of Merit, at the Trades' Industrial Exhibitiond has gained the Spring. 1s92: (2) First Prize. Gold Jedal at Trades' Industrial Exhibition at Lincoln, December, 1892, and January, 1893.
The Vendor has sunber
The Vendor has submitted the Patent Specification to Mr. J. Fletcher Moulton Q.C, the eminent authority on Patent law, for his opinion as to the validity of the Patent. The follow. I am of opinion pinion:-
nature of the invention the title to the Patent, N0. 4,583, of 1892, sufficiently discloses the Specification refer to tho same the Title, the Provisionul Specification, and the Complete aesuming that the finvention is new, I , that the Specifcation and claims are sufficient, and (Signed) J. FLETCEER MOULTON (Templo).

The Directors anticipate large and substantial returns from the manufacture of tiin Lamp, and also from grants of Liceuces to manufacturers under the Company's Pitank of lamps have been offered for sale by retail, and the result of the Vendor's experimenti this direction whs highly satisfactory.

The Vendor finds that to reap the full benefit of the Patent, labour-saving tools mat \(x\) procured, and this his limited capital will not enable him to do. He has, however, arpeadis considerable time and money in developing the manufacture of the Limp, and nois
been designed by him which will reduce the cost of manufacture to a minimum. Hisgene been designed by him which will reduce the cost of manufacture to a minimum. Higgena
business is now also ripe for further development, and will well warrant the introductiand business is now
further capital,
The Plant, Stock-in-Trade, Fixtures, Manufacturing Machinery and Tools, bave bue valued by Mr. T. B. Fallows (Ex-Mayor of Birmingham), who reports as follows:-
59, Temple Row, Birmingham, 27 th Septomber, 1206

Dear Sirs: Street, Birmingham, and have taken in detail a complete inventory of the whole d \(\mathrm{f}^{\mathrm{m}} \mathrm{m}\) finished and unfinished Stuck-in-Trade, Plant, Machinery, Tools, Patterns, Shop, Olita, ex Warehouse Furniture and Fixtures, and have made a careful valuation of the same i the value of the whole, taken as a going concern, amounts to
Hundred and Seventy Pounds One shilling and Threepence.

Messrs, W. A. Dawkins \& Co. \({ }^{-}\).
Photographic Instrument Makers, Edmund Street, Birmingham. Patent expert, who reports as follows :-

Dear Sir, \(\qquad\) In accordance with your instructio, Lord Street, Liverpoo, nin the Pitant 4,583, of 1892 I underotand from you thio tating against its novelty has beeu discovered. Assuming, therefore, the novelth invention, and as far as I can judge it is new, I am of opinion that the Patent is mupent covers the invention claimed. I also think the invention a good one for the these which it has been designed, and that 3 . Would be a fair Royalty to pay profits owiop tit On the basis of this Royalty, and a reasonable valuation for extra trade proits 1 under
monopoly, I should value the Patent at \(£ 3,260\). The American Patent, which monopoly, I should value the Patent at \(\mathcal{£ 3 , 2 6 0}\).
has now been applied for, should also be very \(v\)
or the Syringe and your Photographic Camera at \(\mathcal{L} 180\).
W. A. Dawkins, Esa,
street, Birmingham.
Youra truls, WM. P. THOMP905.
The total purchase price fized by the \(V\)
tent and other rights (including the Lamp) is for the Plant, Machinery, Stook in Ind £ 600 in fully paid up shares.

The Directors have secured the services of Mr. Wm. Arthur Dawkins, the Yemer, Managing Director for a period of five years, upou terms mentioned in aul agreeam for the 6 th day of November, 1895, and made between John Henry Smith, as Trusther pat behalf of the Company of the one part, and the said W. A. Dawkins of the onetion mit his agreement of sae the existimg Patents that he n
out further consideration.

Arter payment of the purchase money and the promotion expenses it upwards of \(£ 7,000\) will remain for working capital, and having regard to the purchase monsy as comp

The Vendor is the promoter, and will be ropaid the promotion expenses and
ees by the Company in pursuance of the terms of the Agreement (No. 2) set our
The folluwing agreements have been entered into, viz. :
Wilson and Harry But dared
W. A. Dawking of the one part, and John Henry Smith, as Trustee for and on behall d company, if the other part.
Smith as Tristee for and on the Dawkins of the other part wheranf of the company of the onees to serve the
for five years.
There are also various trade and other contracts which may constitute the 38th Section of the Companies Act, 1867, or contracts to the dists, applicants for shares might be held to be extited. Of
Application fer Shares should be made on the form
Application with the amount of deposit. If no allotment is made the
pany's Bankers with the amount of deposit. If no anotmenes than the nu
the balance will be applied towards the amount due on allotment and any
the applicant
opies of prospectus and forms of application can be obtained at the
of the Company, or its Bunkers, Auditors, and Patent Agents
thons can be seen at the o 隽ce of the lolicitor to the Company.
Samples of the lamp and ordonal awarde may be poen at the Registared ompos

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Mr. William Collier, late Gardener at Hillaborough Ball, Shefficld, as Head' Gandener to A. M. Welsor, Req. Whiteley Wood Hall, mear §heffield.
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WANTED, KOSE GROWER ander GHe rienced Maflet Norsery. Must be thorogghly wis under rellaole, energetic, and understan particulapr, to W., Gardeners Chronicle Office, 14 , whild \&treet. strand.
WANTED active JOBBING HANDSson. Florists to the Quenn, Chel pres, S W.
W ANTED at onoe, a smart, intelligent, pous ateady, obligound MAN as SECOND; not under 25 , and Conservalory work. Those who are afraid of mor win not apply. Wuges to start 178. pur week, bohy wid tabies, no mill. Bg letter Park.
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ANTED, - An energetio young yai aso with a slight knowled ge of the cut Flowe Depurn A poly by letter, statiug ed ge ofarences, and ware whe -D. 8. THOMSON \(\triangle N D\) SONS. The Nusseries. Wisble
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5. \(\qquad\) Price 3d

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\section*{NOTICE TO ADVERTISERS.}

In consequence of the alteration of the hour of going to Press, consequent on the large increase in the circulation, it is imperative that all Copy for Advertisements should be received \(B Y\) FIRST POST THURSDAY MORNING at the latest.

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" Mr. Petea Fidiayson, Hamilton, Newcastle, Chry is with much pleasure that I acknowledge receipt of dition of the plans, and express great satisiaction at the conI feel confident that I shall save the whole Lot."
Reealt of devoting all our energies to stock, together with our pure country air and room. What greet satisfaction our plant and cuttings give, not only at home, but all over the orid alike! Send for a Catalogue.

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HOR ORCHIDS of every desoription at to wonable Prices, and eficient men to cultivate th ARD CO, Bouthgat
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\section*{sales nearly every day，in Large and small} Lots，to suit all Buyers．

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On view morning of Sale，and Catalogues had．
WEDNESDAY NEXT．

\section*{GREAT SALE OF SHRUBS．}

An Immense Importation of small Decorative Shrubs evergremen，flow ering tbres，plants，\＆e．，in grand order for present planting．comprising a aplendi variety of RETINOSPORA，CUPRESSUS，BOX，LAURELS AUCUBAS，and other Evergreene，for In or Outdoor Cul tivation；a choice assortment of FLOWERING TREES sevpral hundred RHODODENDRONS，full of Buds；1RIS， PEONIE
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2，000 Eaglish，German，and Dutch Roses to name comprining Standards，Balf－Standards，Dwarfa，and Climbers，including many
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A small Surplus stock of cholce Carnations，Michael－ MAS DAISIES，OSTROWSKIAS，BEQONI AS；splendid HELLEBORTUS NIGER；5000 SPIREA JAPONICA and Palmats．
Lllium Auratum from Japan，Lillum Harrisi from Bermuda： 10,000 south African TUBEROSES． 10,000 beet Berlin M CANDIDUM，ANEMONES．
A Consignment of Azalea indica and A．mollis，from Ghent，well set with buds．
Pyramid and Dwarf－trained Fruit Trees，including APPLRS，PEARS，PLUMS，CHERRIES，NECTARINES， PEACEES，\＆c．．of choice named sorts．Also CURRANTY， GOOSEBERRIES，\＆c．
A gPRCIAL COLLROTION of RXTRA FINE HYAOINTHS， comprising most of the best sorts，specially selected for OROCUSES，rare NARCISSUS，SNOWDRUPS，\＆C

MR．J．C．STEVENS will SELL the above by
 Garden，W．O．，on WEDN
past 12 o＇Clock precisely．

On view morning of Sale，and Catalogues had．

\section*{Thursday Next．}

By order of Mesers．W．L．Lewis \＆Co．，Southgate． IMPORTED and ESTABLISHED ORCHIDS．

\(\mathbf{M}^{\mathrm{P}}\)R．J．C．STEVENS will SELL by Garden，W．C．，on THURSDAY NEXT，Novemher 28 ，Covent past 12 o＇clock precisely，valuable Imported and Established ORCHIDS，comprising－

CATTLEYA INTRRMEDIA ALBA eplendid plant，with two leads．
CATTLEYA BICOLOR LEWISII，
healthy plant；only two other plants are known to exist． Also CATTLEYA TRIANEI，C．LAWRENCEANA，and C． two plants of DENDHOBIUM NOBILE NOBILIUS，the finest form；unflowered D，NOBILE（Lang－Tang），and othere，which are rery diatinet，and from a new district．Choice LELLIAS， CYPRIPEDIUMS，IODONTOGLOASUMS，ONCIDIUMS，\＆o．； all in grand condition，and well established．

On view morning of Sale，and Catalogues had．

\section*{SALES NEXT WEEK．}

DUTCH BULBS，CONTRERETAL PLANTS，ROBES， GREENHOUSE PLANTS，\＆

MESBRE．PROTHEROE \(\triangle N D\) MORRIS will SLL by \(\triangle\) UCTION at their Central Sale Rooms， 67 and 69，Cheapside，London，E．C．，as follows，at \(120^{\circ} \mathrm{Clock}\) each day：
MONDAY，November \(25:-100\) Azalea Mollis， 100 A．indica， 50 Camellias，Conifers，and Fruit Trees from Belgium； Hardy Perennials and other Plants and Bulbs，consieting of Carnutions，Michaelmas Daisies，Iris gerrmanica，Rnglioh－ grown Lilies and imported Lilium auratum and L． Kraetzeri．Californian Bulbe， 500 Dwarf Rosee，and 200 buts
TUESDAY，November 26 ．－Dutch Bulbo－ 1000 lots．
WEDNESDAY，November 27 ：－Dutch Bulbs -1000 lote．
TEURSDAY，November 28 ：－Dutch Buibs－ 1000 lots． 100
Azalons Mollis，well－budded， 100 A．indices， 50 Dracena
30 corypha autrulis，jand 10 K Kentias，fromium Veitchii，
Also rave American Bulbe Calochortia，from the Continent，
Dwarf Rowes，stove and Oreochorti，Liliuma，Carnations，
ELDDAY，November 99 ：－Dutch Balbo－1000，
ORCHIDS－Dutch Bnibe－1000 lots．
On view morning of 8nle，and Catalogsen had．

\section*{Friday Next．}

By order of Mesers．F．Sander \＆Co．，St．Albans Fine Selections of IMPORTED ORCHIDS，embracing LELIA AUTUMNALIS ATRO－RUBENS，the richest－coloured， darkest，largest type known，in fine order．
LeLia MajaLls，＂THe Flor de Mayo＂of the Mexicans． －The blossoms are immense，often over 6 inches in
ONCIDIUM UNGUICULATUM，a free blooming，distinct variety of Oncidium tigrinum ；blossoms in the winter．
PRIPEDIUM BELLATULUM，the largest flowered type yet discovered，with intense purple．maroon spots．
CATTLEYA CITRINA，just to hand；splendid plante，in fine order．with firm plump bulbe and dormant eyes．
A SACCOL ABIUM（？）SPRCIES from Northern Burmah（the banks of the Irrawaddy），a most distinct－looking plant unflowered，and probably new．
A few plants of a SOHOMBURGKIA SPECLES，obtained from the almost inaccessible mountains in which the Rive
E THE SPLENDID DENDROBIUM，
D．SANGUINOLIENTUM，very rare，delicate fawn－coloured blossoms，borne at the apex of the stems－one of the parents of D．shodostoma．The remaining plants of th ONOIDIUM had never been offered in cultivation．
DENDROBIUM NOBILE from ANNAM，and Dendrobium
dengiflorum densiflorum
ONCIDIUM ROGERSII．Fine strong plants of this magnificent Orchid．
Wplants of the new and wonderful ANGULOA ALBA
MANA，provisionally named；and the splendid purple MAGNA，provisionally named；and

DENDROBIUM CRYSTALLINUM
H EMANTHUS KALBREYERII，bright vermilion flowers， EURYCLES CUNNINGHAMII，the Brisbane Lily，a distinct and pretty bulbous plant．A native of Queenslind．
flowered Mexican bulb．
ESSRS．PROTHEROE AND MORRIS will ESSRS．PROTHEROE AND MORRIS will Roome， 67 and 68 ，Cheapside，Lonion，E．C．，on FRIDAY NEXT，November 29，at half－past \(120^{\circ}\) Clock．

Rodmersham Vicarage，near sittingbourne，Kent． SALE of CONSRRVATORIES，GLASS－HOUSES，with all their contents，

MESSKS．JACKSON \＆SONS are instruoted by Rev．W．J．Mellor（who is about to travel abroad），to 1895，at 10 for 11 o＇Clock．Also GARDEN TOOLS and Effects． 1895，at 10 for 11 o＇Clock．Also GARDEN TOOLS and Effects．
including iron roller，three lawn mowers，garden water－barrel includiag（nearly new），two wheelbarrow，\({ }^{\text {，}} 90 \mathrm{ft}\) ．garden hose， garden chairs，seats and tables，trellis arches，\＆e
Catalogues may be had three days prior to the Sale of Mesare ACKSON AND SUNS，Valuers，\＆cc．，Sitting bourne

\section*{Chesterfield．}

T O BE SULD．－LEASEHOLD NURSERY and GLASS ERECTIONS，in one lot，as a going concern， known as The Ashgate Nurseries，Chesterfield，comprising
about 10 Acres of Ground．Honses heated by Hot－water about 10 Acres of Ground．Houses heated by Hot－water
Piping．No Stock need be taken，as this can be sold by auction． Particulars may be bad of Mesers．PROTHEROE Particulars may be had of Mese
MORRIS， 87 and 68 ，Cheapside，E．C．

\({ }^{\circ}\)OR SALE，small valuable long leasehold Greenhouses，well stocked two Vineries，Oucumber－house， Plant－houses，five－roomed Cottage．Low Ground Rent．Lease eighty－six years to expire．Eighty－five feet Glass．Facing main road．All particulars of FLORIST，11，Dafforne Road．
HOR SALE，MARKET NURSERY and 40,000 inhabitants，and wis Manchester，Liverpool and ocher large contres of population． 9 acres choice Land，Dwelling－bouse，fourteen modern Glass houses（nearly 1400 feet run）．Vineries，Tomato，Cucumber， Plant，and Forcing－houses．All efficiently heated and stocked； in full working order，and in one of the beat positions in the Kingdom．－Addrese，PROVINCIAL，Gardeners＇Chronicle Oftce，11，Wellington Street，Strand，W．C．

\section*{Hooton Estato，Cheshire．}

TO NURSRRYMEN，FLORISTS，and OTHERS．

\(\mathrm{T}^{0}\)BE LET，the Productive Gardens of nt stock of Standard Apple and Pear Treeaving The Glase comprises Greenhouse，three Vineriep，Peach，Orchard，Tomato， Cucumber，and Melon Houses；there are the usual Potting Shede，Fruit Room，Office，Gardeners＇Bothy，Stabling，\＆c．，
also good Gardeners＇ also good Gardeners＇House，
For further particulare，apply to Mesars．SMITHS，GORE，
AND CO．，6，Newgate Street，Chester．
To Fruit Growers and Market Cardeners．

TLAET，at Enfield Highway，Middlesex，a or thereabouts，planted with Apple，Pear，and Plum Trees， and Gooseberry and Currant Buehes；and also adjoining same 10 acres or thereabouts of MARKET GARDEN GROUND，with House and necesary Outbuildings，within easy reach of the London Markete．Immediate posse日sion can be siven．
Apply for rent and other particulars，and tor permisaion to Houge，A Mundel．Street，Strand，London．Solicitors and W．C．ELMAS，Eiq．，18，Lower Phillimore Place，Kensington， urveyor．
W ATERCRESS BEDS．－TO LET，about one Railway；two minuteo walk froma station．－Apply by letter，

TECOMA SMITHII．－The fiuest new flower－ ing plant；as easily managed as a Chrysanthemum．It
ucess in Autumn large heads of brilhant red and yallow CGELOGYNE CRISTATA a fine and C（ELOG MNE or two spikes．2s． \(6 d\) ．；stronger， 65 bulbe， 6 spites， 35 ； 100 to 150 bulbs， 8 to 18 spikes，\(s\) ． \(6 d\) ．to 12.6 ． 6, each，
TRUSTEES，late J．STEVENSON，Timperley，Cbehire．
CHPYSANTHEMUM STOOLS of Elaine， 3．per dozen，free on rail．Cash with order．
MR．MUERS，Hockley Nurseries，Hockley．Eesex．
PLUM TREES，－ 2000 of strong well－footed Fruiting Plum－trees，will be bold cheap to clargromed． GEO．GRAY AND SONS，Broz Nursery，Chertuy．
STANDARD ROSES，18s．per dozen RREWARF ROsES，6s．per doz．，leading sorts，OURBNM TREES，Red，Black，and White，28．per doz．Puched，froe
on rail，for cash with order．－B．HOUGH，The Elms，Bisieg．
GEAKALE for FORCING．－Superior seleoted Crowns，80s．per 1n00；under 500，9s．per 100．Ordent to ATWOOD，Grower，24，Lubeck Street．Battereea，8．W．ALPD MILAX ASPARAGOIDES．－－Strong young Stuff in 60 ＇s，yeady for Plantingor Potting－on；all staked． Price \(12 s_{\mathrm{s}, ~ p e r ~}^{\text {P．}} 100\) ；free on rail．Cash with orider，

Herbaceous Calceolarias．－James＇Superb strain．
JOHN FRASER，The Nurseries，South Woodford，Essex，has a beautiful lot of the abore to cffer．The plants are stroag and healthy；they are in \(80^{\circ} \mathrm{m}\),
ready for poting into \(48^{\prime}\) or \(32^{2}\) 。．Price \(200^{\circ}\) 。 per 100 ，pacting ready for potting into \(48^{\prime}\) or \(32^{\prime \prime}\) ．
included．
Usual trade allowance．
100，000 SPLENDID，BUSHY WALL FLOW ERS，to clear at once：－Blood Rod， Yellow Tom Thumb，Black－brown Dresden，all at 1s．Gd．per 100，carriage paid；12s．per 1000．Finest Double German lots，well mixed，1s． 6 G．．per 100，free．

\section*{Orchids－Orchids－Orchids．}

T WO or THREE HUNDRED fine specimed Phalænopsis grandiflora，amabilis，Sanderiapa，ad Bchilleriana；also some fine plants yellow Cypripedium
insigne in bloom，and extra fine plants of Cypripedium Boxali to be sold cheap for cash．Apply to

G．YOUNG，Florist，St．Albans．
50,000
EUON YMUS，Green and Golden，

 25 in ．to 47 in．at special prices．
GOLDEN： 5 in，to 12 in．，at 3 s．to 8 s．per dozen．Cuht whe order． J．J．CLARK，Goldstone，Brighton．
SPECLAL CHEAP OFFER．－ENGLISE O OAK，extra fine， 18 to 15 feet，stout，straight，math shaped，and aplendid roots ；\(\triangle\) AH， 5 to 9 feet；BELCH， 10 te 12 and 15 feet，equal to Oalss ；HAZEL，extra fine， 2 to 3 m 4 feet；PRIVET OVAL，all sizes， 1 to 5 feet，extra cub and transplanted；MANETMI STOCKS，str

B

\section*{ARR＇S ENGLISH DAFFODILS．－The} mast beautiful and fashionable of spring flowert． Descriptive Catalague now ready，sent free on appliestion，
BARR＇S SPING－FLOWERING BULBS．－Send for till Descriptive List，ready September 1.
BARR＇S AUTUMN－FLOWERING CBOCUSES，MRIDOW SAFFRONS，CYULAMEN，SCILLAS，SNOWYLAKRS，th List free on application，
BARR＇S SEEDS for Present Sowing．－Catalogue on ayly \({ }^{\text {cation．}}\)

A NTHONY WATERER respectfully invite from intending Planters an inspocion of the fobiomb well－grown and finely－rooted EVERGREENS：－ ABIES PUNGENS GLAUCA \｛ COLORADO BLUE 8 gBU These are all SERDLINGA．The plants，usually yoit with CEDRUS grafted on the Common Spruce．
CEDRƠ＂M GLAUCA，4，5， 6,7 ，＂and 8 feth
CEDRUS LEBANI， \(5,6,7,8\) to 10 feet
GOLDEN CHINRSE JUNIPER 4 to 6,7 and 8 feet．
GOLDEN YEWS，Soedlings，perfect pyramids \(4,8_{6} 8\) ，null 1 th ＂
PICEA＂CONCOOLOR VIOLACEA \(\}\) ， \(4,5,6,7\) ，and 8 feet．
\(\left.\begin{array}{l}\text { LASIOCẢRPA } \\ \text { MAGNIFICA }\end{array}\right\} 6,7\) ，and 8 feet．
PINUS AUSTRICA
pínus austriaca
\(3,4,5,8\), to 8 feot．
THOUIOPSIS BOREALIS， 5 to 8 feet．
HOLLiJS，GRIEEN，Common，up to 10 and 12 feet
\(\left.\begin{array}{l}\text { GREEN，Common，up to } 10 \text { and } \\ \text { HADGINS } \\ \text { MYRTFOLLA } \\ \text { MOLTLIA }\end{array}\right\}\) up to 10 feet．
GOLDEN QUEKN 4 to 10 feet．
WaTERER＇S，and many other variegated hindh
PERRY＇ 10 feet．WEPTNG \＆with straight atems and
GOLDEN W EEPING \(\}\) fine beadi
YBW＇i，ENGLISH，4， 5,6 to 8 feet，and 38 much

\section*{100,000 FRUIT TREES}

Will be Sold at Perry Hill. Cliffe, near Rocbester, Kent (arj hidiag Cliffe Station, South Eastern Railway), on NOVEM3:,000 standard abn Half-standard Apples, Pears, Plums. and Cherries; 20, 000 Byld win Hlack and Red Currants; 15,000
Gooseberries, 00, 400 Raspberries, 1000 New Plam, Monarch; 500 Pirmaston Duchess on Quince; 3u.00 New Apple, Beauty of Bath, and Bismarck; 25,000 New Strawberry, Royal Sovereign; 50,000 Paxtons and Noble, 15,000 Asparagus, 100010 Myatr's Spridg Cabbage Plants, 200,000 Cos Lettuce Picking Cabbage. \&c.
Catajoguee may be had of the Auctioners, Mossr. PBO

\section*{FERNS!-FERNS!!}

A large quantity of well-grown stuff, in \(2 \frac{1}{2}-\mathrm{in}\). pots, for decorative purposes and for potting-on -Pteris cristata, P. nobilis, P. tremula, P. albolineata, P. serrulata cristata, and other sorts, at 98. per 100. Also, in 48's, Pteris in variety, at 48. 6d. per dozen.

Above prices are for cash with order only. Packing free. An inspection is invited.

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ST. JOHN'S PARK, BLACKHEATH, S.E.

\section*{KENT: THE GARDEN OF ENGLAND.}

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George Bunyard \& Co., ROYAL NURSERIES, MAIDSTONE, Are offering well-grown and finely-rooted Roses at the following cash prices. Package free, Seleotion left to themselves.
GUPERIOR H.P. STANDARDS, \(2 \frac{1}{3}\) to 3 feet stems, astorted, choice, per dozen, 188. to 248 . -standard H.P.'s, to 2 feet tema, choice, per STANDARD or HALF-STANDARD TEAS and NOLSETTRS, per dozen, 24s. to 388
H.P. DWARFS, on Seedling Briar, per dozen, 9s, to 12 s . FDTE CLMBERS for Pillare and Walle per dozen, 98 , to 183 DWARF TEA-SCENTED and NOISETTE, per dozen, 18. CHINA, MOSS, and PROVENCE ROSES, per dozen, 83 . to \(\theta s\).

Copies of G.B. \& Co.'s Fruit List, 6 stamps.

\section*{H. LANE \& SON}

Solicit an Inspection of their Extensive

\section*{NURSERY STOCK}

Covering over 150 ACRES,

\section*{DECIDUOUS AND EVERCREEN} TREES and SHRUBS
in great variety,
ROSES, FRUIT TREES, RHODODENDRONS, FOREST TREES, \&c. All in fine healthy oondition.
DESCRIPTIVE CATALOGUE FREE.

\author{
The nurseries, berkhamsted, Herts.
}

NATIONAL TESTIMONIAL

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MR. A. F. BARRON.
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RFP It is aspeciall, requested that subscriptions and co Mr. B. Wyne, 1, Danes Inw, Sirand, London, W C.
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H. Williams, Victoria and Paradiee Narearier

Upper Holloway, N.
W. A. Lindeay, 17, Cromwell Boad, 8."W. W. J. Fmpeon, Ampthill House Gardeas Sir Hugh Low, 23. De Vere Gardens, 8. W
Protherue \& Morris, カ'̈ and 88 , Cheapaide
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FOR ORCHIDS and GARDENERS L to Grow them, apply to SANDER"8, 8t. Albans. The finem EEAFORTHIA ELEGANS - Good strong ( Plants from store bases. 88. per 100. Tus per 10 O, tree on rail.-WILLIAM WHITELEY. The Nurseries, Hillingdon on rath, Uxbridge.
Awarded First-clans Certificate of Merit.

\section*{GLOXINIA, "AICBURTH CRIMSON."}

THIS is the finest high-coloured variety ever sent out. As ite name indicates, it is a vivid-crimson self, of the highest merit. The flowars are arsot, of the fineet form and substance, of great aixe, and abandantly produced; the habit of the plant fis all that could be deatived.
This charming variety was raised in our Mursery in 1803, and was exhibited for the first time at the Liverpool summer Show, August, 1894, and was much admired by all who \(=\) wit, and was unmimously awarded a First-clase Certificute of Merit.
Having proved that it io reprodeced quite true from seeds. we now offer Seeds from carufully-fertiliod towers at 23. 6d. per packet, pont-fres.
Liberal terms for this aterling novelty, per dozen or per 100 packets, to the Trade, from Measr. NUTTIKG axd SONS, Mesmes. HURST ATD SON, London; or of the Raisers-
ROBT. P. KER \& SONS,
BASNETT STREET, LIVERPOOL.

\section*{EXHIBITION.}

NATIONAL CHRYSANTHEMUM OHRYSANTHRMUMBL OHINESE PRMMBORS, boyal Aquarium, Wentminster. Deo. 8, 4, mad s. Ealing. \(W\).

WHINHAM'S GOOSEBERRY 18. \(9 d\). ; i-year, 22. \(3 d\). t -yarr, 3n, per dozen. Special pricen for large quantitie -H. W. KiRSOPP, Numerymeno, Hexhma
\(T\) O ROSE GR()WERS.-For Sale, SEEDLING BRIARS, otrongo ofr Maiden Lomm. semplet asd

CHEAP COVERT PLANTS, viz, Rhodo per 1 roud-CHARLES WMLMOT, Nurnergman. Darleg Daie,
CHRYSANTHEMUMS FROM SCOTLAND. -We have a very large oollection, embractng all the
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DUBBIE \(A\) ND CO.. Florinta to the Queen. Rothemy
ROYAL SOVEREIGN STHAWBERKY 1 stronk well-rooted ranners. Alvo sir Jowoph Paxton, BASPBERRY OANES.
Norwich Wonder, Sc Carter's Prolific, Semper Fidelio, Apply, JOHN CUIVERS, Histon, Cambridge.
FERNS AND DECORATIVE PLANTS:-(TRADE):-Foran, in 2tinch potes, 8tore and Grome house, 20 best selling sorts, 188 s. 100 ; ditto iagre, in 48 's, 10 beot velling sorta, 6s. doz, strong reedings. 6s. 100, 80s. 1000 : Adi for manking large planty quickly, 16s, and 200, 100: Araline, los. Margueritua, spalias, Grevilleas, Solanumk is \(48^{\prime} \mathrm{B} .68\) dor. Marguerites, Solanume. Erica gracilis, in bloom, in \(45^{\text {ge. }}\) of hyomalis, and Cyclamen, in bloom, 118, doz. Lioto from Packed free. Oanh with onder. - J. SMMTH, Londow Yern Numeries.

MANCEESTER WHOLESALE FLOWER MARKET.

> CUT FLOW\&RS FOR FLORISTS.

GEO. FORBES, the largest Salesman of Cat to SEND CONSIGNMENTS on Noocipt of letter, ielegram, or telephone with quichoat pooible deapatch. Write for whelily National Tolophone, 1060. Fetabliched 1878.
()WEN'S ROYAL CHRYSANTHEMUMS. THE BEST, CHEAPEST, and mont oomplete ALL the LATEST and BEST VARIETIES. A Amarded 25 Medals and 275 First clase Curtincater for LUGUE, Penny Stamp.
R. OWRN, F.R.H.

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To MARKET and PRIVATE GROWERS.

\section*{We hold an Exteneivo stock of all kinde of the aboves ie} first-rate quality, and at reamonable pricus.
Intending Planters would do well to moad for Descriptive

\section*{S. SPOONER \& SONS,} HOUNSLOW KURSERIEN, MTODLFSEX.
TO Nursergmen, Bullder, Local Roardi, Ventrius,
PLANTING TKE OTHERS WHO INTEND \(\mathbf{R}^{O B E R T}\) NEAL, The Nurseries, Trinity tock of FOREST and ORNAMENTAL TRERS, SHBTBS stock of GQREP VINES, FRUIT TREES, CLIMBING PLANTS, \&c.., which being grown in the neighbourboxd of London are especially suitabio for Towa Plantiog. Also an large atock of extra fme SEARALE and RHU BARB, for forcing. OATALOGUES free or'application.

\section*{RHODODENDRONS.}

The finest named hardy varieties, bubly, and full of buds, from \(\mathrm{E}^{2} 710\). per 100, upwards.
CONIFERS, EARDY EVERGREENS, DECIDUOUS TREES, \&c., in large quantities. CATALOGUES on application.

\section*{JOHN WATERER \& SONS}

AMERICAN NURSERY, BAGSHOT, SURREY.


\section*{LARGE SPECIMEN HOLLIES.}

From 6 to 8 feet, well furnished with shoots to the ground. TOHN FRASER, The Nurseries, South WoodC) ford, Fever, begs to invite attention to a splendid lot of cheap Specimen Hollies, which are suitable for planting in large towns or elsewhere. The sorts consist of the common Green, and many of the bent broad-lesved hinds, much as Scotica, Whiteberried, Canadian, Hedgehog, Bay-leaved, Nigrescens, and others. These Hollis have been regularly transplanted, and a © sizes and Prices may be had on application.


\(\frac{O}{0}\)
put ese
joHnson's improved mushroom SPAWN: \(\mathrm{B}^{\mathrm{EING}}\) one of the largest Manufacturers of Mushroom Spawn, and keeping over 100 cows, of pure virgin spawn, 1 am in position to offer the best obtainable portion at zs, per bushel. 8 pecial Prices for Large. HANGER BILL. EALING.


\section*{IF YOU WANT}

FRUIT TREES
That will bear regularly, purchase Apples worked upon our Paradise Stock.
We have 70,000 to select from, and shall be pleased to show them to visitors. TRAINED TREES A SPECIALTY. Catalogue free upon application.
J. R. PEARSON \& SONS,
chilwell nurseries, notes.
Established 1782.


\section*{SHARPE'S VICTOR POTATO.}

EARLIEST of all EARLIES


\section*{RHODODENDRONS}

Well furnished and well budded, with from seven to twenty
buds, consisting entirely of the reliable hardy kinds; the MAJORITY BEING ON THEIR OWN ROOTS, they and without doubt the beat Rhododendrons in commerce.

HARDY AZALEAS: All the most beautiful varieties, varying in height tow if to 3 feet; the plants are covered with buds.

\section*{ANTHONY WATERED,}

KNAP HILL NURSERY, OKING, SURGY,

\section*{LORD PENZANCE'S HYBRID} SWEET BRIARS

Strong flowering bunches from open ground. 1891 varieties, 56. each; those of 1895, 7s. bd. each.

\section*{Full particulars of -}

KEYNES, WILLIAMS \& CO., salisbury.

\section*{RESULT}

Proves more than volumes of print. My Collection of Chrysanthemums has again succeeded in winning the President's Prize for Group of Plants, and the Gold Medal for Table of Exhibition Blooms, at the National Chrysanthemum Society's Show, November 5, 1895. In addition to many other prizes my collection has now been awarded

\section*{5 GOLD MEDALS}
in two jears-the highest award obtainable in each case. I have much pleasure in announcing that I have secured some Grand Seedlings from our two most noted and successful English raiser, Chis. E. Shea, Esq., and H. Briscoe-Ironside, Esq., which, together with my own Seedlings will form a collection

\section*{UNRIVALLED.}

My GENERAL GUIDE is now ready, with reduced prices for all last season's novelties, and contains the following Cultural Articles:-How to Grow Japanese for Exhibition; How to Grow Inourved for Exhibition; How to Grow Specimen Plants; How to Grow for Decoration; How to Dress Incarved for Exhibition; and How to Save Seed. A large number of Growers attribute their

\section*{SUCCESS}
to following the advice given in my Guide, which can be obtained, post-free, for eight stamps. My LIST of NOVELTIES for 1896 will be ready in December H. J. JONES,

RYECROFT NURSERY, LEWISHAM, STE.
THE BEST \& CHEAPEST FUEL for GREENHOUSE BOILERS, STOVES, \& HEATING APPARTITS.


\section*{CHRYSANTHEMUMS.}

\section*{ALL GROWERS WHO DESIRE THE BEST VARIETIES ONLY} should obtain a copy of W. J. COODFRE'S CATALOOUE.
It is the MOst RELIABLE LIST published. (Ready early in December).
Before the blooming season bardly began, Catalogues for 1896 were distributed containing long lists of Foreign Novelties, with descriptions appended, as supplied by the various raisers. Not a tenth part of these had bloomed in this country, and not one in twenty will be worth cataloguing another season. Those growers who are tempted into trying them will be sorely disappointed.
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With the plante you have sent me, it will interest you to earo, at the exhibition held here, I was awarded the "Grand Prix d'Honneur," i.e., the highest award over all other exhibitors, a valuable Sévres Vase, presented by the French President ; aleo two Gold and one Silver Medals. It was gratifying to receive the sesurance from all competent judges that nothing finer than my diaplay had ever been seen in Parie, or elsewhere. Amengst the most admired was your Sunflow er .

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FRIDAY, DECEMBER 13

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THE

\section*{Gardeners Chronide.}

\author{
8ATURDAY, NOTEMBER 23, 1895.
}

\section*{THE LATENT VITALITY OF SEEDS}

M.CASIMIR DE CANDOLLE has lately - pablished an interesting paper entitled La Vic Latente des Graines (Arohives den So. Phys, et Nat.; Bibl. Univers., 1895), in which be comes to the conclusion that if the external conditions necessary for the vital activities of seeds be absent for a long time they may be totally arrested, but yet the seeds may be alive and reenter an active course of existence after, perhaps, an indefinite period. His experiments were conducted in a cold room of a meat refrigerator, having made a preliminary one as follows:Three lots of Peas and Haricot Beans were placed (1) in free air; (2) in a tube of air, but sealed; (3) in pure carbonic acid. After two years (1) had increased in weight, and nearly all germinated; (2) had lost weight, while a smaller proportion germinated; air now containing 11 . per cent. of orygen, and 3.8 per cent. of carbonic acid; (3) none came ap. He asks the question whether the enfeebled vital activities had ceased before the end of the experiment, so that respiration and assimilation had completely stopped; if so, the protoplasm mast beoome quite inert. He believes that to be the case. He now experimented with an intensely cold temperature, having previously determined that Peas, Haricots, and Fennel seed would germinate after an exposure of four days to a temperatare of \(148^{\circ} \mathbf{F}\). He wrapped up some Wheat, Oata, meeds of Fennel, of the Sensitive plant, and of Lobelia Erinus in tin foil. All were well packed in a cylindrical iron box of \(3 \frac{2}{2}\) oubic feet capacity; the lid being hermetioally sealed. This was placed in an open wooden box for protection. The whole was subjected to an intermittent stream of intensely oold air coming direct from the refrigerator, from May to September, 1894, or 118 days.

The cold air was continued from eight to twenty hours per day; the average time being fourteen hours. On the greatest namber of occasions (sixty-eight times), the cold was prolonged for twenty hours. The lowest temperature reached was \(-65^{\circ} \mathrm{F}\), and the highest \(-36^{\circ} \mathrm{F}\).

In the intermediate periods the warming was very slow, for the temperatare moaroely passed freezing-point at the ead of two to three hours, after atopping the machine. Convernely, the oooling of the box was very rapid, as it was directly exposed to the current of cold air.
M. De Candolle asks the question whether the box could oheok the cooling. As an experiment in this direotion, he completely filled a box with oorn. The lid, being hermetically sealed, was then pierced to allow the bult of a thermometer to pass through it, and the hole was then nlagged with cotton-wool. He then observal the thermometer outside a window. The rate of cooling varied much according to the initial tem-
peratures, and in proportion as the exterior air was calm or agitated. Thas, in a strong north-east wind, the temperature of the room being \(18^{\circ}\) Fahr., and \(17.5^{\circ}\) Fahr. outside, it took twentysix minutes to ascend to \(21^{\circ}\) Fahr. On a calm day when it was \(53.6^{\circ}\) Fahr. in the room, and at freezing point outside, it took one hour and eight minutes to descend to freezing point.

But, as M. De Candolle observes, this experiment does not bear much, if any, analogy to the cooling by the air from a refrigerator, for the box was placed in the direct current from it. Moreover the seeds were surrounded by a metallic paper, greatly facilitating the conduotibility of the bor. He thinke, therefore, that not more than a quarter of an hour would be required to put the temperature of the box in equilibrium with that of the oold air. On taking out the seeds, they were at onoe sown. Nearly all the Wheat, some of the Oats, and some Fennel seeds quickly appeared. Of sixtysix seeds of the Sensitive plant, thirteen only came np; while of numerons Lobelia seeds, only ten germinated.
The failure of the seeds of the Sensitive plant was not solely due to the cold, as many failed to germinate, while many Lobelia plants grew in a control experiment. The conolusion the anthor arrived at was that life, as expressed by vital functions, was completely arrested for a time; the protoplasm was inert, and could not either respire or assimilate. The cause of some being killed was that their protoplasm had not yet become completely inert.

If this result be true, then, one would expect that seeds could be maintained with impunity in a medium unsuitable for respiration, provided there were nothing whioh could exert a deteriorating effect upon the internal ohemical prooesses, as does osrbonio soid.

He , therefore, tried the effect of plunging seeds in mercury: thas, 8 grains of Wheat were placed below 2.5 em . of meroury for one month (October 19 to November 19). Of these four only germinated. Of 5 grains of Wheat under 13 cm . of meroury, from November 27 to Deoember 28, four grew. Of 5 grains of Whest ander 5 om . of meroury, from February 5 to May 5, all grew. Similarly 13 grains of Cress, ander 5 om of mercury, for two months, all germinated.
This experiment, therefore, as that with a low temperature, shows that seeds oan exist in a state of complete vital inertia; and that the internal changes of metabolism can be arrested, as long as the necessary external conditions of temperature, moisture, \&c., are withheld.
M. De Candolle thinks that this state of chemioal and vital inertia may last, perhaps, indefinitely. He then gives the following oases in illustration:-M. A. P. De Candolle mentions a case where grains of the Sensitive plant germinated very well aftor apwards of eixty years repose (Physiologie, p. 621)。Girardin has seen Harioot Beans germinating whioh were taken from the herbariam of Tournefort, where they had lain for a century. In 1850 Robert Brown sowed, for cariosity, some seeds from the collection of Sir Hans Slomne, 150 years old, several germinated, as for example, one of Nelambium speciosum, of which the plant is still preserved in the Nataral History Museam. He refers to the popular notion of "Mammy Wheat" having germinated, only to refute it, adding, that it appesars that the grains were sterilised before being pliceed in the tomb-but he doss not give the proof of this. The present writer finds the starch grains to be perfeotly sound, and to colour readily with iodine; so that the grains could not
at least have been boiled. The most extraordinary oase to which he refers was observed by Prof. De Heldreich (Garten Flora, 1873, p. 323), the Director of the Botanic Garden at Athens. In botanising aboat the mines of Laurium be discovered in 1873 a new species of Glanoium, G. Serpieri. It made its appearance from under a thiok layer of voleanic scoria, to which he would assign a date of 1500 years. He concludes with a reference to the investigations of M. Peter, who took soil from the interior of forests, and, after taking every precaution, found that soil from ancient forests gave rise to woodland species only; but soil from reoent forests supplied species of open plains and fields, acoording as the forest had replaced these respectively. Admitting that his experiments did not decide the question, M. Peter thinks it would be safe to allow at least fifty years of duration of arrest of vital activity in the seeds baried in the soil of forests.

\section*{New or Noteworthy Plants.}

\section*{CIRRHOPETALUM ROTHSCHILDIANUM, \(n s p\).}

AT the meeting of the Orchid Committee of the Royal Horticultaral Society on October 15, the Hon. Walter Rothachild exhibited what was unanimously agreed to be the handsomest of the plume-bearing mection of Cirrhopetalum, and under the above name it was awarded a First-class Cortificate-an honour only once before accorded to a member of this singalar genus. The plant was received from an explorer somewhere in the hills beyond Darjeeling a few yeara ago, but owing to its long and slow journey it, together with a few othera, chiefly new botanical Orchide, arrived in so withered a condition that only this season, after caroful nursing, has it succeeded in flowering. As the cultivated pseado-bulbs are acarcely one-third the sizg of the imported onen, it is but reasoable to in'er that the flowers, beautifal though they are, will atill improve as the plant gains strength. The paendo-bulbs vary in form from ovate to Pear-shaped, each bearing a single fleahy light green leaf, more or less diatant on the rhizomes. Scape erect, 8 inchen in height, baaring at the top a one-sided umbel of flowerv, each over 6 inches in length, and exceeding 1 inch across the broadest part of the lower sepals. The prevailing colour of the flowert is bright crimson-parple, some blotches of clear yellow appearing on the sepals. The cacullate upper sepal is yellow with parple lines, and with marginal fringe and a very anaitive plame of a parple colour at the apex. The petale are narrower, bat similarly coloared and decorated. The lower sepale show little other colour than rich crimson-parple, the ame hae pervading their slender tail-like appendages, which tometimes intertwine, and at others are free. The triangular, grooved, hinged labellum is parple, and the whole flower so remarkably sttractive as to command attention even from those who profess to care for nothing bat the howiest Orchids. Its neareat affinity seems to be C. Collettii, Homal.

Caytheya labiata Broomeasa, n. var. This is one of the finest of that best aud most urefal section of C. labiata known as "autamnflowering." At a glance its gorgeons flowers remind one of C. Wartcewiczil (gigas), there being in this a similar broad expanaion in the front of ite velvety crimson-purple lip, which also bears on each side the roundish cream-coloured blotch urually seen in C. Warceewiczii. The broad petals expand to nearly 8 incher, and both they and the aepale are of a warm rosy-purple, the venation being diatinctly traced by a darker tint of the asme colour. It was lowered by Joseph Broome, Eiq., Sanny Hill, Llandudao (grower, Mr. Shill), who ir not only very fortunate in getting fine varieties of Cattleyas, but is also an adept at cultivating them up to their besto James O'Briex.

A N N U A L S
Not only in every gardening paper, but slao in conversation with any member of the ancient craft, do we frequently hear the pithy remark on some floral or frait exhibit: "Ab, they're what I call well done ; " or Mr. -- , gardener to His Grace the Dake of Blankshire, exhibited in mont clawes, ked it is needless to ay all hir exhibits were thoroughy "well done."
To confine my remarks to one very humble clau of plants, though one more often ill done than the opposite, "annuale," it will be found that there is rcarcely anything a gardener or amatear take in hand that will more liberally repay care and proper cultivation.
The average amateur, and, I may an well asy it u think it, nine out of ten professed gardenern, look upon annuals from such an obtuse angle that rurely do you see a genuine attempt to get the bett realla out of these most varied and in most cates elegant, not to say beantiful, denizens of our gardens.

For the hardy kinds-to neratch a need-drill or circle in the ail of the border or bed, or to now tho seed broadcast, and then rake in, conatitates the total that is aupposed to be necemary to get a good renalt, the young seedlinge come up, and then are left to take care of themselven. It may be, if the annual sown is what is termed half-hardy, that tho seed is nown in a box or pan, and placed to germinate in a hot-bed, or on a thelf in the greenhouse, bat even then eventaally the poor tender nurselinga are left till they being sown thicker than should be, become drawn, and get woody and hard, while the pan or box gets fall of roots; and when the time comes to transfer the reedling plants to the bede or bordert, they are aickly, apindly, and showing immature bude or blosnom--in fact, they are only fit to be put on the rubbish-heap, as they cannot now repay farther troable, and if planted out will only lead to disappointment. Poor thingo, they are " ill done."
Bat let us look on the opposite of this. I have in my mind's eye a young man, whose ambition and deaire it is to neglect nothing he has under his caro and who, like the deacon's wonderfal chaise, has no weak point, a maxim with him being, and it it a capital one-" Worth doing, worth doing well."
Beginning at the foundation, he treats hits soilto a generons coat of half-decayed dung, leaving thii on all the winter, and then digging it in. As soon whe the soil has "sagged," i.e., nettled down to ita unal level, selecting a d-y and still day, he jutt atirs the arface with the Datch-hoe, and then drawing a drill, of a depth adapted to the size of the seed to be somp, he commits the wonderfal germs to the carre of mother earth, rakea in the noil carefally, and than gently treade the earth firm around and above the seed. If the weather be warm and showery, the minate cotyledons (seed leaves) will soon appan above the surface, and continuing growth will be rapidly followed by the true leaves, Now the firt thinning is made ; and after this is done, should the weather be dry, a slight watering with a fiee-rote pot will again settle the disturbed noil, and give the young nurselinges a further impetas to grow. Room to develop themselves fally is thav secared, and the greater distance in reason the planta remain sparth the better the final result. The laet thinning mis bo made when the first budu appear, when, if thees directions are followed, the seedlinge will be atardy, evenly balanced and grown, and able to take care of themeelves, rarely needing any aticks or ties.
The grower will now be rewarded by plante amply clothed with healthy, well-developed foliage, mationg them even at this atage protty objecte, for the majority of hardy annuals have elegant foliaged When, however, they flo wer abandantly, with encl flower well developed, the ample reward for all care will be reaped. Many whonever anw annanil once grown will be astonished, and all will at onfer concede that they are "well done." The dwarfer Clarkias, Godetias, crimson Giant Mignonette, Esehacholtziar, Schizanthus papilionaceat, she making single apecimens 18 inches high and the esme through; while exch coarreer-growing abjoets
ns the annual Cbrymanthemums, Malope, Lavatera, Bartonia, Cacalia, Calliopsie, Calendula plavialis, Campanula macrontyla, Centarrea deprena, Entoca,
flower, and Whitlavia will range from 1 to \(2 f\) feet. One can scarcely realise the rat difference in appearance they prenent when cared for, instead of

 ( BER P. 60\%)

Hibiscna, Emperor Larkapur, Love Lien Bleeding, Lupins (in variety), Martyniap, Nemenia, Nigella, Shirley Poppy, Prince's Feather, Miniature San-
being neglected; on the one hand being really henduome, ffective, and useful, but on the other little better than mere weeds. Thomas Bunyard.

THE WHEAT CROP OF 1895.
Up to October 20,1894, on which day the experimental Wheat was Bown, the autumn was favourable for agricultural operation. After that date much rain occurred in some parte and but little in others. The winter also was protracted and severe, and to a certain extent injured the Wheat plant.
The following Table nhown, in the unual form, the produce of Wheat on the melected plota in the experimental beld at Rothamsted for 1895, which is the afty mocond year of the successive growth of the crop on the eame lind. It aleo given for comparison, the average produce of the same plote over 10, 33, and 43 yearn, 1852-0 1 incluaive.
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Yean.} & \multirow[t]{2}{*}{} & \multicolumn{4}{|r|}{Artilicial Manarem} & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} \\
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\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline 1805. & 10 & 436 & 323 & 40 & 821 & 35 & 2911 \\
\hline \multicolumn{8}{|l|}{Averages :-} \\
\hline 10 years 1885-94 & 12] & 89 & 34 & 8it & 364 & 351 & \(209\left({ }^{2}\right)\) \\
\hline 38 yoars 1852-84 & 18 & 3931 & 327 & 361 & 381 & 85 & 27\% (3) \\
\hline 49 years 1852-94 & 13 & 348 & 331 & 304 & 361 & 851 & \(278\left({ }^{(4)}\right.\) \\
\hline
\end{tabular}

Weight per Bubael of Dresaed Graim, ib.
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline 1895. & 62] & 631 & 62 & 631 & 65 & \(62 \%\) & 62 \\
\hline \multicolumn{8}{|l|}{Averages:-} \\
\hline 10 years 1885-94 & 59\% & 614 & 61 & 60 & 602 & 008 & C03 \\
\hline 33 yearn 1852-84 & 58 & 601 & 391 & 598 & 58\% & 591 & 591 \\
\hline 43 years 1859-04 & 581 & 601 & 508 & 501 & 394 & 801 & 801 \\
\hline
\end{tabular}

Total Straw, Chaff, de., pler acre, cwts.
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline 1895. & 61 & 818 & 22 & 80 & 251 & 25 & 213 \\
\hline \multicolumn{8}{|l|}{A verages:-} \\
\hline 10 years 1885-941 & 8 & 358 & 813 & 397 & 388 & 361 & 261 \\
\hline 38 years 1852-84 & 112 & 818 & 838 & 40 & 418 & 883 & 27. \\
\hline 43 years 1852-84 & 101 & 828 & 837 & 402 & 41 & \(88\}\) & \(2{ }^{\text {T }}\) \\
\hline
\end{tabular}
(1) Equal to 81 bunhels at 601 lb . per buashel.
( \({ }^{2}\) ) Equal to \(29 \frac{2}{3}\) bushels at 601 lb . per bushel.
(2) Equal to 208 bushele at 00 lb . por buehel.
(i) Equal to sil bushele at 00 Ib . por buahel.

The seed having been sown in October, the Rothamsted experfmental crops suffered comparatively little from loes of plant during the very eevere weather in January and February. Following the much more than average produce of 18 bushels grown on the unmazured plot in 1894, the Table shows that in the present year the yield was only 10 bushels, which is considerably below the average yield of the plot. On the other hand, the land manured every year with farmyard dung gives, this year a produce of 434 bushele, of more than 68 lb . per bushel, which, if reckoned at 60 lb ., is about 11 bushels more than the average of that plot; and the crop was gencrally selected by those who visited the field as much better than that by any of the other manures. The selected artificially-mamured plots give in fact an average produce considerably be'ow that of the dung; partly owing to injury in the spring to the piant on piot 16 , which receives besides mineral manures a large quantity of nitrate of soda; and as happens in some seasons with such large applications of nitrate, the surface soll became very moist, and when it was rolled in the apring it clotted, and the reault was injury to the plant, and defective growth, whilst the leaves had a very dark green colour.
The chief features of the experimental crope this year are high quality of grain, and a very small quantity of atraw, and much the same may be said of the crops of the country generally. Whatever may be the actual weight of the bushel grown, farmers are in most districts required to deliver 69 lb ., and fortunately this year a measured bushel will very frequently weigh 63 lb ., and British grain will be in request by millers. The shortness of straw is, however. a great misfortune, especially since the value of the straw for thatching and other purposes, is stated to be a chiof reason why many bushel of the grain on our selected plota was close npon 631 b , the average produce of 293 bushels corraponds to 81 buehele at the official weight of 60 Ib. In compering the estimato 31 buthele so arived at with thers five irrespectivels of
 weight por bushel, which than yoar would in mayy caters be as much as 63 lb ., and in othern perhaps reckoned at that weight, it ahould be borne in mind that such entimates would this jear irequently represent about 13 bushel more if reckoned at 00 lb . per bushel.
Adopting, for the sake of argument, the average produce o our selected plots an indicating the average produce of the United Kingdom, the question arises what will be the yield of the country, and what will be our requirement from other sources? A careful study of the climatic conditions of the harvent.year would point to the conclunion that they were at any rate not unfavourable for a full average crop of gratin where the moil conditions were favourable. Indeed, the Table shows that without manure the produce was much
below the average, with farmyard manure much above average, with the highest artificial manure also above average, but with the others below average. It would seem that the result was much the same in the country at large; that is where the condition and the cultivation of tine land were good, more than average crops have been obtained, and where they were bad there have been less than average crops. The very small area of Wheat grown this year is doubtless partly due to the wetness of the autumn; and if we knew how much was got in badly, or sown ton late, we might be able to make more confident estimate of the yield of the country. At any rate there is reason to fear that it will prove to be below the yield we have recorded.
Although there is at present more labour and time spent than formerly to ascertain the produce of our Wheat crop, the question as to who is to benefit from the information when it is ohtained, must now frequently suggest itself to commenced until comparatively recently, the yield of the hom Wheat crop was an important factor affocting the supplies which we received from other countries; and the rise and fall in our own produce was watched with great interest by both bome and foreign growers as well as by dealers. After the bad Wheat crop of 1860 , the imports of wheat increased from 43 million quarters in the previous harvest year to \(10 \frac{1}{2}\) million in 1860-61; while after our great Wheat crop of 1863 and 1861, the imports fell from nearly 91 millions in 1862-3, to a little over 7 millions in 1863-4, and to about \(5 \frac{3}{2}\) millions in 1864-5. It will he of interest to show on the other hand how little the yield of our home-grown wheat influences the foreign supplies at the present time. wheat influences the foreign supplies at the present time.
The Board of Agriculture estimate of the yield of the Wheat The Board of Agriculture estimate of the yield of the Wheat
crop of 1891 in the United Kincdom was \(30 \%\) bushels of indecrop of 1891 in the United Kincdom was 307 bushels of inde-
finite weight, which would probably represent about 32 finite weight, which would probably represent about 32
bushels at 60 lb . per bushel, our own estimate being 33 bushel at 60 lb . per bushel. As the imports with which we have to compare the home produce are reckoned at 60 lb , it will be more convenient to adopt by way of illustration our own estimate, which was obviously not much higher than that of the Board of Agriculture would be at the same weight per bushel. Now, deducting 2 bushels per acre for seed per bushel. Now, deducting 2 bushels per acre for seed reckoned on the area of the 1894 crop, we last year estimated
that re million quarters would be available for consumption from the home crop, and that rather more than \(21 \frac{1}{2}\) millions would be required from stocks and imports, to meet the requirement for consumption at 6 bushels per head, and that the total requirement so estimated would amount to 297 million quarters. But the actual imports within the harpest yoar 1894-5 were nearly 243 million instead of only \(21 \frac{1}{2}\) million quarters, as estimated to be required. According to these quarters, the total available supply from home and foreign figures, the total available supply from home and foreign
sources would amount to about 32 million quarters, leaving A surplus of more than 3 million quarters to be otherwise Parplus of more than 3 milion quarters to be otherwise ever, that the area under the crop in 1895 was more than 500,000 acres less than in 1804, upon which the above calcu-
lations are founded. Adopting the number of acres now lations are founded. Adopting the number of acres now
recorded as under the crop in 1895 (though it is said that some which was sown was afterwards ploughed said that amount required for seed was less than was lod upl the mated, leaving of course more available for consumption ; and if we assume the previous calculation to be so corrected, the if we assume the previous calculation to be so corrected, the
result would be that the total available supply from home and result would be that the total available supply from home and
foreign sources would amount for the last harve jear to 32 , foreign sources would amount for the last harvent jear to \(32 \frac{1}{2}\),
instead of \(32 \frac{1}{3}\) million quarters, and the surplus would be instead of \(32 \frac{1}{3}\) million quarters, an
rither more than 3 million quarters.
It may be stated that our imports of Wheat last year reached on mount equal to feeding five-sixths of our population. With favourable seed times, our own area under the crop may indeed increase more or less beyond that of the past year; but unless growers over some large areas of the world find that it does not pay them to deliver Wheat into our ports at the prices current at the time, our own growth of the crop cannot be xpected to show much life, or to be the importon cannot be British agriculture which it was before the severe competition foreign producers in recent years. J. P. Lawes, Rothamsted October 31, 1895.

\section*{BERLIN}

\section*{GERMAN \(v\). BRITISH CYCLAMENS.}

Ar a recent meeting in Berlin there were exhibited Cyclamen pernicum grown from Englifh seeds. Besiden these, some German sorts of the same plant were exhibited. The Eaglish worte were the following:C. persicum hybr. and C. p. h. parple, from Mearr. H. Cannell \& Son of Swanley; C. p. Crimson Queen, Duke of Connaught, giganteum roseum compactum, and Rons Morn, from Mesurs. Carter \& Co., London; C. p. Brilliant, Criman King, and Mauve Queen, from Mr. George Reid of London. The German \({ }^{\text {morte }}\) were:-Käthchen Stoldl, pure white ; White, with carmine eye; Rosa, from MarienChal, stold at bright dark-parple form from Mr. C. Stoldl at Hamburgh. The plants were grown by a Cyclamen apecialist, M. Sehwarzburg, at Pankow, near Berlin, who grows every rear at least 4000
to 5000 planta. The object of the exhibition
to ascertain whether the Englich sorts are so much better than the German ones, that it would be desirable to introduce English Cyclamen blood into German cultares. A year ago similar trials were made with English Primula chinensis, which gave the result that the English sorts were in some way much better than the German ones. This I mention to show that the German gardeners do not hesitate to acknowledge the beat even when it come from abroad, and that they by no means aesert that all German things are best. On this occation not one of the English Cyclamens could rival the German varieties; indeed, the flowers were so little satisfactory compared with those of the German sorts that they would rank after all otherv. Bat not only were the flowers compared, but also the leaves, I do not know whether in England worts with self-coloured leaves are preferred [ No ]. Here, in Germany, leaves are desired which have a rich marbling; the more they resemble thone of C. hederefoliam the higher they are valued. The English sorts were robust and very healthy plante, bat the foliage was green, and therefore also, like the flowers, of less value. As Mr. Schwarzburg remarked, the reason for the superiority of the German sorts is that German Cyclamen growers do not buy their seedy, but raise them themselves. They select from their whole stock of many thoassind planta only some twelve to twenty plantz, for need-growing. By regular selection during many years, they have raised sorts which are accounted excellent for their pure colours (the Eaglish sorts by no means showed this quality), for their very large size (the German orta are moatly about one-third to one-half larger than the English ones) [!], for the good bearing of the flowert, and for the good colouring of the leaven, which are also of good habit. Mr. Schwarzbarg asid it may be ponible that English growers have a different method of cultivation to that of the German gardeners, and that he would much like to learn the Engliah plan, so as to make a further trial. During the debate a seed merchant, who is also a apecialist in Cyclamen cultare, Mr. Van der Smissen, of Steglitz, near Berlin, remarked that there are in Germany four centres of Cyclamen culture-Berlin, Hamburgh, Frankfort-on-Maine, and Dresden. The latter place prodaces sorte which differ notably from those of the three other placen. He remarked also that the German weeds cost about one-third less than the English sorts. Whilat among the above-named Engliah sorts are nome, of which a thousand seeds cost £3 15s, the beat German sorts cost £1 per 1000 seeds. To these general remark, your correspondent would add a hope that Eaglish Cyclamen growers will visit the great international exhibition in the apring of 1897 at Berlin, where they may nhow what first-class English-grown Cyclamens are. Perhaps some English Cyclamen growers will be kind enough to send some good flowering apecimen now, that they may be compared with oura. Should it interest any of the English growera to learn how Cyclamens are cultivated here, I shall be glad to give information. Plante with 100 and more flowern are by no meann rare. Only by interchange of knowledge is progrens ponsible. It is not for one or another to hold a monopoly, but it is for all gardeners to make une of the experiences of the auccessful ones. That is why it in so much wished that English gardeners should come to the large exhibition with their products. We shall learn from them, and we also can promise that Euglish gardeners may here learn a few things from at,
The antumn here is this year quite an abnormal one. Carionsly enough, though the average day temperatare for some weeks hae already been above the normal one, a great many trees and nhrub are atill green, a fact quite unprecedented here at the beginning of November. In many places Dahlia variabilis is atill flowering in the open air, whilst in other year, these plant are killed by frost four weeks earlier. The reamon is, that we have not yet had a mevere froat, and that the plants are gradually accustomed
to a lower temperature. It would be intereating to
try if plants grown from seed which ripens now, would be more resiatent to our climate than the mother planta. A plant that very seldom froita here is Sophora japonica, which this year beara much fruit; whether these will ripen is another question. Paulownia imperialis has flowered here this year, also a very rare occurrence. I do not know whether it has ever done so before.
Chrysanthemum nipponicum is a plant that nome time ago was sent over to us an a very fina novelty. It is in flower here now, bat it is worth nothing. The plant itself, with its thick fleshy leaves, is interesting, but the flowers are not good.
Saintpanaia ionantha, or, as it in called here, the Violet of Usambaria, is, on the contrary, a mot delightful and very satisfactory plant. Seedligga raised in January were in fall flower in June, and are atill flowering now, Nov. 1 , in my room, Cer. tainly this Gemneraceous plant is one of the betn novelties brought forward of late years. Besides meding freely, it is easily to be propagated, like a Gloxinii, by leaven. The culture is quite easy. It is to be hoped that East Africa, eapecially Kilimandzaro and Usambara, will furnish us with ome other worthful plants for our gardens. Prof. Volkens, who he lived for one and a half year on Kilimandzaro at an elevation of 1550 mètres, at Marangu, showed at the last meeting of the Berlin Horticaltaral Societs, a good many mont interesting plants, which grow at an elevation of 4000 mètres and higher, and which would be quite hardy here also. The mout interesting ona was a new species of Rubus of the Blackberry groap, with fraits 2 inches in diameter, and of a yellow colour. Alao a nem Anemone is very remarkable. Very large is the number of Monocotyledonous planta from Kilimandzaro which are worth growing by ud, Amongat the Polygonacex, the moat remarlable is Rumex nervona var. unambarensis, a climber with atems 8 inches in diamater, with enormous pure purple frait-talks. It grows at an elevation of 2800 mètres. The Killmandzaro plants are of the highest value, eapecially for Eaglish gardeners. Professor Volkens remarked that for eight monthe the oun is not to be seen, because clonds, and fogn, and rains darken the aky. The rains are not thunderstorms, an in other tropieal regions during the rainy neasons, but mild raios The total rainfall observed daring one year, at an elevation of 1550 mètres, was 1900 mm . The highest temperatare is not equal to that which wo have in the aummer months. Potatos grew very well, also all our other vegetables. Vines do not ripen; it is possible that the damp is the canes of thic. Barley grows very well ; but when the main stalk begine to how its ear, the plant ramifee, and young shoots grow up, no that afterwards all atages, from young shoots to ripe ears, are on the mme plant, which gives much trouble in harvesting. Professor Volkens thinke that this may be altered by selection of the plants and by raining local sotha U. D., November.

\section*{FRUIT GROWING FOR SMALL \\ GARDENS.*}

First, having settled upon the size of the plot of ground we can apare for growing Apples and Pum, the next point to decide is what shape our treel shall take, as the number of trees to be planted in a given plot will depend upon their shape; then, having finally settled upon the number of trees we are ablo to plant, the next most important atep to decido is the kind to grow, and in what proportion. Thisw shall find a most difficult task, for, although we may know of several good kind ourselven, it will not help us much, as most of these are grown entirely for the markets in large orchardn, and are wholly anauitable for growing in small gardent, owing to the large size the trees attain, besides which many of these orchards have been planted for the last gene ration or so, and other kinds of better flayonr, and better keeping qualitien have superaeded them. A an instance, we probably all of us know what a good

Fxtracts from a Paper read before the Strestham Agaseíz Society, on Oct. 25,1895 , by Mr, J. C. Walthat=,

Apple a Blenheim Orange is, and I have known eeveral, for this reason, who have grown it without making any enquiries about it, and have been terribly dianppointed, for the Cox' Orange Pippin has entirely taken its place; first, becane it comes into bearing when only three to four years old, whereas the former cannot be got to bear until it is folly twelve years old; and, secondly, it bears more regularly, and keepa a month longer and better than the Blenheim Orange does, and without doubt is a far aperior Apple all round. Again, if we look through catalogue, we find some 150 to 200 apparently more or less good varietien, so that we do not get much information from thin source. By far the best plan, when it cas be adopted, is to go to a good grower, and get him to give you a ammple or two of each of the bent kind ripening each month, and most uitable to the growth of trees you propose to plant; by this means one is able to jadge for onenelf of the quality of the fruit, and suit one's own individual tate.

\section*{Tratinge,}

There are some five or six methoda in general ute for training the trees. Firat, we have the orchard atandard, which, owing to its size, is quite nasuitable for mall gardens, as they not only take away too mach natriment from the ground, but prevent light and air from getting to the plants, \&ce., in ite vicinity. As it does not come into bearing uatil some five or six yeara old, the amateur atandard is not infrequently grown. It is similar to the sbove, bat the straight atem is covered with short spars, which are allowed to prodace frait antil the apper portion of the tree is in full bearing, when they are cat off, thus giving us a bearing tree some two or three years earlier.
Where apace in a amall garden is very limited, the walk is often bordered by espaliera; these are trees grown on a atraight atem, with branches about 9 inches apart running at right angles to it in the amme plane, and are trained and kept into position by being fastened to wires atretched from post to post. They nually bear well, and if heavily laden, there is no chance of the branches being broken, nor is the fruit so eavily blown off in a high wind; but the greatent objection to this method of growing trees is that it wereens the garden far too much from light and air, and plants will not thrive unless there is plenty of air passing through a garden ; in fact, they act, in this respect, as a second wall to the garden, as the branches are to close together. Many Apples and Pears will do very well on this principle when grown against a south or west wall, but are very liable, when the stalks are long, to get damaged by rubbing against it; beside which, the un can ooly get at one side of the fruit, and the branches are reduced in bearing surface by exactly a half, as those bude next the wall cannot, of course, come to matarity. Such treeashould be planted about 15 feet spart, and ahould never bo tied permanently to either wall or wire until they have been in the ground for nome four to siz weeks, and have had time to thoroughly settle, as otherwise many of the amaller branchea will probably become damaged through the strain put apon them by the tree sinking. Trees are also grown againet wires or walls in the shape of fang, but there in more troable in training these than eapsliere, and they do not cover a given aurface to well and evenly as the former do. For Goomberries, Cherries, Peaches, \&c, this method is, however, more aitable, as the growth of thene kinds of frait trees is not mo robust as with Pears and Apples.

Borders are sometimes edged with trees in the form of a letter T , the two side branches forming the top of the T are fastened to a wire about 9 incbes to 1 foot from the ground. But these are not much good, as they have to be transplanted so often to prevent them cankering; they are aleo very liable to be choked by surrounding plants, and the fruit and wood do not become properly ripe. They should be planted about 12 feet apart.
Hedges are made of cordon trees about 2 feet apart, which are also uned for covering walls. These are trees with straight atema apon which no branches
are allowed to develop; so soon an the would-be branch is about 6 inches long it if cat, and not allowed to grow any longer, tha the atem in time becomes thickly atadded with apars, as they are usually called, upon which the frait is borne. They have to be continually traneplanted, anless they are allowed to grow to a great height, otherwise they grow too fast and will canker through being praned so much to keep them within bound. It is a growth of tree which is not to be recommended except under special circumatances, auch as a high narrow wall where no other kind of trees would be suitable, or where everal kind of fruit are being tried for experimental parposes and little room can be given to them. They are uaually growa in an oblique form, no that the fruit hange away from the atem as much as porsible; they mometimes take the form of the letter U.
We now come to the buch tree, which requires but very little attention, fraits well, bet is very lisble to apread about too much for a mall garden, but there are a few kind of fruit that will grow in no other way; when such kinds are required, there is no other alternative than to grow them in this form. (That now before you is a Jargonelle Pear about ffifteen or sixteen years old, bears regularly every year, and has only been transplanted once during that time.) If thay are planted cloner than 4 to 5 feet apart, they would require to be taken up every three or four years.
The best of all trees, and undoubtedly that most muitable for amall gardens, is the pyramid. This tree has a straight atem through the centre, with the branches radiating out from it on all sides, and when once fairly started, will keep growing in this shape with but very little troable and attention other than pruning regularly twice a year. These trees, if not allowed to grow too thickly, produce the fineatflavoured fruit that can be got, and, if proper sort: are grown, will fruit regularly every year. The plan I myaelf adopt is to plant them 5 leet apart all wayp, and not allow any branches to grow lower than 12 to 15 inches from the ground; dwarl Beans, Peas, Spinach, Lattace, \&ce., are then grown in row: between them.
Having decided upon the shape of the tree we wish to grow, the next point to wettle iz whather we will graft our own, buy young trees, or thowe which are already et with fruit-buds.

\section*{Grafting.}

Grafting is very intereating work, bat not to be recommended except for experimental parposen, an one-year-old treey, or "maiden," as they are termed, cost only 10 d . to 18. 6 \(\%\) each, and will commence to fruit in two or three yeare; fruiting trees cont from 3s. each upwards, and will bear the next year if kept well watered daring the dry season, thereby saving both time and labour. It may not, however, be out of place here to describe the method of grafting. Young well-rooted trees about the sizg of one's little finger, usually known as atock, are procured from any grower, and when well-established, are cut down in an oblique form to withinaninch or mo of the ground, the catting or scion is taken from the tree just as the sap it rising, and also cat in an oblique form, the two fresbly-cat parts are then bound tightly together, care beiog taken to see that the bark of one is touching the bark of the other, so that the sap which rises between the hard wood and the bark can make an easy paseage through from one to the other; it will not matter if the barke on the opposite side do not touch, bat the nearer thay are the better. Clay, well-kneaded with horsshair, is then packed closely round the joint in the shape of age to keep the sir out. If this is covered over with a Rhabarb leaf it will allow it to dry more gradually, and probably prevent it from cracking; all cracks must be filled ap at anon as they appear. Various atocks are ueed according to the tree which is to be grafted on to them. Apple is grafted on to Qaince, Pear on to Paradise, and Cherry on to Mahaleb, Plum on Massel. Old, wornout trees can profitebly be made nas of by catting back half the branches to within 6 inches of the
ntem; on to these are grafted nome two or three acions. The year following the other balf ahould be cut back and grafted in the anmo way; they not onfrequently commence to bear the next year.

\section*{Planting.}

As the fature of the tree depends largely upon the way it is planted, too much eare cannot be expended upon this. The holes to receive the new trees ahould be dug nome time before they arrive, so that the earth can be got into condition by allowing it to absorb an much oxygen ae possible; and it ahould be only jast as deep as will allow the tree to be buried to the same depth a formerly, but muat be large enough for all the roots to be laid out atraight on all sides. Care ahould also be taken that the roote do not become dry or touched by the front during removal; and before they are planted all damaged roote should be trimmed with a aharp koife, otherwise they will become diveared and will injure the tree. Before planting, tie the apper fibrous roots around the trank, then place the tree firmly in the centre of the hole, apresd out the lower roote evanly all round, and if large and atif, stake them in position should this be necesary; work in loose earth around and between them, fill in to the apper lot of roots and tread down lightly, The upper roots should now be nutied, laid out all round, and covered with loone lonm, to which a little lime has been added, and the whole trodden firmly down. When a second person's eneistance can be procared to keep the tree straight, it will makn the work all the eatier. If the trees are received from the naraery directly the leaves have fallen, and at once planted, they will get thoroughly settled in by the autumn rains before the froat comas, and will commence growing at soon es the other treen do in the apring, and will than experience hardly any check at all, which they would do if plented in the apring.

As the woolly aphis or American blight is about the only enemy which attack Apple trees, I might just say here that the best way to get rid of it is to bruah the part affected with a hard paint brush dippod in a weak wolution of paraffa and water.

\section*{Proniva.}

Trees, like children, to be properly trained, muat be taken in hand when young, and although we can follow a general routine in caltivating them, yet the details of their cultivation must depend, in each case, apon the individual variety. For inatance, some varietier grow very erect, and if allowed to continue in this form will choke themelves, prodace very little frait, if any, and this of a very inferior quality. Bat as our objoct is to get open trees so that light and air can get at every part of them, it woald be no are in this care praning to a bad on the inside of the branch, as the latt bad always forme the leader for the next year, and would therefore grow directiy into the centre, and the tree would be atill more crowded ; we must therefore prane to bade on the underside and the branches will then grow outwarde and away from the centre. Again, some kinds have a propensity to droop their branches, so that if the last buds left are under onef, as in the former case, they will very soon grow down to the groand ; in this inatance s top bad must be left tn erntinue the branch. Whan the brach is sofficiently long to allow of ite being duplicated at the and without fear of crowding, it should be praned to a point where the laet bad is on one side, and the next one is ezactly on the opposite side; these two bufa can then be allowed to grow, and will form a \(V\) at the end of the origiaal bravch; but when the two end of the \(V\) are about 1 foot apart, the direction shousd then be again altered into a parallel direction by praning to an inside bud on ench arm. The aim alway to be kept in view being, never to allow the centre or any part of the tree to become crowded. As ageneral rale, the lat three bads on a branch will shoot ont and form new growthe, while the remainder, if the tree is halthy and not too vigorous, will develop into fruit bude, oo that with thil knowledge in view we can alwaya prane our trees to form branches in whatever direction we like. It is a
moot point an to when trees should be pruned; some say during summer and autumn, whereas other do not agree with this, affirming that the tree is harmed thereby, and that all praning should be left till the atumn; again, those who advocate apring praning give it as their opinion that the newly-cut parts are liable to be injured by the front coming before they have time to heal over when carried out in the antamn.
There is no doubs that there is some foundation for all these assertions, but, on the other hand, if the pruner bas a little common-sense and jadgment, they can all be overcome. Natarally, if the tree is pruned all over at the end of Jane, it is, as it were, auddenly thrown out of gear, as there are no free channels for the ap to flow through, and no doubt a great deal of injury will be the result, bat the method I myself have paraued, and with the best resalts, is to prane only the side-shoota back to two eyen, and not touch the end shoots at all. The anp, then, is checked but very little, and the surplus which is not required for continuing the branch onward flows into the fruit, which is then large enough to take almost any quantity, and the two bads in most cases will lie dormant, and form frait-blonoms for next year; if, however, there in not anficient frait on the tree to abrorb this surplus aap, only the upper of the two buds will shoot, and mast be cat back in the antumn to two bade again, while the remaining bad will be are to develop into a fruit-bud. Here, then, is a distinct gain of one year, for if the shoot had to be left till the autumn to be pruned to the two eyen, it would then have been far too late for them to develop into frait-buda by the following spring; the remainder of the tree is then praned in the autumn directly the ap han ceased to flow, and the newlycat parts will dry before the frost comer on, when no harm will result. When the tres is in the condition it ahould be in, hardly any pruning will be necemary, other than cutting back the new wood at the ends of the branchen to 6 inches from the atart. There is still another advantage in anmmer pruning that should not be overlooked, and that is, that light and air will more freely circalate in and about the tree, and its bearing propartiea be considerably increased through the wood being ripened, that is becoming hard through the zap being, to a certain extent, dried up, and the fruit is better matured.

\section*{Selrction of Varibtirs.}

At already pointed out, a difficulty that always arises is the choice of varietien most suitable to amall-growing trees, and therefore a little gaidance as to the best hinds to grow will not be out of place. Tastes vary very considerably; but for my own part, I prefer Applen which are crisp, jaicy, and weet, and with the later kinds, good keepers, and not liable to get woolly (early kinds should invariably be eaten direct off the treen, as they soon lone their frethness); in the cate of Peara, they should be luncions, jaicy, and remain ripe for some time before going rotten or sleepy.
The following varieties of desert Apples falfil the above conditions an nearly at ponsible, are reliable and constant croppery, and will give continual supply for ten or eleven montha, viz.:-August, Devonahire Quarreaden (which, however, will not thrive in cold, damp localities) (Irish Peach)*; September, Worceater Pearmain (Lady Sadeley); Oztober, Mother ; November to Jancary, Cox's Orange Pippin (King of Píppins); Febraary to June, Starmer Pippin; April to May, Allen's Everlasting. Should only one be required, Cox's Orange Pippin should bo grown ia proference to all other, as it keeps no long (November to Janaary), beara well, and is of mediam aize. I have had over thirty good-sized fraits on one of these trees when only four years old. Althongh the above list is very condenaed, I consider it far better to plant saveral trees of a small number of varieties, provided they are good kinds and constant bearere, than fow trees of several varieties. Highly-coloared Applen, grown prin-

\footnotetext{
hinds.
}
cipally for how, are asually soft and woolly; some, however, prefer them.
Cooking Apples are uaually no cheap, that they are hardly worth growing, unless one has plenty of room ; but the following varietien are good bearers, and worth growing where practicable:-Augast to September, Dachens of Oldenbarg; September to Ostober, Lord Grosvenor ; Oetober to Janaary, Bismarck; (November to Dacember, New Hawthornder), (November to March, Wellington); November to April, Lane's Prince Albert. A! Apples are dearer in the apring of the year than daring nummer, Lane's Prince Albert should be grown in preference to the othera, where all cannot be grown, as they give a anpply from November to April (aix montha).*

\section*{(To be continued.)}

\section*{FORESTRY}

\section*{THE EDUCATION OF THE FORESTER.}

Mr. Forbes' letter on this abject in your last number raines a queation which has often baen discussed in your columns before, bat seldom with any practical realt. It is perfectly true that, with the exception of a few great estate in Scotland, a few Royal and Government forest in Eagland, and here and there a property whose owner is in the happy position of being entirely independent of the income derired from it, there is no such thing now. a.day as scientific forestry in Eagland, no demand for scientific forestert, and, as far as I can see, no reason why there whould be. The reason it a very aimple one. Scientific foreatry doen not pay. Royal Commiarions may be appointed, and achools of foreatry institated, lectures and articles on the subjoct without end may be written, but all will bs perfectly ueelens, because the people who have to manage propertie know that the whole thing is purely peculative, and in my humble opinion there is far less opening for cientific wood management or forestry than there was a century or two centuries ago, when, if there were not many cientific foresters, there were plenty of excellent woodmen who knew their businent and did it. In those daya there was some certainty of a fair return for their labour and oatlag. Now there is none. If any one can thow a profis-and-losiaccount of the woods and plantations on any property in Eagland which daring the last ten or twenty years have been so managed as to pay a fair rate of intereat on their original cost, it would do more to encourage cientific foreatry than all the talking, lecturing and writing in the world; but eithar such a thing does notexist, or the conditions are so exceptionally favourable that they are no guide to ordinary practice. Is there any nort of timber or wood product which cannot be producad in some other country far cheaper and in many cases better than in Eagland? If mo, I have not discovered it, and I have aeen more of the foreste of North America, Europe, and India, than nine out of ten of those who talk about meientific foreatry.

There wat one tree which for a long time did seem as if it would prove a mource of profit to many English planters. I mean, of course, the \(\mathrm{L}_{\text {arch }}\); but what is the preaent condition of half the Larch plantation in Eagland under twenty jears old? and what have the ucientific forester done, or what can they do to stop the progress of a disease which neeme to be apreading and increasing everywhere? As far as my experience goen, abolutely nothing.
Mr. Forbes wayn very truly that the majority of British woodlande owe their exintence to the game they harbour, and I believe it is a literal fact that the mont scrubby, ill-managed, neglected woodlands, if well situated for game preserving, are worth far more to-day to asll or to let, and giva more satiafaction to their owner than the most cientifically. managed foreste where there is no game.

\footnotetext{
The paper was illustrated with practical demonstration of the various methods of gralting, samples of well and badly grown branches, be side: a good collection of the above-named
}

Another reason for the neglect of forentry in England is the absence of any certain market for the prodace. It is true that the owner of a large quantity of clean, sound timber not too far from a good road, and a manufacturing or mining diatrict, mas get a price of aome nort for it ; but what can the average Engliuh landowner get for the few reoru or hundreds of trees that he has to cat from time to time? What can he get for his bark or his nader. wood compared to what he got in bygone times?
At a rule, he only cat heavily when be mate money badly, and in ordinary timen cata only what he wants for estate parposes, firewood, fencivg, and so on. He could very often buy it better and cheaper, bat he doen not like to turn his woodnon of, and at any rate the money atays on the proparty. Bat he hates the very name of a timber merchant, who in mont diffizalt to deal with in such tranactions as an average landowner han to do with. If he cac get enough out of his wood to pay expenuen, and the young trees which he plants are not tatally crippled or deatroyed by rabbita, drought, apring frosts or insect pests, he thinks himelf lucky, add though he may plant for ornament or shelter, ho now hardly ever planta for profit.

I have often thought that a time mat come when the price of Eaglish timber will rise considerablyand no doabt this time will come; bat whether the accesmor of the men who planted it will get ay adequate return for ite original cost is as mach a matter of apeculation as the price of coal a handred years hence. The finance bill of last year had done more to check cientific foretery, or any other 80. called improvements of the kind which Eogliah landowners have hitherto done so much of, than the apportere of the bill have any idea of. When they have atarved out the land-owner they will want the State to do what he used to do, bat the goose will be killed by that time, and it will be too late to cr out. H. J. Elwes, Colesborne, Cheltenham.

\section*{WEST INDIAN PLANTS:}

Cxrtopodium Woodfordi, Benth. (Cybtopra Woodfordi, Lindl ). -In one or two districts of Gre nada this O chid is fairly common. Along the roadrite on stiff loamy soils it grows naturally, and also near st hand oftentimes it greenish-parple scaper may bo observed quite at home in swampy flat patches of land, peering out of the Sadger and other ammpo loving plants. It leaves simulate in situ somenhat those of a common Grenada grase, namely, Panicas palmifoliam. I am told by an old whita ettlerone C. W. Protin by name-that the lower portion of the plant yields a viscid sap, by whone nid broken wares may be repaired. Grisebach records (at p. 630) in his Flora of the British West andies, apon the authority of Crueger, that in colour tho flowers are "white, with a yellow apot on the lip." This reference meem; to me to raise a doubt a to whether Crueger did not mean Cyrtopodiam erit tatum of Grisebach instead, for-if my memory nerru me correctly-this latter terreatrial in a pare whiw with a yellowish tint nomowhere about the flowit When I saw it growing in the Arip: manas of Trinidad (B. W, I.), about three years sinct, brought to mind the Lily of the Valley. Oar Grenadan C. Wood fordi certainly showe no tendenct to white; but, on the other hand; is decidedly of brownish green-parple coloar. When collectiof herbarium material last year, I noticed the floweritg atem to be succulent and pliable, and the leares brittle. It flowers during the months of Augat and September, and posaibly October. W. E. Broadmas, Botanic Gardes, Grenada, B. W. I.
Poltpoditm (Edfolipodium) xiphoptanoidmontis Jenm. n. sp.
Stipites tafted, wiry, fliform, atiffly erect, browh aaked, slightly acariose, margined to the bave, 3 dart or inches long; fronde bipinnatifld, firm, erech, widp, green, naked, 4 to 6 inchen long, \(1 \frac{1}{8}\) to 2 inches widn ruddenly reduced at the base to minute deltoid aptrid like segmente, the apex termionting in a pinnasiad pinaa I to 1 I inchee long, broadent at the bave, otherwise similar to the lateral ones; pinnes aprein nide, linear, \(\frac{3}{4}\) to \(1 \frac{1}{4}\) inch long, \(1 \frac{1}{8}\) to 2 lires wid
broadly adnate and narrowly decarrent, forming a alightly interrupted wing to the brown wiry alightly fexuose rachis, terminating in a minute obtuse lobe, cat two-third to the dark filiform mid-vein into obtase obliquely deltoid decarrent segments重 to \(\frac{3}{3}\) line wide and deep, with an open, cblique, subacute sinus between; veins imple or forked,
the latter abraptly paas. Though the frond are larger, the pinna are only half the namber of thoue of melanosricham. The cutting of the pinda is exactly like that of Xiphopteris frouds. Pachille cefoliam, Kaulf, of Ecaador and Brazil, is the onty other pecip of this small groap. G. S. Jenman, Demerara, Oct. 24, 1895.


Fig. 103.- cordiling banigit, on stemart island.
not excarrent; sori terminal on the hort ear-like anterior branch, one to each egment.

Gathered in Caba, by Eggers, matted with other apecies, and apparently not detected. Near to \(P\). melanotricham, Baker, of Roraima, Britiah Guiana, bat diatingaished by the obtuse-not finely aubulate - final aegmentr, forked vein, the sori on the hort, nearly basal spur, mach longer petioles, with minute par-like segment apart near their top, darker colour, and the distinct tersinal pinns nimilar to the lateral, and into which

\section*{CORDYLINE BANKSII, ON STEWART ISLAND.}

This fiae "Palm-lily" ie one of the moat beautiful and interesting plant in the New Zealand florp. Although occationally cultivated in the touthern portions of the British Islep, it is not well known as it ought to be, from the besuty of its inflorescence, and the picturetque effect of it long drooping lesven. The drawing presented herowith. fo. 103 , is from a photograph taken by Dro J. R. Riley, of

Winton, and repretent a apecimen of the Banka Pdm-lily planted an a reedling on the Island of L"iva, Paterton' Inlet, Stewart Iuland, by the late Mr. Charles Traill in 1888, and flowering for the firts time in 1894. It present height from the base of the atem to the aper of the panicle is about 11 feet; the leaver are between 5 and 6 feet long, and about 3 inche broad in the middle, being narrowed into a rounded leaf-atalk, which becomer alightly expanded at the baec; a longitedinal red band aun down the middle of most of the leaves, and increases the beauty of the plant. The hage open pacicle, which in old plants is drcoping, and often from 7 to 8 feet in length, is characterised by the long, alendes, and rather distant branches unually forming a right angle with the rachis, and in at once aingular and beantiful, reambling a large apecimen of ramifying white coral. The common Palm-Lily, C. autralie, differing in its abort atiff leaves, and maller more compact panicles ; although acarcely less besatifal than C. Benkuii, is certainly less graceful, and presente a atrong contrat with that species, while it abtainas much larger size, apecimen 60 feet high, with a trank 6 feet in diameter, being occasionally observed; C. Bankaii sarely exceed 10 feet in height. C. australis in dietribated throughout the Culony from the North Cape to Stewart Island, but C. Bankeii is only found in the North Maland and in the northern fart of the South Island at far soulh ee Weacland. Sipwart Islard in atparated from the \(S\) suth Island of New Zealand by fureanx Strait, and bas a very interenting flora, containing many endemic plante of great beanty; it climate is mild and remarkably equable. Although the atmonphere is almost contantly astarated with moiacare, the actual rainfall is acarcely larger than that of Cook Strait, asy about 42 inches per annum.

An account of its flowering plants and Ferns was published in the Tramactions of the Niw Zealand
 is of enpecial intereat as forming the extreme southern liait of arborescent Ferns, which extend to the South Cape, lat. \(47^{\circ} 20^{\prime}\), instead of to \(45^{\circ} 50^{\prime}\), as unally atated in our text-books.

The tree Fefn on the right hand aide of the drawing is Dickennia equarrosa; the trees thown st the back ale the Kamahi, Weinmannia racemota. T. Kirk. Colonial Muewm, Wellington.

\section*{Vegetables.}

\section*{KITCHEN GARDEN CRUPS IN 1895.}

We may now compare note with previou years, and it is well to do so for futare kaidence. Io this dintrict we soffered somewhat everely from the extreme cold in Febraary, cot only so, tut the grcand was sendert unworkable till quite late, which prevented us from getting meny of the cropenown and planted at the time we should have preferred. April was a momewhat cold munth, there being only one night throughout it in which the thesmometer regiaterid over \(45^{\circ}\), and oaly two days that might be considered hot, or when the thermometer in the sade registered as many as \(7\left(t^{\circ}\right.\), the consequence being that vegetabies made but slow progrens during the whole time, and thin, together with the drawback of the previous two monthe, began to make thing look rather eeriouf. May was a very dry month, when only 014 of an inch of rain fell with ut, the same being the cate in June, when 0.36 fell, while Jaly was by far the wetteat mouth of the whole gear.

Asparague was by no means so plentifal as in some former years, while Peas affered so mach from the slug in April, that they made bat a poor thow for a long time, and were there!ore mach later than usual. Many of the varieties, however, did exceedingly well, even till the end of the meanon; particularly fine were Sutton's Late Queen, Veitch's Main Crop, and Eckford's Memorial. Caulifowern got well eatablished during the showery weather in April, and then prodeced bead, the like of wich
we have neldom had, all kind boing satisfactory alike. The first to turn in were Early Forcing from seed nown in pans early in January, and thene were followed by Walcheren that had been protected in a cold frame daring winter, and planted out in the open quarter at the end of March; after which Mammoth and Aatumn Giant that were rained on a alight hot-bed and planted out in April, the roots having time to take a good hold of the soil before the hot weather set in, and on that account, they did not bolt as did nome of the summer varieties planted out at the same time. We can therefore recommend this plan to others situated like ourselves with a certainty of saccess. Root crope of all kind are very good this meason. Carroty are excellent, particularly those that were not sown till late. With us, Carrots sown about the middle of June will uanally grow large enough even for exhibition by the end of September, and finer aamples need not be than those sown at that date this year, the bountiful thowers during the latter part of Jaly being jast the thing for them. Seed awn daring the aecond week of that month on ground that had been cleared of an early crop of Potatos, have produced a fine sample of aseful roots. Those who are troabled with the Carrot-maggot, and have to find supplien to carry them on through the winter, would do well to adopt this plan. For these late sowings we une Model, Intermediate, and Gem. Beet-root that were aown early have grown far too coarne, being more of the atamp of Mangel Warzels. Those who have good ground would do well to confine themmelves to growing the dark-leaved kindu, which need not be sown before the end of May or early in Jane. Seakale Beet is one of those usefal vegetables not so well known as it dererves to be, for at this season of the year, when both Beans and Peat outuide are over, and before forced Asparagus and Seakale come in, there is always something needed for a change, and few vegetable than thic, particularly if a good atrain be obtained, the parly-white leafatalk: being very tender. Globe Artichoken have done well this antumn, and continued forming heads from young plantations till they were cat down by the frost, which, with us, was very evere for about a week, there being \(14^{\circ}\) registered on the night of October 26, and \(11^{\circ}\) and \(10^{\circ}\) the two following morningu. Jerualem Artichoken, especiaily the white variety, have grown very atrong, and will, no doabt, prove useful during the coming winter.
Tarning to the winter green cropa, Brassele Sprout form the principal, as these continue to give a supply daring bad weather, when Broccoli outaide are cut down. There are now so many fine varieties that it in difficult to say which is bent. Those, however, who have good ground would do well to grow the smaller kindr, unlens the othera are planted late, as they grow far too large. With us it is seldom that Bruselela Sprout need is aown before the second week in April, and then a north border or open quarter is relctect on which to sow it, otherwine the plants would be too forward. Plenty of aprouts are then uoually ready for uae by the time Peas and Beans outside are getting over. Celery is a vegetable no much eatoemed ia mont places, that a good supply should always be had. Laat wintar, the one that withatood the froat beat with us was Major Clarke; thin fine molid variety when well grown, is hard to beat. Broccoli with us are not so good this seavo, the hot dry weather in September affecting them very mach, and if wo should have a severe winter, many of them will no doubt accacab. Borecoles are mach more bardy, and on that account ought to Sad more favour in our garden. There are some very useful kinds amongat these, ach as Al, Arctic, Favourite, and Exquinite. Hanner Beans have become no numeroa that one would almont wonder how more can be sdded, but when we come to connider that half-a-
dozen or co varieties may be had out of one pod, the dozen or co varieties may be had out of one pod, the marval is that they are kept motrue. A variety we grew this meason under the name of Exhibition, produced an abundance of atraight, well-shaped pods about 13 inches in length. We hope, therefore, to give it enother trial next meason. H. C. Primep, Suseex.

Walcheren Cauliflower.
Although I have cultivated everal varietien of Caalillower for wintering in frames and for an early sapply, I have so far foand none to be equal to the Walcheren, and were I limited to one variety, I would give my preference to that one when true. Early London Caulifower may be a few days earlier, but it is more apt to " button;" at least, that is my experience. It is a mistake to get these plants for frames too early, quite amall plants being bet. Lift and transplant them into frames, hand-glasses, or to a pot where hard frost can be warded off, and give the ail a gentle stir occanionally between them, and plenty of air at all times when there is no actual frost. It is seldom that they will then fail to turn in well about the firt week in Jane, earlier or later according to the season.

At all times Cauliflower should be planted where they are to form their heads, on deeply-trenched, well-manared land, and not left too close together. Walcheren ia more hardy than many, and is of a compact habit of growth. I alway plant them out at 7 inchea apart in frames for the winter. The Erfurt type is useful for sowing in pans in heat in late winter and early apring, and if duly attended to, it will come into ase at an early part of the summer, bat great care mast be taken they do not get a check, or nearly every plant will "button." H. Markhan, Kemt.

\section*{TME WeEk's Work.}

\section*{THIT ORCEID HOUSE8.}

By W. H. WHITE, Orchid Grower, Burford, Dorking.
HINTS ON CULTURE.-Plenty of light at all timea is necessary for the healthy growth of Orchids, and at this season more than at any other. The glass in all the Oichid-house should be kept clean by washing it inside and out. The wood-work should likewise come in for an occasional cleaning; a white, clean surface increases the light in the houses. Examine every plant for insects, and sponge the leaven with clear water; wash the pots, and kesp everything about the plants trim, clean, and tidy. Whiltt re-arranging the plants in the cool-houme, examine each for slugs, which are nearly alway preaent in the phaganm-mose, paring no trouble in getting rid of them; failure to do this will lead to nambers of young roots and ancculent flowerapike being lost. Lettuce leavea, mall shallow pana filled with brap, alice of Potato, \&c., are useful as baits for nlags, and thene should be placed on the atages and the moss, and often examined. When the flower-apikes of Odontoglosams push, a piece of rough wadding whould be wrapped around them, as over which slage seldom pans. As to Odontoglossums of the cool-house, the mejority are in full growth, and it will be noticed that at the base of many of the leading breaks there is a brown-coloured outer sheath, which sometime clasp the growth 10 tightly as to prevent the young roots from emerging, and it should be carefully ulit in several places, and palled off in amall pieces. Failure to do this causes the roote to come up inside the sheath into the air, and make no further progres, instead of the shagnam-moss. The plants of Miltonis vexillaria now growing freely will require similar attention, as also the new growthe, which should bo examined occanionally, and the tender young leaves that atick to each other and become crumpled gently separated from each other. Among Orchids of mall growth the pretty yellowflowered Oncidium cheirophorum in now opening it flowerw, and till the flower-spike is fully developed, the plant ahould be hang ap close to the roof-glass in the intermediate or Cattleys-house, so that it may obtain plenty of light. It is a plant that should be aparingly watered at all times, and especially daring the winter, or the paeado-bulbs and leaven will rapidly decay. After the flowers fade, the plant may be afforded rest by applying just afficient water to keep the peudo-bulba plump-looking, and when growth recommeaces fren material should be placed about the planto Shallow well-drained pani, with a thin layer of peat and sphagnum-moss to root in, suit this plant. Oncidiam. Phalænopais, cucallatum, olivaceam, and nubigenum, although their flower are small, are very lovely, and they keep freahlooking for meveral weeks; still, it is unadvisable to retain them on the plants too long, or they will nuffer in health. Like many other species of Oncidium, these fail in mome inntances to grow as atilsfactorily as their owners would with; and being
purely cool-house plants, they require a light ponition in the Odontoglomam-house, and plenty of water at all times. The ame kind of treatment will nit Mesonpinidium vulcanicam, M. sanguineam, Odon toglossum roseam, and Cuchlioda Noeziliana. Theme specien hould be potted rather high ap in wello drained pots filled with peat and sphagnam-mous, and the best time for repotting them in juat when root activity begins.

\section*{FRUITB UNDFR GLAS8.}

By Riohard Paricer, Gardener, Goodwood, Chichutre.
GENERAL WORK. -The practice of placingnumbera of plants of Chrysunthemams in every available finito
house is reprehensible, because it leads to sn im. proper treatment of the Vines, Peachen, Figa ime. permanently planted in them. For inftance, firsheat has to be used in frosty weather, the rentilation is also not what the Vinem, \&c., require, the borders are made anduly wet, and the surface trodden down and made impervions to the air. To lessen the evila of housing the Chrysanthemums as much an may be, they should be removed as soon at they are patitheir best, so that the freest ventilation may be afforded the permanent occupants, and the neceasary operation of cleaning, pruning, tying, \&c., pushed on without lous of time.
peaches and nectariner. -Treen in borden which will be atarted in December, will require to be thoroughly cleaned with soft-soap and hot-water or Gisharat Compound, or simply a weak nolution of tobacco-water, whichever may appear to be the more suitable. Having done this, and scrabbed sll moodwork, limewahed the walls, and rendered the glase clear and bright, the training of the tree may be proceeded with. This operation finished, the border! should be raked clear of rabbith and clod, and not distarbed with a digging-fork unless their hard condition render it necesnary, digging however shallom destroying many rootm aituated near the suriace; moreover, a firm soil is productive of the fingr rooth. A dreasing of freah loam 2 inches thick laid on the border will do much to encourage the roots to the surface, and will not promote grons growth. The hotwater-pipes, if not new, may require a coat of lamp-black and lineed oil (no turpentine), and to have valves and joint put into good order. The house thould be kept cool until forcing begin.

CUCUMBER8. - With short days and gloomy tiet growth geta less and leas vigorous, and aphiden, rad apider, and thripe attack the foliage, rendering mach attention necessary to keep their nambers so low that but little injury is done by them. A mild famigation once a week with the XL All Vaporiser will ched aphides, \&c., which is a safe means. Guard agsinu high temperatures with their consequent dry sir, which should be avoided, as red-apider and thriparo not then so mach encoaraged. Some fresh honk dung apread on the borders occasionally
ficial effect on the growth of the planti.

\section*{THES ELOWIR GARDIIN.}

By Bailes Wadds. Gardener, Birdsall Gardeur, Xork
PLEABURE GROUNDB.-Now that the graster portion of the foliage has fallen, much sweeping be lawns and walk is entailed, and which caniof bidy neglected if the garden is to have a neat and be appearance. wheeled to the whea to the leaf-heap at once, all to leave hoold is to bave to do the work over again. aways be three heaps of leaves: that which is ald and therefore in a state of mould; that which in low decayed; and lantly, the freahly-fallen lempan The autumn, whilat frotim are not intense, mas bo utilised in taking up the tarf on aneven laminh making the land level by digging it a fer incha deep, and then levelling it, or by the addicarf. woil. Make it quite firm before relaying the kufl, When worm-casts are so numerous at to be uaigus choone a dry day for aweeping them ap, and thea light wood roller uned frequently for the parpow keeping them down. Poor grass whould recin o dressing of charred garden-refuse, quickimat rather freah-slaked lime and loam, which will gro and improve it. If put on the turf on a dry daj, it is brashed or raked about, and afterward yollon, lam readily distributed regularly. No wor should be carried on in fronty weather.

WALK8 AND ROADE hould have the edgingh when these consint of tarf, neatly cut, and the mata and of which the walk or road is made woface ghat rolled after rain, or whenever the suria now be
loosened. The regravelling of walke miy undertaken, and old gravel may be turned and tho
arface made good again. In parte of the country in which gravel in not cheaply obtainable, the road are made of flint or Macadam and ea-gravel or mand ; and such walks and roads should not be dag up or disturbed, but be dressed with Weed-Kıler, or weeded by hand, made level, and rolled once a week. When much now has fallen, do not sweep the gravel walks, but use sriangular anow-ploughs of various sizen. The broom throw the mall atonea and grit on to the laws and grase vergen, to the detriment of the mowing-machine.

FLOWER-BED8 which will not be planted till the apring should be deeply dag, and the surface left in ar rough state.

Charaina REFUSE,-On dry dayn, burn in a mothered or open fire the pruninga of trees and shrubs and other garden refase, pasning the ashes when cold through a wire acreen or coarse-meahed sieve. Thi fine powdery material is excellent for
mixing with the potting soil in which Pelargoniams mixing with the potting soil in which Pelargonium:
and other bedding planta are grown, an also when mixed with manure a dreange for the Rose beds and herbaceous bordern. Compost for a variety of parposes may be got together at this season, throwing the materials into conical heap, so that they may not become unduly moiat. When the weather permitn, the digging, carting, and atacking loam and peat, sand, \&c., for fature use, may be proceeded with. The decaying leafheap may be aifted, and the uable portion put under cover in readiness for use, the reat being again thrown into a heap to decay atill further.

\section*{PLANTS UNDER GLASE.}

By W. H. Smitr, Gardener, Wast Deas Park, Chiehester.
THE FORCINQ-HOUBE.-Batchen of Lilac. Lily of the Valley, early varieties of Tulips, Dentzia gracilia,'Spirma, Tea and other Rones, Weigela (ronea and othera), Azalea indica, A. mollis, hybrid Rhododendrons, Hydrangea hortensie and H. paniculata, Staphylea colchica, Choiaya ternata, Dielytra spectabilip, and the doable-flowered variety of Prunues minenis. All plants, excepting Lily of the Valley should be syringed overhead three or four time daily, less or more according to the weather, and the air of the hnace maintained in a moist atate. Balba of Roman Hyacinthe and other plant now coming into flower hould be less ayringed, and removed into a slightiy less warm-house, for the purpose of inuring them to bear the temperature of the conservatory and apartments. In eatablishments requiring great quantities of cut bloom, Narciasua, Tulips, Lily of the Valley, Roman Hyacinthu, Freesias, and Helleborus niger should be planted in saitable boxes, with a view to economising apace in the forcing-house, Rhododendrons may atill be lifted from the open ground, and potted in leaf-mould and peat. A Peach-house juat tarted ia a capital place for the forcing of Lilacs, Kalmias, Gueldres Rose, \&c., which are plante that should be very gradually forced into bloom at this season. The temperature of the ordinary forcing house should be \(60^{\circ}\) at night, less in very cold weather, \(70^{\circ}\) by das in cloudy weather, and \(75^{\circ}\) or higher with sun-heat. Lily of the Valley requires a botiom-heat of \(85^{\circ}\), and to be forced in darkness, crowns being employed, not clumpr, which do well enough after February. Only force Azaleas, Rhododendrons, Lilacn, and Sitaphylea which posen prominent flower-bada, or which have been suitably prepared. The watering-can must be carefully ased, applying no more root-moisture than affices to keep the ball moderately moiat, or excesaive leaf and hoot-growth will occar, to the detriment of the appearance of the plants. If the shoots atart to grow on Azalea indica and Rhododendron, pinch them back or break them out.

CARNATION SOUVENIR DE LA MALMAIBON.When early bloom: are wanted, some of the forwardeat plants shoald be placed in a house with a temperatare of \(55^{\circ}\) by day to \(50^{\circ}\) by night. Only those plant which are throwing up a flower-stem should be chosen at this date. Afford a light overhead syringing in bright weather, and examine them for aigna of the Carnation disease, catting off all affected parts as soon as detected, and burning them. Famigation mould be resorted to once in three or four weeks. as means of checking the increase of aphidea. Young atock of thil variety of Caraation hould not receipe too much water at this seaton, and if the plantis can be plauged in Cocos-nat fibre refuse, they will acarcely need any water. It is anfer to err in affording too little than too mach water. A good place for the plants in the winter is a low pit to which artificial heat can be applied, and which
should be ased in very damp or frosty weather. If young plants affected with the spot disease (Cladomporiam) are carefally examined once in three weeks, and all affected parts removed with the knife, the plante neually grow out of it.

EUCHARI8 GRANDIFLORA.-The flower-spikes in mont cases should be pushing up, and copious rootwatering, togetber with the use of liquid-manure occasionally, must be resorted to. Ai a mild kind of manare, I can advise the une of soot-water, if made weak, for keeping the leavea of a deep green colour. The house ahould be kept in a moist condition, and be ayringed twice or thrice a day. If the bed in which the potfuls of balbi are plunged in getting deficient in heat, wome fresh stable-litter and tree leaves in a fermented atate should be added to the old materials. It is an easy matter to keep the air of the house cooler if the blossome come in at too early a date.

\section*{THE HARDY FRUIT GARDEN.}

By W. Pope, Gardener. Highchere Cantle, Newbury.
PRUNING AND NAILING FRUIT TREE8.-The work of pruaing and nailing, or otherwise securing the branchea and hoots, hould be pushed forward, whenever practicable, instead of being (as ie often the case) postponed till the colder days of midwinter, it being poasible for the work to be done with lean discomfort than at that season. The Cherry, Pear, and Plum trees should be first taken in band, following with Apple, small fruit busbes, and lastly, the Apricot, Peach, and Nectarine, the nailing, \&cc., of these being uaally deferred to the spring month for the ake of omewhat retarding their fowering. If the treen were properly attended to in the matters of pinching and regulating the hoot daring the summer and early autumn months, but little praning will now be required. The side eshoot of the weet Cherrie that were hortened back in the month of August to 6 or 8 inches, should now be atill further reduced, leaving two or three bude on the base of each. In doing this make a short clean cat from below the terminal bud, but not so close as to endanger it. Look well to ties, bred, and naile, and see that no aail is close enough to the rind as to be a cause of canker. All of the larger branchea should be secured with racher large and noft tarredatring, with plenty of space allowed for the awelling of the shoots. Shoots for extending the ares covered with the treen may be fastened with shreds and nails or ties of well twisted bast. The shoote of newlyplanted trees should not be shortened at this neason, but loosely fatened to the walls or to atakes, so as not to interfere with the eettlement of the plant in the noil of the border. Prane sach plante in the apring before growth has begun.
pruning and training out-door grape VINE8.-These Vines ahould be pruned as soon as the leaven have fallen, early pruning being eapecially called for if large branches are removed to make apace for the accommodation of young thoots, of which some ahould be laid in yearly. Such old wood, if not taken off in good time, is liable to "bleed" excessively when the ap rises in the pring. to the detriment of the Vine. To still further gaserd against "bleeding," it is advisable to dreas all largo wound with etyptic, or pacent knotsing, when the wood is dry, so as to clowe the cells. In ordinary praning, cut to a stont plamp bad near the base of the lateral bhont, long apars not beiag deairable in these Vines. In training the main rods on walla, the intervening apacen should not be less than 2 feet in width, and fasten these rod with tout tarred-string or leather atripa. If an increase of the atock of Vines be wished for, cattings from 9 to 12 inches in length, taken off with a heel, hoald be choen; cutting the buds out of the part to be inserted in the soil, and leaving one or two on that part that is above it, and inserting them where it is wished to have Vinen-or, they may be pat into a cutting-bed and tranaferred when just about to atart into growth the second year.

\section*{THE KITCHEN GAHDEN.}

By John Lambirt, Gardencr. Powis Cautle, Welshpool.
THE GLOBE ARTICHOKE.-The plants of the Artichoke, owing to much rain having fallen on a noil abnormally warm, were an they were cat off by froat. Being so green and oft, there ia the more reamon for well protecting them againut injary by hard frost. After removing all the atem that have borne flowerheads, and a few of the leaver, afford the land a drassing of rich farmyard manare, forking it in lightly, and afterward place atable-litter or tree eave around the plants to a depth of not lens than

8 inches, making this secure by apreading a little noil over it. When the tope are quite decayed, remove them, and cover the remaiader of the plant, in very nevere weather with light litter, removiag thia material on mild day.
the jerusalem artichoke. - These ahould be left in the ground till towards the end of the year, the steme being cut off at 3 inche above the ground. Lay them evenly over the soil, which they will serve to protect from fromt; or if that be thought too slight a covering, wome long litter may be ueed. The topa this meavon are very trong, and almost all have flowered. When lifting the crop generally of for current use, carefully pick out thoes intended for consumption-that is, the beat and largeat-and select the tubers of a fair nize and good ahape for next year' set. The white-tubered variety hat the nicest shape, and it is a good cropper as well as an improved variety.

PEAB. Where seed is not as yet sown out-ofdoors, the matter hould be: borne in mind, and a dry day choen for getting it into the ground. The well-drained early lea crop thould be, if posithle, a well-drained soath border, which should be dressed with well-decayed manare or leaf-mould before digging or bastard-trenching it. The drill ahould be about 8 inchen wide, and before and after the Pear are sown, aifted refuse-soil from beneath the pottingbench should be placed in thedrilis; a covering of the depth of 1 inch of the ataple will be anficient, making in all a covering of about 2 inches in depth. Above each drill a half-inch layer of tine coal-ashes may be placed as a deterrent to the sluga. The distance at which the drills are drawn will depend on the height to which the variety of Pea grows ; and Dr. Maclean, Sangater's No. 1, Veitch's Chelsea Gem, Dickmon's Firat and Beat, and Sutton's Improved Ringleader are excellent as early Peas. Mice muat be trapped, or the seed rolled in mixtare of redlead and petroleum before sowing.
broad beans.-A mowing of the Mazagan and Beck's Dwarf Green Grm varietie may nuw be mado wher the ground is not too rooist to be trodden upon. Sow either in drills, or dibble in, the diatance at which the rown stand apart being determined according to the parposes the ground between them may be put to, and whether large or mall-growing orops, or none at all, are to bo grown in the apaces. In wet land, ridges hould be thrown up, and the drills drawn either on the top or at the sides of the same and as soon as the young plants appear, afforded protection by drawias the wil ap to them, and placing branches of the common Yew or Fir on either side of the rown.

A New Perfume Oil-Under the name of "Kuromoji," the essential oil of Lindera sericea, is stated by the Chemist and Druggist, to be alowly acquiring some degree of popularity among manufacturing perfumers. Several lots, it seems, have recently pased through the Liverpool market, and gone into consumption. It having been noticed by some of the buger that the everal parcele of oil differ in odour from one another, enquirien were set on foot to discover the cause, and these enquirien bave elicited the fact that the Karomoji oil is not produced on a large scale by essential oul distillere, bat by amall farmera in Japan, each of whom distila the yield of the shrab growing on bie own eatate. These small tocks are then bought up by dealers in various centres, and mixed together, almont precluding the ponibility of getting exact uniformity in aroma. The oil is obtained from the young shoot and leaves of the plant, which is a Laurineons ahrab of from 4 to 6 feet high, growing in the monntainous diatricte of Japan. The old wood is mach used for making toothpick. The oil, which has a plesant, aromatic, balwamic odour, is of much value in perfamery, especially for toap making. It is atated to have been introduced into Earope in 1889. Oa the authority of the ame journal from which the foregoing is gathered, referring to the interruption, owing to the war, of the Camphor trade of Japan and Formona, it is asid that effort are being made to get Ceylon planters to take up the caltivation of the Camphor tree, a few apecimens of which have been growing for some years in the botanical garden of the island. It is thought that in the parte of Ceylon where the climate in comparatively dry Cumphor trees would be a profitabla cultare. The great objection from a planting point of view, is of course, the loug time which mast elapse ibefore the tree become productive; but the seme objection was raised years ago against the caltivation of Cinchons.

\section*{EDITORIAL NOTICES.}

Advertinementes should be sent to the PUBLISBER.
Newapapers.-Corresponients sending newspapers should be carsful to mark the paragraphs they wish the Editor to ses.
HIastrattons.-The Editor will thaniffuly receive and seled photographs or drawings, suitable for reproduction in these pages, of gardens, or of remarkable plants, flowers, trees, dc.; but he cannot be responsible for loss or injury.

APPOINTMENTS FOR THE ENSUING WEEK.

MEET\|NGS.
GATURDAY, Not. 23-Eoyal Botamic Society.

CORRECTED AVERAGE TEMPERATURE FOR THE ENSUING WEEK, DEDUCED FROM THE OBSERVATIONS OF FORTY-THAEE YEARS, AT CHISWICK.-41号.

Thr Royal Botacic Society seems
The "Botanic." to have fallen upon evil times, and to be going through a crisis similar to that whioh befell the Royal Hortioultural Sooiety few yeara ago. Other points of aimlarity between the two Societies may be found in the retirement of the Superintendents in both cases, and in the abolition of the office of gardenmanager at the "Park."

We see that applioation is to be made to Government for a pecuniary subsidy to aid in oarrying on the work of the garden. We do not wish to undervalue the worl of the Society, but we imagine that before such an application oan be entertained, the society must be able to show some reason for the allotment of a portion of the national revenue for its support. The garden is charming, the houses contain some interesting plants, and useful work has for years been done in supplying students with specimens. As for the flower-shows, they have become so stereotyped that it is not a difficult matter for the reporters for the prese to concoot a sufficiently acourate report of any particular show by referring to the account given of the corresponding show the year before, An inspection of the prizelist, to see if perchanoe any new exhibitor is forthooming, is nearly all that is necessary, as we know from experience. The policy of the Sooiety, hitherto, has been to exolude the publio by a high rate of subsoription, to pander to fashion by evening fêtes, and even to descend to frivolitien, appropriate enough in a tea-garden, but quite unsuited to a Sooiety onlling itsell Botanic. The resalt of similar prooedures was badly exemplifed some jeare sinoe at the Royal Hortioultural Society, whioh, however, never
sank quite so low as to offer prizes for the decoration of donkeys. We have not a word to say against such diversions in their proper places and st saitable times, dulce est desipere in loco, but we demar to any portion of the taxes being devoted to their promotion; and we protest against the incongruousness of mixing up such amusements with the parsuit of horticultare, and still more with that of botany!

The work that the Royal Botanic Society has done for botany is not large; and as for hortioulture, it must be admitted that the influence it has exerted, and still exerts, is quite inconsiderable, as compared with that exercised by the sister society. If any Government aid is to be granted at all, it should be given first, and in fullest measure, to that society whose record is, in spite of many vicissitudes, and occasional backsliding, so highly honourable to it.

The royal horticultural Society.-The next Fruit and Fioral Meeting of the Royal Horticultural Society will be held on Tuenday, November 26, in the Drill Hall, James Street, Victoria Sbreet, Westminster; and at 3 PM , a lecture will be given by Mr. James Mason on "Asparagus Culture." The committeen will meet as unall at \(120^{\prime}\) Clock.

Horticultural Club.-The anal monthly meeting and conversazione took place on Taenday evening, November 12; the chair wan occupied by Mr. Geongr Paul. There were present Meare. Philip Crowley, H. Selfe Leonard, Geo. Monro, Petbr Kay, H. Tubner, J. Walker, \&c. Aa addrese was given by Mr. D. T. Fish, on "Flowere, Fruits and Plante in the Life and in the Home," it ranged over a wide area and many interenting facta were brought forward ; at it conclusion hearty vote of thanks wat proposed by the chairman. The table was decorated with Chryanthemum from the Royal Narseries, Slough; and some dishe of wellgrown fruit of Emile d'Heyat Pear were added to the deamert by the kindnene of Mr. Jambs Walierb.

National Roge Society.-A prize of five guineas, prenented by Alexander Hill Grax, Eiq. will be awarded by the above Society for the beat easay on the "Hybridisation of Romes." Intending competitorn are requented to forward their enays to one of the Hon. Secretarien-H. Honeywood D'Ombrain, Weatwell Vicarage, Ashford, Kent; Edward Mawley, Rosebank, Berkhamated, Herts, on or before March 1, 1896.

National Chrysanthemum Society.-The General Committee met at Anderton': Hotel, Fleet Street, on the 185h inst., Mr. B. Winne presiding. The Secretary reported some correapondence he had with Mr. J. Rrtchie, the chairman of the Royal Aquarium Society in reference to the imperfect lighting of the bailding on the occaaion of the exhibition at the Aquarium, eapecially in the matter of lighting up earlier in the day; and an amendment wa promised in respect of this matter. The Secretary also reported, that in addition to the Challenge and other Capn, Medals, \&c. the money prizen awarded at the November how amounted to \(£ 245148\), and he read a liat of the medals awarded to mircellaneons mabject by the arbitration committee, all of which were paseed ; an interim financial atatement was abmitted of a decidedly atiafactory character, the Secretary reporting that the chequea for the November prize-money would be cent out within the next ten days. A atatement was made on behalf of the Catalogue revising committtee by Mr. C. Hamman Payne, aetting forth the courne determined upon by that bods. A start would be made from the Catalogue isured at the time of the Centenary Celebration in 1890, thns superseding the two Sapplemental Catalogue issued in 1892 and 1891; a new alphabetical arrangement will be made, and the servicen of some thirty experta reaiding in variout parta of the country will be requented to
assint in compiling eelections of the beat varietien in their several sections. If is proposed to insue tha Catalogue in September, 1896. Three now Fellow and twenty-two member were elected. The nsual vote of thanks to the chairman closed the proceedingal

Botanical Magazine.-The planta figurid and dencribed in the November number are:-

Angrecum Kotschyii, Rchb. f., in Gardeners' Chronicle, 1880, ii., p. 456 and p. 693, fig. 131.-A native of Eatern Tropical Africa. The pendolons racemes have numeroun white long-spurred flowert, each abous \(2 \frac{1}{2}\) inches across. Sir Trevor Lawrence; \(t_{0} 742\).

Spathoglottis Kimballiana, Hort. Sander.-A native of Borneo. Leave 5-7 nerved, 4 ant, ( \(1 \frac{1}{2}\) incb) broad; flowers 8 cent. ( 3 incher) actos, egment oblong ovate, rather obtuse, pare yellon, internally red, mottled externally, lateral lobeu of lip ear-mhaped. Flowered at Kew; t. 7443.

Catasetum Lemosii, Rolfe, in Kew Bulletin (1894), 394.-A native of Hede Marago, Province of Pan, where it wan diacovered by Dr. Lemor. Flowers greenish, male only known; t. 744.

Amasonia erecta var. late bracteata.-A Verbenaceous shrub, native of Tropical Suath Amarich, and remarkable for its orate, rose-coloured bract, from the axils of which proceed short racemes of pendulous flower, with a cylindrical narrow tabe, and an irregularly 5 -lobed limb, with short white segments, traversed by pink veins. Introduced by Mearr. Sander; t. 7445.

Selenipenium Sargentianum, Rolfe, in Orehid Ro. view (1893), p. 239; Gardeners' Chronicle. 1891, ui, 781, f. 100. F. Sander; t. 7746.

The Book Gardener.-"In my younger dajni," writen Mr. Mrehan, "progremaive young men mero often informed by the eminently practical youth that he could grow Potatos just as well withoat any knowledge of the countrie they came from, the true nature of a taber, or the differences between a Cabbage and a Cauliflower. In many caser they could do so, but it was interesting to note as the years rolled by that while these excellent practical men never rose above raising Potatom and Cabbages, mont of thone with a broader education became eminent and usefal members of eciety." In the asme number of Meehans' Monthly from which we have taken the above, is a story of a practical gardewer twitting a companion who was reading his Mechans' Monthly, with, " Ob , is that the art of gardener jol are? a book-gardener;" and then comer the mond. The unthiaking man never advanced in hir proferaion. He is practical still-as the spade and the shovel.

The Reigate ano District Chrysanthe MUM SOcIETY. -This vigorous Society hat beta unfortunate this year in holding its show on a met day (November 8), and in consequence saffering ? considerable diminution in it gate-money. This is the more to be regretted from the fact, that the Society hands over each year a certain aum of mond to the Rojal Gardenera' Benevolent Intitution, and Royal Gardenera' Orphen Fund. In point of axcollence the exhibits equalled those of any preriont year-groupn, cut bloomn, and plants, being captes.

Campanula mirabilis.-Under thir name y Correvon speaka in the Revue Horticole of a specia diacovered in the Caucasus by M. Albofr, ad described in the Bulletin de bherbior Boistier, 5 , n. 5. It in dencribed an an exceptionally beatititu apecien, clonely allied to C. medinm, and gromivs naturally on calcareous soil. It is aupposed to bo 1 arvival from some previon geological era, mont of the representative of which have vanished, 4 Correvon has seedlings, no that we may hope in time to make the acquaintance of this wonderfil Campanala.

The surveyora' institution. - The asi ordiaary general meeting will be held on Moudal, November 25, when a paper will be read by No. R. M. D. Saunders (Fellow), on "Landlorde al Tenante in Ireland." The chair to be taket al 8 o'elock.

Meeting of the Bruseels Orchidéenne.The meeting held on Nov. 10 was a mont intereating one, and largely attended. Among the vieitore was M. L. de Bboyn, the Minister of Agriculture, who rarely fails to attend the monthly meetings of this society. Among the more remarkable
for the first time in 1894. These detaile, farnished by the exhibitor, are given in hopes that othere may follow his example. C. x Mantini obtained airatclan Diploma of Honour. M. Flor, Pauwels ataged a splendid Cypripediam Charlenworthi, the atandard of which is unurual in development and colouring;
aplendid Vaada Sanderiana, with two truaes, one of five, the other of eight fine blooms; and Oncidium Forbesi, with a pretty truss of benutifully tinted floweri. Md. Trieu de Terdonck showed Cypripediam nitens, which wae very beautiful. M. Knight, Director of the Rojal Parks, staged a large epecimen of Catt-


Fig. 101--catasetcar chbistyanum : flowess, ceccolate bown with anex hip. (ber 8. 618.)

Orchid I may mention the following:-From M. Georgen Mantin, Châseau de Bolair (Loiret): flowers of the hybrid Cattleya \(\times\) Mantini (G. Mantin) \(=\) C. Skinneri (Bateman), var. Bowringiana (Veitch), aub-var. floribund colorate (G. Mantin), \(\times\) C. labiata (LindJ.), var. Dowiana (Batem.), mub-var. aurea (Williams), fortilised in October, 1889, fowered in October, 1890, nown in Nevember, 1890, bloomed
M. Stepman nhowed a group of C. Charienmorthi, comprining six specimens, one of which bore an unuamally dark standard. M. Liaden aent a vory fing example of C. regale; apscimen of C. insigue montanm Lindenw, of jellow colour, mach admired by connoiseurn; Cattleya Warocqueana, bearing a great resemblance to C.gigas; C.marima gigantea, with the petala veined with parple; a

Jeya Warocqueans, a the variety with thirty flowert. M. de Lombaerdi went a beautifal C. aurea; M. Warocque, C. Warocqueana fulgens, of a pretty deep rose colour; M. Madoux, C. Gaskelliana, of a dietinet ahade of pale coloaring: MM. Lacien Linden et Cies, cat lowers of C. Triacoi, very good varieties; M. Van Imehoot, C. Warocqueans marmorata, of a beautiful dark colour, and with all the divisions of
the flowers indiatinctly atreaked; and Laslia Lawrenceana (Botanical Certificate). M. Madoux aloo ataged a Laxio-Cattleya apecier, with division of unuanal width and beautiful coloaring; M. Coppena, a very diatinct Cattleya Eldorado alba. In the houses of l'Horticulture Internationale there are now in bloom numerous varieties of C. maxima gigantea, C. Warocqueana, C. gigan, Catasetum, and Mormodes. Ch. D. B.

Technical Education,-A coarse of four lectures on the caltivation of vegetables and frait was concladed on Monday evening latt at the Public Hall, Fawley, under the auspices of the Hampshire C. C. The lecturer, Mr. Garner, of Cadland Gardens, Southampton, illustrated hia lecture with diagrams, showing both good and bad epecimens of vegetables, aleo the right and wrong way of pruning both the brancher and roots of fruit trees, as atandards, bushes, and enpaliers. The winter treatment of soils and it preparation for the reception of seed in apring was explained, and the economical uees and application of manures of different kinds were with the above listened to by a large attendance of the public at each lecture.

Requlations at the Drill-hall. - In reference to a note on this subject on p. 587, it is pointed out that our correapondent has been misinformed. The rule which is generally observed, and oaly occanionally infringed by inadvertence, is that the entry-carde are not brought up to the table, so that the committee is anpposed not to know, and often does not know, apon whone exhibit they are adjudicating. We can confirm this in the came of the Orchid Committee, where the chairman exercisea care to prevent the entry-card being seen till after a decision is arrived at. "Firat-clasn Certificates" are confined to new and rare plants, and are not given to floriste' flowera unleas they reprenent an entirely new type. "Awarde of Merit" only are given to ordinary seedinge, \&c. Some arrangement should be made to preclude mambera of the Committoen neeing the exhibita before the meetingg.

Newcastle and District Horticultural Mutual Improvement Society.-The monthly meeting of this nociety was held at 25, Weatgate Road, on Tuenday evening, Nor. 12, Mr. John Bullock occupied the chair, and there was a good attendance of membera. Among the upecimens exhibited on the table was a collection of Apples from Mr. Todd, care of Memra. Watson \& Co., nurserymen ; Carymanthemum bloome by Mr. Larar, Northdene, Gateshead ; and three aplendid pots of Cyclamen by Mr. Lawson, Heathdale, Gouforth, all of which were mach admired. Mr. Lawson, Heathdale, read a practical paper on the Onion, which was followed by discustion.

\section*{Shirley and Surbounding Dibtaicts Gar-} deners' and Amateurs' Mutual improvement Association,-The monthly meeting was held at the Parish Room, Shirley, Southampton, on the 18 ch inati, when Mr. E. J. Wiloox presided over a good attendance of the members. The "Caltare of the Muhhroom" was the title of a paper read by Mr. F. D. Woole, of Totton, who in a grower for market of mome experience. A long and interesting diecasaion followed, and a hearty vots of thanke to Mr. Woolf closed the proceeding,

Kew in September.-The fine weather in September iaduced many pernona to visit the gardens. On Sanday, September 22, the number reached 22,42\%. The highest shade temperature in September was \(28.8^{\circ} \mathrm{C}\)., ( \(8 \pm^{\circ} \mathrm{F}\).), on the 24 th . It was remarkable as following a minimum on the grass of \(0.55^{\circ} \mathrm{C} .,\left(31^{\circ} \mathrm{F}.\right)\). This, esya the Kew Bulletin, gives a range of temperature during the tweaty-four hourn of \(53^{\circ} \mathrm{F}\). The hot weather lasted exactly a week, the maximum temperature never falling below \(244^{\circ} \mathrm{C}\). \(\left(76^{\circ} \mathrm{F}\right.\) ), from the 23 rd to the 30 th.

Caube of "Finger-and-Toe" in Turnipb.The connection of an attack of "Finger-and-Toe" in Tarnips, \&c. with a previous impoverishment of the soil in lime, is woll shown by two noil analysea
juat completed at the Soath Eastern Agricaltural College, Wye (County Conncils of Kent and Sarrey). One portion of a 16 -acre field in the south of Kent was badly affected by "Finger-and-Toe," the rest being only elightly attacked. Samples of the soil taken from that part of the field where the dinease was prevalent, showed on analysis only 13 per cent. of available lime, while the soil from the rest of the field contained 43 per cent. Wherever " Finger-andToe" (Anbury or Club Root) showa itnelf, the land probably wants a dreasing of chalk or lime.

Professor Hellriegel.-The death of Profemor Hermann Helleigari, at the age of nixtyfour, removes the discoverer of the important fact that leguminous plants are capable of absorbing free nitrogen from the air, through the agency of microorganiams existing in the nodules on their roots. Dariag his career he devoted his attention almost exclusively to researchen dealing with chemical and physiological questiona relating to the natrition of plants. For some years he acted as director of the agricultural experiment station at Dahme, Brandenbarg, and after occupping other position, made the great discovery of his life at the experimental station founded by the Verein für Zacker-Induatrie, jointly with the government of the Dachy of Anhalt. Pharmacentical Journal.

Dwarf Form of Lillum auratum. -Mr . L. Comaing of Eastrield, Ragby, sends us a photograph of some plante of Liliam auratam growing only a foot high, and bearing well-developed flowers. The buibs were imported onen, and now, when in bloom, manifest no trace of weakliness or anhealthiness, the only unusual feature being the shortnem of the atem. Mr. Comming quentions whether this habit woald bo of permanent character, and if a aimilar peculiarity has been observed in other Lilies of this variety. The dwarf habit would have, for certain positions, a value of ite own, and such plants would prove a welcome addition to thone already known to un.
"Rubber."-A new woarce of thim precious material is brought under notice in the last number of the Kew Bulletin, where an Apocynaceous plant, Kickxia africana, is figured. This is one of the mont beautifal foreat trees of western tropical Africa. The rubber it produces is of high quality. A very important rubber industry was asarted at the Gold Coast by Governor Moloney in \(188 \%\) and ten yeare after the exports are noted as amounting to the annual value of \(£ 200,000-\) - remarkable and atriking inatance of the creation of a new indactry by official action. Similar meanarea have been taken at Lagor, in which colony the tree above mentioned grows. Iadeed, it extends from Sierra Leone to the Gold Coast, and beyond the banke of the Niger to the Bight of Biafra. The development of the rubber induatry at Lago is shown by the circumatance that in January the weight, in roand figarea, was \(21,000 \mathrm{lb}\)., the amount gradually increasing till in Jane of the same year the weight exported was upwards of \(268,000 \mathrm{lb}\)., and the value over \(£ 12,000\).
"Orchide, their Culture ano Manage-MENT."-A *econd edition of Mr. Watson's useful treaties hat jast been published by Mr. Upcotr Gilis, 170, Strand. This is a book apecially muitable for amateurs and beginners. The general principles of cultivation are clearly laid down, and if the grower once graeps these intelligently, the rest is a queation of attention merely. The arrangement of the genera is alphabetical, and alight descriptions are given of the most noteworthy species. The book is copiously illustrated, and well fulfill its object.
"Orchid Guide Book."-Mr. H. A. Burberry hat juat published a accond edition of his work, entitled, The 4 matewr Orchid Cultivators' Guide Book. We commend it to growers and to would-be grower: as a aimple and reliable aathority. It is not too mach encurabered by noten about floriats' verietien of Orchids, but given clear dencriptions of the sorts best maited for cultivation, and the means to be adopted to succeed with them, It in illuatrated with
coloured and other platea, and im of handy aize ; thiu, the new edition, being altogether an enlarged asd
improved one. proved one.
Synoptical Flora of North America, The first fascicle of thie work (prepared at the herbarium of Harvard University), in contianation of that commenced by the late Dr. Asa Gray and Dr. Watson, and, on the death of the latter, by \(D_{f_{0}}\) Robinson, is now ready, and incladen the orders Ranunculacem to Frankeniaceæs. A necond fanciello, dealing with the orders Caryophylliceee to Poly. gonaceex, was begun by Dr. Asa Grar, and is being continued by Dr. Robisson (the Editor), ansiated by Professor J. M. Cocirre, Profenor William Trelease, and Profemor L. H. Baiuz, This part is in adranced preparation, and will be issued at an early date.

\section*{CATASETUM CHRISTYANUM. (Fic. 104.)}

Thil remarkable apeciea was originally dencribed by the late Profensor Rsichenbach in the Gardemerd' Chronicle, May 6. 1882, when he mention ith affinity to the less showy C. saccatum, Lindl. It in, indeed, perhaps the most extraordinary of a lerge section of the genus Catasetum, having the curious bearded or fringed lip, and which invarisbly attract considerable attention when in flower, no matter how many thowier thing may be in bloom at the time in the ame house. For a long time the plant was very scarce, but recently Moserc. F. Sander \& Co. have imported it, and our illustration wat prepared from a plant exhibited by them at the meeting of the Royal Horticultaral Society, 0et. 29, 1895. In colour C. Christyanam varies in the different specimens, the sepale and petala being uaually chocolate colour, and the lip greenish-yellon, with dark parple fringe; but in some the petalia are alightly freckled with green. It is pleasant to notethas in several collections the Catasetumsaregiven a proper amount of attention, and in each case they amply reward their caltivatora with their aingular flowen.
There appearn to be but little difficulty in groming Cataseta if the proper cool reating easaon after the leaves wither in observed. It was the neglect of this which upjastly got for them, in former timet, the character of being difficult nabjects to grow.

\section*{ABOUT CHRYSANTHEMUMS.}

\section*{(Continued from p. 580.)}
at Castla Hill Nugsbries, MadbrneedoAfter a journey to wee Mr. R. Ower's collection at these narseries, we have a very good opinion of many seedlings now in bloom. Possibly nome weeding out hat already been done-though we do not know thin to be the case ; but whether or not, the percentige of promising varieties among the unnamed needling appeared to be good-certainly higher than that which usally rewards the raiser of new Chrganatheo mums. Mr. O wen has a few nice span-roofed houther, in which the plants are aheltered; and thought there of is consequently no effort made to mase the mhole of the plante to produce a general effect, the display in each hoase is by no means inconoiderable.
The firat novelty to be noticed wan a aport from Robert Petfield, which has been called Chas. High, As far as could be seen, this is a aport in respectit to colour only, the habit of growth of the plantand the quality of the bloom will probably be about equal to the type. In colour, the bloom is pale rosyo purple, and on the reverse side the petale are golid of bronzy at the tips. Whilst speaking of inccurrode mention should be made of Mre. R. C. Kingaton, one of the very largest of the newer incurveds. The florets are not broad, but the flower is high and goow colour full rose tipped with white。 Chas. H, Cartil (H. J. Jonen) was noticed in more excellent form thin we have seen it on the plant previoualy. Copper King is a promising needling from America, flowars deep bat not very large ; and Misa E. Smich, an incurred and twiated Japanese, a pretty mixture of niver and rone. Lady Ridgway is an English seading of marm buff, base of the fiorets rone coloured, the flower globular, florets not long but very numeronis. Mra

Higginbotham is a first-clana, large, hairy variety of rony-lilac and silver, Pride of Maidenhead, a longpetalled loose Japanese, white with lemon centre. Jao. Lightioot, a silver-coloared Japanese, with lilac-rose-margined florets, gradually apreading over name as the llower develops; floret forked. Certifi cated by the National Society on the 11th inst.

Amongat a number of unnamed seedlinge was noticed a very wide-petalled Japanese, slightly twiated, and an incurped Japanese white, both of which were full of promise. Graphic is a Japanene incurved with a very large flower, and broad florets, upper aurface striped rose, below milvery. A seedling Anemone-flowered variety from America, pale lilac in colour, lacking grace; and Freedom, an American seedling, Japanese of warm blush, wero noticed; and two Continental introduction are Madame Lebeque (Chantrier), a globular Japaneae reflexed, white, with amber-coloured centre, when fresh; and Dame Blanche (Crozy), a white, amooth Japanese, in the instance under notice, having more yellow on the otherwise white flowers than we had previouly seen.

\section*{At Dover House, Romhampton.}

The collection of Chrysanthemums annually cultivated in the gardens of J. P. Morgan, Esq., is like in mont reapect to some others we have seen in wellappointed private placen. Though none are required for exhibition purposen, the syatem practised is essentially-but not quite-the wame as where the firat prize in a particular competition is the expected finale of all the care and laboar expended on the plant during the gear. Naturally, therefore, when the planta are grouped together in the vinerien or other convenient atructure, they furnish a display quite worthy the visit even of the apecialist, for he will be sure to see good exhibition bloom: of many of the choicer as well as of the latent varieties ; and, moreover, the plants present a better cared-for appearance, by reason of their dwarf character and their retained foliage, than in nometimes the case when the grower's aole object has been to secare flowers for his exbibition atand.
To some minds, perhapm, it may aeem wasteful to grow large blooms at the expense of numeroussmall onea, when the purpose is but to provide material for cutting. We do not think so, but, on the contrary, are of opinion that the beat cultare of ordinary varieties, if the object is to furnish vases in livingrooms with blooms, is to une medium-nized potspots 9 inches in diameter are quite sufficient in mont cases; grow the plants well and fairly strong, and thin the bloom to three, four, five, or aix to each plant, according to the habit of the variety. By auch means excellent bloom are obtained, of good aize and colour, and these are more handsome, and will last very mach longer, and are, therefore, no more expenaive than thin, mall, poorly-developed flowerm. We aid ordinary varieties advisedly, because there are some which we generally style decorative varietien, and there are the aingle-flowered and the Pompon-flowered artw, which are admittedly more effective, when little, if any, thinning is practised.

The collection under notice numbers about 1500 plants, and Mr. J. F. Mc Leod has added almont all the novelties that have proved themelves worthy a place in a collection containing already as many as 367 varieties. It is thought, and reasonably enough, that this number is needlessly large, and Mr. Mcheod intend to weriously reduce it before another seanon. As most of the varieties which have done well here thin meason have been noticed pretty fully in other collection, we wall only mention a few that were conspicuoul a week ago. In the first place, a word in deserved by Golden Gate, a very pretty Japanese flower of coft yellow mooth floreta, and no doubt very good one to cultivate for cutting from; the planta only grow moderately high. Jno. Shrimpton, with unally four blooms on each dwarf aturdy looking plant, is likewise very useful, the habit being so good. Sunflower in not slwaye kind, but here we noticed a namber of good bloomn. Robert Owen, MdUle, T. Rey, Viviand Morel, President Borel, Mrı,
F. Jamenon, G. C. Schwabe, H. L. Sunderbruch. Florence Davis, Emprest and Golden Emprens of India, Golden Beverley, Hairy Wonder, and Jno. Salter were all good. A variety much in Mr. McLeod' favour is Lady Saunders, a tolerably ahortgrowing good habited Japanese, bearing mooth white flowers with warm lemon centre when first opened. Madame Calvat, a moderate-aized Japanese flower with broad forete, and Dake of Wellington, may also be remarked. Anemone-flowered ortsincluded the old Fleur-de-Marie, and the new and excellent Descarter; also La Marguerite, violet-parple; Delaware, white, with pale lemon centre; and Marguerite Solleville, lilac, tipped with shaded white. Liberal and excellent culture is afforded everything that is given a place in this garden, and there will soon be a capital diaplay of early-flowered Cyclament.

\section*{At Mer Stevens', Putney.}

For very many yeara has Mr. Geo. Stevena been growing Chryanthemams at Patney, and during these jears he has raised and introduced not a few sterling varietien. He may have been engaged ia the work thirty seasons, perhap more; certainly, not appreciably fewer. Now, however, his concern chiefly reats in the cultivation of blooms for the market, and for the florist's buaness, repreaented by his shop in the High Street. There can be no quention that Chrysanthemum culture for market was rewarded a fow years eince by much higher prices than can now be realised; trae, the public are buying these in common with almost all kind of flowern more freely now than they have ever done, but parallel with this is the better aupply. \(O f\) late jears, not only have a greater number of growers to be reckoned with, bat many of these cultivate the plants in prodigious and hitherto unheard-of numbert, These large producer are also content with auch a retarn that mut make many of their contemporarien wonder how and by what mean they secure any profit at all. The outcome of all this is, without doabt, a boon to the pablic, who are now able to get cheir "bunch" of Carysanthemums for as few pence as once they paid hillinge. On the other hand, the grower themselves are driven to the atrictent economy in labour and other renpects, and they mutt grow only varietie which by reamon of their adaptability to the production of a quantity of bloom, will furnish a profit at the present market prices. In apite of this, there is little doabt that the 4000 plants which Mr. Steven cultivates give a good account of themselven when the blooms are upon the market, but he is inclined to grow fewer large blooms than formerly, owing to the desire of the buyer to have an large a number as possible for the price he pay.
Among varieties in bloom a week ago in this collection were Florence Percy, white, incladed owing to its diaposition to free flowering. Mdlle. T. Rey, a very uneful nort for supplying a number of better-clan blooms; Wm. Stevent, a variety rained by Mr. Steven some aeven yeara ago, and nimilar to Soarce d'Or, bat of better colour; W. H. Lincoln, than which few varieties are better auited for market sapply; Rabra perfecta, a pretty little crimaon flower; Golden Gem, of which a number of plantw were in bloom; and Mra. C. Orchard, another of the Soarce d'Or class. Boale de Neige is still kept in good quantity for the production of white bloome at a late date, though the flowers are not \(e\) pare as could be wished; and L. Canning is grown largely. As interesting as any, perhapa, was a batch of Niveum, with a number of good blooms apon each plant. It will likely prove very desirable from the market growers' point of view for the aupply of what they term " better-clan blooms." \(P\).

Allanthus Bark.-Mr. David Hooper, is the Pharmacoutioal Journal for October 26, hat an article on the medicinal qualities of the bark of this tree. The bark is intensely bitter, and is used in dymentery and as a vermifuge. It would in all probability be as good an insecticide at quaseia.

\section*{Home Correbpondenoe.}

BPORTING IN POTATOB.-I cannot admit, in response to "D. T. F.'s" aggeation, that I have met with namerous eport is Potato in my time. So far from that being the case, I have very rarely met with a aport: indeed, in my own pertonal experience, never. Mr. Fenn has a striped Potato which he seys aported from the white Rector of Woodatock: and Mr. Chopping, of Sittingbourne, ham a pretty mottled Potato which is asid to have aported from Vicar of Laleham. I know only so much of them. The aportivenens I have chiefly met with in relation to Potatos is their tendency to appear from time to time ander diverae appellations-but Nature hat nothing to do with that, Divervitien come only at the prodact of intercrosning the flowers, bat that is not aporting. If I were told that a white finh Potato had aported to a yellow one, or vice versd, I abould simply laggh at the angeetion. Naturally aceptical, I am not credulous, and always doubt what perwonal observation lead.me to regard as the reverse of fact. A. D.

THE TRUTH ABOUT PRICEs. - My scepticism as to the amount of the prices mentioned in the prize enay is not to be regretted, since it ham produced positive proof that such thing are; but let no general market grower llatter himeelf that he can obtain them. He may atrive to grow his frait well, and insist on his gatherers rejecting all unsound Apples, so that they may not infect his atored heapm. Hi may sort and pack carefully, and allow no unfair trading, to that he will gradually acquire a good character. Then his goods become known and appreciated, and are enquired for and cleared off the alenman's atand, while other aro neglected; bat he certainily will not get double the prices ruling in the market. Mid, Kent.
requlations at the drill.hall meetinas. -It is much eaner to auggent what bould be done to secure absolate snonymity for product of any description sent or brought for consideration by the committee at the Drill-Hall meetings, than to earry them out. No doubt all that "Vivitor saggeats could be done, but, all the ame, in the majority of caesen it would be known whoee exhibite were presented. It is so difficult for myone to take produce to the Hall and atage it without being seen and noticed by membern of the committeen. Still farther, it is very possible for many members to tell intuitively from whom thinge come. If anonymity cannot be absolutely secured, what use is it to attempt eocaring it at all. But again, what harm in done if it be known to whom the reapective products belong? It would be a matter of surprise to learn that sach knowledge made any material difference to the awards. I can speak for the Fruit Committee, at least, and say that it treats everybody, membera or non-members, known or unknown perton, alike; merit in the products alone secures award. It mast be anderatood that in entering for the respective committees' award, there is no competition. At ordinary exhibitiona, auch eecresy as to exhibitora may be desirable ; although I think few men would, as judges, be influeaced by pertonal knowledge of the competitort. In any case, I do not think any evil reandes at the committeen from the prement aytem. If there be aay, I have not seen it. \(A\). D.

ANONA CHERIMOLIA. - Amongst the Kew notes in laet week' inue of the Gardewers' Chromiche, mention is made of the succenaful treatment of this plant. When living at Warwick a friend gave me a plant of it, thinkiag I might be able to fruit it. I kept it in an intermediate-house, and gave it apecial attention, but without nuccem. I have an idea that if it was treated as Peaches are in a Pesch-house (a) your correspondent recommends), good resulte would be obtained. I thould like to know what age tho plant now fruiting at Kow is, and what it the ajze of the pot that it is in. Geo. Burrooos, Berwiok, Shrecosbury.

LILIUM AURATUM AT BRICKLEHAMPTON HALL GARDENB.-A bulb of the above Lilium wat parchased in the early apring from Mearrs. Sutton \& Sone, of Reading, and potted in an ordinary compost, used for the generality of greenhouse plante here. It was kept in a cold frame uatil it warted into growth, when it was tarned out-of-doors, and planged up to the rim of the pot in coal-amen. Daring the summer it was attended to regularly with water; when the pot was filled with roota, we gave it weak manure-water occationally. At 1000
as the buda began to appear, and the firat flower ready to expand, it wam removed into the conservatory, where it remained until the blooming period was over. On August 12 it contained thirty-two expanded flowers, and one bud unopened, when the photograph wes taken in the conservatory. The thirty-third flower opened ahortly after, and before any of the othera began to fade. It was a grand sight ; the grateful odour exhaled filled the house with most delightful perfume, and it was the admi yation of all vieitore during the time it wa in flower Edward Lott, Bricklehampton Hall Gardens.

TODEA SUPERBA.-A magnificent apecimen or the above was noted last week at Brinkburn, Dar lington, the seat of H. F. Pease, Esq. 'The plant measures from tip to tip over \(6 \frac{1}{3}\) feet, and at the present time it is carrying five years' growth, and the fronds are of the most intense dark-green colour, feature which diatinguishes healthy plants of this pecies. I was informed by Mr. Wand, the gardener that the plant is twenty-seven yeark old. So fine a plant indicates verv careful attention during a long period of time. The house is unheated, and the temperature in it last winter was as low as \(12^{\circ}\), or \(20^{\circ}\) of frost. In the ame house is a grand mase of the Killarney Fern (Trichomanes radicans) in a 24 -inch pan measuring over 5 feet across. J. C.
the crab for flowering and fruiting I am very glad to see Mr. Harrison Weir and others trying to bring the Crab an prominently before the readers of tha Gardeners' Chronicle I quite concar with "D. T. F." that many of our shrabberies are too mach filled with evergreen shrabs, which are very good in their way, bat when nothing elee is planted our gardens and landscapes are apt to become tomewhat monotonons. A judicious mingling of deciduous trees and ahrubs would have an entirely diffarent and more agreeable effect. Crabs being both uaeful as regarda their fruit and ornamental, sither in frait or flower, should be more commonly planted in the shrabbery than is now the case, and also at ths margins of ornamental plantations, where they would show out well in contrat with the more nombre hues of other trees. Bat why ahould we not plant a numbar of the strongest and hardient of one Apples, auch as atandards, amongat the shrubbary and ornamental borders, for nothing looks batter in the spring, nor could there be anythiag more urefal in autumn. I have seen Apple-blossom greatly in demand for decorative purposes when it could be had. Bat no one would care mach about cutting blossom from a tree they expected frait from; bat, on the other hand, if there was a number o Crabs and Apples planted amongst the shrabs and odd corners, the blossom could bs taken without fear of in any way cartailing the sapply of fruit in the garden. I once planted a large shrubbery with groandwork of the common Liarel and Rhododendrons, dotting it over with standard trees of th Apple, Crab, Crapægus, Almond, Pranus, and Liburnum, and the effect was exceedingly fine. D. \(L, M\).

CEDRUS LIBANI BLOOMINQ OUT OF BEABON. A ccording to my exprrience, the Cedar of L:banon blooms in May and June. I was therefore arprised to see, about the middle of last month, a tree of middle sizt growing in Tooting Graveney, the brancher of which were laden with a great number of it jellow flowera. Are Cedars generally blooming at this unumal senson about the country, or is the above an exceptional occurrance? William Earley.

DIPLADENIA AMABILIB.-When well done this apecies ranks amonget the moat showy and unefal Gtove climbers we ponseas. When at Chevering Park Gardens, Sevenosks, a few days ago, I foand the roof of the atove adorned with this plant and the beartiful Dipladenia bolivienuia, and a grand specimen of Allamanda Hendersoni, all of them flowering profasely, enpecially the Dipladenia amabilis. This plant is growing in a 20 -inch pot, and coveras roofpace of 21 feet by 6 feet. It has had apwarde of 150 racemes of flowers, the strongent of which bears no fewer than from thirty to forty blooms, it being a wonderful example of good caltivation, and one which naturally enough attracted my attention. Allround gardening is done well at Cheverivg Park, Mr. C. Satectogreat credit upon the head gardenor Mr. C. Satton. 4. 0.

THE ROYAL HORTICULTURAL gOOIETY AND OHIAWICK OAADENB. - No doubt when Mr. Barron formally retire from the management of Chiswick new arrangements will be made in connection with
the management of the gardens, but that nuch arrangements matt necessarily be improvementa is open to question; at the same time, it is to be hoped that some atep may be taken in order to render the Royal Horticultaral Society and it doinga more truly national. The importance of horticultare, abd especially commercial horticulture, is daily becoming more apparent ; and the aim of the Royal Horticul taral Society in the future should be to fonter horti culture as a national industry. The Society ihould encourage, by all means in its power, all efforts made to improve caltare, to increase and improve varieties and to extend the use of fruita and vegetables as ementials of daily national life and health, and also the free use of plants and flowers asimportant factors in the anm of human happiness. There can be no doub the frait, the pablic in a freah and proper way, constitute an important element in the production of a contented and healthy atate of national life. Amateur horticalture should, of course, be encouraged by all the means at the diaponal of the Royal Horticultural Society, but at the ame time much prominence should be given to the importance of commercial horticultare. In these times of enormous foreign imports of fraits, flowers, and vegetabley, not tn mention egge, poultry, and butter, it becomes us as a nation to seriously conaider whether or not we can compete more thoroughly with the foreigner. Preferential railway rates in favour of the foreigner exist at the present, but is it too mach to hope that a time is coming when this will not be the case? Is it too mach to hope that British agricultuiste will rise to the occasion, and go in for producing more of those articles that are always in demand: And is it too mach to hope that the Royal Horticultaral Society will become alive to the importance of foatering, by all means in its power, the important induatry of British horticalture. in sll its branchen? The immense importance of fresh, well-grown fruits and vegetablea is daily becoming more evident to the people generally. A better general atate of health can be maintained by the jadicious use of fresh fruits and vegetables than by any amount of mediciner. The sooner this comes to be universally acknowledged the batter for our people and if the Royal Horticultaral Society wil people, and make it itn endeavour to epread abroad the glad tiding of peace and good health to men and women through the extended ase of fruits and vegetables in a proper condition, the Society will have done much to earn the national gratitude and to desorve nationa nupport. John Thomson, Clovenfords, N.B., Nov. 13.

Thank you for your leader on Chiswick It is aid that history repent itself, bat another Lindley is not likely to appear there, I should say I think it is time the Royal Horticultural Society Council gave the Fellows eme notion of their pro posed new movement. Oae thing is pretty clear there will be no peace and progress till the governing body pate itself more fally in touch with gardeners generally. As it is, the Royal Horticaltural Sociaty is simply a trado society-it scarcely toucke the amateara or gardeners of England beyond a radina of 30 miles of London. My idea is, that such society ahould have branchea or agencies in all large centres of the British iales, and especially it ahould bind all bona fide gardenern into a nationa society, or union, or gaild, call it whatever you will. Pottering about in London, giving medals to nurserymen, and helping them to advertise their goods, is all very well in its way, ao is the carrying on o trials for the trade at Chiswick; bat there is a higher and wider field untouched. We want anion, we want science, we want progrens and extenaion and if country gardenere will not come to the aociety in London the Society must go to them. F. R. H. \& [An elaborate acheme for the institution of local secretaries and branch eccietie was formalated at the time of the exodan from Kensington, but nothing has been heard of it since. Perhap the failare of the last provincial show at Liverpool diacouraged further efforts in that direction. It was certainly worthy of a better fate. ED.]

A FREAK OF NATURE. - The production of a green pitcher on Nepenthen Cartiaii in these gardens is an occurrence worth commemorating. The plant, a amall one, carries only six normal pitchers, besides the green one. Thic freak may not be uncommon, although no similar cate has hitherto come ander my notice. By stopping the shoot immadiately above the leaf which possenses the green pitcher, and thus cause ashoot to break from ite axil, it in possible that a sport may be secured. Thon, Coomber, The Hewdre, Nownowth.

\section*{SOCIETIES.}

\section*{ROYAL HORTICULTURAL.}

\section*{Scientific Committee.}

November 12.-Present: Dr. M. T. Mastert (in the chair); Mr. McLachlan, Mr. Michael, Rev W. Wilks, Dr. Bonavia, and Rev. G. Henslow, Hon. Sec.
Death of Prof. Riley.-Mr. McLachlan spoke of the gree oss sustained by the death of this eminent entomologita of the Museun of Natural History, Washington. Ho wa the State Entomolugist of the Agricultural Departmenk, formerly for that of Missouri
Hybrid Asters.-With reference to the specimors wat of the last meeting by Rev. C. W. Dod, Mr. Dewar reports as follows:-"Although not quite prepared to agree with him fully, neither am I disposed to materially difer from his suy positions. 'The chief difference was one of colour; the flower of the supposed hybrids are undoubtedly somewhat larger than I have before seen; the colour, however, is quito
distinct from that of typical A. Thomsoni. The ceos distinct from that of typical A. Thomsoni. The crow
between A. Thomsoni and A. Pyrenæus (?) is in every respect, except its large flowers, typical A. Thomsoni The other cross (?) differs little except in colour of flower from seedlings. A. Thomsoni is a very
variable species, becoming of course considerably more so by cultivation." Mr. Dod having kindly forwarded more so by cultivation." Mr. Dod having kindly forwarded fruiting specimens of A. Thomsoni (Clarke) and of the hybrid The leaves solected from simi'ar places were much larger and broader in the former, with mure serratures; the hair out the stem were shorter, but the involucral bracts were lew hairy, the tips being nearly glabrous. The pappus wa markedly ihorter thall that of the hybrid; a few bore ripe achencs. In the hybrid several of the ray florets were bisexual with perfectly free stamens, the anthers being more less rudimeutary; a few of the ray corollas were of the quilled form. Ali the ovaries, disk and ray, were abortiva The above characters might be varietal only, but the presence of stamens, sce, perlaps indicate the efiect of crussing.
Fungus on Pears.- With reference to the specimens receivel from Messrs. Veitch of Exeter, at the last meeting, the fol lowing report was received from Kew:-" The fungus on the Pear is Mouilia fructigena, Pers. The individual patches of fungus are limited in extent; the first formed exhausts the necessary food for a limited distance beyond its fruiting area Its sporen germinate and grow just beyond this sterile zone, hence succeeding cropis are more or less concentric, and hence succeeding crops are more or less concentin, thei separated by narrow ster
thus resemble Fairy-rings.

Cocos anstralis.-Dr. Masters exhibited orange-colour Plum-like fruit received from Antibes, and sent by \(Y\) Naudin, and also by Mr. Hanbury from Lia Mortola. Itis native of Paritguay and Chili. It was the first occasion of a Pine Apple
Cypripelium, Hybrid.-Mr. Veitch sent plants of C. Minosh (male) and Cors of the parents-viz, C. \(\times\) Arthurisinual (male) and C. spicenitnum (female). The furmer is the reo a cross between C. finsigne \(\times\) C. Fairieanim. Two sping from the sarne pod showed considerable "dissociatia, the in that one mure resembled the male, and the other the emale; but the peculiar purple and white stuminode of the nale was lust, the green one of the female parent bein present in both. The spotted perianth of the male was very pronounced in one, while the white sepal of the female wo the female appeared on both.
Rhodulemdron, Hybrid.-Mr. Veitch also sent a now form Hhodnchulron, Hybrid.-Mr. Veitch also sent nowne, indico-javanievied
multiculor var. Curtisi. Indico-javinicum resultiod from crossing Lord Wolseley (a bybrid containing the than true species, K . jasminiflorum, K . javanicum (twice), R. Broukianum var. gracilo) with Azslea indiva, "Stella. This pruduced rather contracted flowers of a brick rod culour.* This was crossed with the small crimson.flowerem ( 1 inch) R multicolor var Curtisi, Numa bears large flown 2 inches) of a deep red orange, with a shorter tube than tha of the female parent. Hence the effect of the male in of the female parent. Hence the effect of the manale, the transmit the form of the corolla; but that of the Iarger an colour as well as the foliage, which is lanceolate,
broader than the leaf of \(\mathbf{R}\). multicolor var. Curtisi. Bluch-skinned Apple.-Dr. Masters exhibited an Apple, the rind of which was of it deep purplish black colour, the collume tissue within being light brown, apparently due to fermad tation. It was forwarded to Kew. Mr. Michael remarkilar that he had known Blowheim Orangee to assume a simili appearance.
lies, Dead, adhering to Barley.-Mr. Henalow exhibitods specimen propared by the late Professor J. S. Henslow, 1840, of fies attacked by a fungus, and which had died further ears of Barley.
investigation.

\section*{KINGSTON CHRYSANTHEMOM.}

November 12, 13.-Held, an unual, in the rooul but very cold Drill Hall, and, for the time of you in fair weather auapices, the Kingaton Society in

Tigured and \$loscribed in. Journ B.EIS, rol xilily \(p^{\text {t }}\) p. \(23(1821)\)
bo congratulated on having a capital show. In aome features, perhaps, notably in the popular Challenge Vase class, there was a falling off in the competitions, but in the fruit clasee a great advance. The achedule inclades so many classes, nambers of which are merely local, that we present results only in those of wider intereat.
Plants. - The miscollaneous groups were relieved from their umal dulness here by a very light graooful arrangement set up by Mr. Ridge, gro. to EWIMFEX EıDY, Req., Q.C., Weybridge, who was a good lit. Mr. F. Hopkiag, Er. to Mrs. Wodderspon, Walton, was 2 ad ; and Mr. Tekell, gr, to B. F. S. MCGMACE, Keq., Kingston, 3rd.

Chrysanthemum groups were of the vaual very wolld order, simply plants and flowers orowded into a semicircular mases. Mr. French, gr. to Mre. Barclar, Wimbledon, was lat, having the best front; Mr. G. H. Hage, gro to Karl Dysart, Ham Houes, coming 2nd, having the freshest blooms, but bid front; Mr. Porbes, gr. to D. Nictiol, Eeq.o Surbiton, came 3rd.

Trained Plants.-Siz very fine apecimens, suparbly bloomed, ware shown by Mr. Swan, gr. to MUrray Smita, Esq., Weybridge, who had Florence Davis, W. Tricker, Mrs: Stevens, Ping Chriatine, Mra. Dixon, and Mra. G. Ruvdle. Mr. Pend, gr. to R. S. Bond. Req. Surbiton, was 2nd. Mr. Swar also gr. the beat three trained plants. The best three standard esme from Mr. King, gr. to A. F. Perkins, Eqq., Holmwood, who had good apecimens of Viviand Morel, Pink Christine, and Chinaman. Mr. Swas wee again lit with four trained Pompons, having Black Douglas, Bose Margaret. W. Wentlakp, and Marguerite St. Coo; Mr. J. Plowman, gro to C. LATERS SMITH, Kaq, Long Dition, was 2ad, with better flowered plants; Mr. Pead came 3nd.
Cut Blooms. - Only four growers compoted for the seventh grand Challenge Vase this time. The competition comprised twentr-four Japsnese and twenty-four incurved flowers. Lest year the Cup was won by Mr. Higgs, gr. to J. B. Hankey, Esq., Fetcham Park, Leatherhead, who takes the 1st place this time, and thus in two years wins the trophy outright. He had fine incurved, the varietioe as they ran from back to front being L. Lambert, Lord Wolseley, Joanne d'arc, W. Tunnington, Princem of Walon, Violet Tomlin, Lord Alcester, C. B. Whitnall, Lord Rosebery, Mrs. R. C. Kington, and othera of recognised merit. Of Japanoes, the best were Mdlle. Thérese Rey, Charles Davis, Mons. Panckoucke, Deuil i'e Jales Farry, Sudflowar, Viviand Morel, Cal, O. B. Saith, M. Marie Hoato, W. M. Soward, and other popular varietien. Mr. Hunt, Rr. to P. Rachi, Req.a Ashatoad Parly, Was Violet Rose, Sunflower, Col. Chase, Madame Marie Horte, V. Morel, to : Mr. Nerille, gr. to Y. W. Fleart, Erq, came 3rd, his stand including a Rcod Madame Carnot ; Mr.
Q iarterman, gr. to C. E. Smith, Esq., Cobham, was 4th. Q ae executive will now havo to provide a new Vase for next year.

Incuroed B'ooms. - In the class for twenty-foup, Mr, Meses, gr . to A. TATE, Esq., Leatherhead, Whs a good let, having fine
Howera of Lord Alcester, Maj)r Bonnajon (selectod as the pre mier incurved in the show), J. Lambert, C. H. Curtis, Rmpress of Iadia, Lord Rosebery. J. Doughty, Golden Empress, Jeanne d'Arc. Princess of Wales, Globe d'Of, \&c. Mr. Higas was 2nd, with very fair flowers. In the class for twelve blooms. Mr. King was let with fine flowers; Mr, Ridge coming 2nd; and Mr. Coombes, gr. to W. FUrse, Esq, Teddington, 3rd. In the class for air bloma, Mr. Quarterman was lut, haring good Qaeen of England, Lord Alcester, John Lambert. Kmprew of
India, Violet Tomin, and Mies M. A. Haggas. Mr. Mirciax, India, Violet Tomlin, an
Leatherhead, was 2nd.
In the class for six blooms of any variety, Mr. Higes was lat with Larga, bat rather rough, Empress of India: Mr. Felgate, gr. ts the Duchess of Welungton, Walton, having Violet Tomlin, 2nd; and Mr. King was 3rd with Robart Petfield.

Japanese flowars ware very plentifal, the bent twenty-fout coming from Mr. Mense, who had very good Viviand Morel, Mr, Owen, Silver King, Good Gracious, W. G. Newett, Golden Gate, Charles Davis, Mrs. W. H. Leen, Dulke of York, de. Mr. G. Elliott, gr. to P. W. Grafick, Req., West Molesey, was 2nd, having some very fine flowers. Mr, Standing, gr, to Mr. Goad, Worthing, was 3nd.

Mr. King had the best twelve Japanese, including fice Viviand Morel, Sunflower, Lord Brooke, Louise, Mdlle. The è se Rey. Vicoouatess Hambledon, tc. Mr. Coombrs was 2nd, and Mr. Holden, gr. to C. W. Izod, Eqq., Eoher, 3rd.
being 20d. In the clas for ir Japanens of Quirtermax being 2ad. In the clans for ix Japanese of one rariety, Mr. Kiwg was lat, with fairly good Mdlle. Thérèse Rey: fine Golden Gate and Madame Carnot (the premier Japanese bloom) from Mr. C. HUNT, who was 2nd; and the first-named from Mr. Higgs, 3rd.

Other Sections.-Mr. Mesese was egain to the front with the best twelve reflezed, having the ususl varieties.
Jap inese Anemones were very good indeed, the beyt twelve coming from Mr. Turner, gr. to O. F. MuRrar. Req., Epsom, Who had Sir W. Raleigh, John Bunyan, Enterprise, W. W. Astor, Madame Julea Benedict, \&c., very fine. Mr. C. J. Waito, gr. to the Hom, Col. T^Lbot, Ebery, Was 2nd; and Mr. Spriagthorpe, gr. to A. A. Beavas, Esq., 3nd.

Mr. J. Plowman had the best 'Anemone Pompons, and the bent twelve Pompons in trebles. With three variotios of the Hundle family, six blooms of each, Mr. Read was lat.
Singles were very fine indeed, and beautiful. The beat box Of twelve varieties came from Mr. Forbes, whu had Adeiral Meymour, Charmiag, Rose Pink, Purity, Mary Anderion, \&ec.:

Mr. Micheim had the beat six table plants; and Mr. Port-
bury, gr. to W. N. FROYD, Eeq., Putaey, the beat nine plant it whilst the best six Bouvandian came from Mr. PEad.
Mr. Erence had in well-fruited, long red Capaicums, the best berried planta; and Mr. Mirliay the bent six double Primulas.

FRuIt.
These Exhibite were plentiful and good. The beat four dishes of various kiads from \(\mathrm{Mr}_{\mathrm{v}} \mathbf{W}\). Davies, gr. to J. B. CHappell, Keq, Toddington, who had Alicante Grapee, amall Piat, Cos's Orage Applet, and Beurré Diol Pears; Mr. G. H. SiGE was 2ni.

Black Grapes were in flae form, the beat, pretty, well-finibhed Alicante coming from Mr. G. Ellott: Mr. J. Burr. Byfleet, coming 2nd, with other good Alicantes.
The best whites, all bela, Muscat of Alexindria, were from Mr. Taylop, gr. to 8. Bayren Eeq., Forest Hili: Mr. Cole, Mr. Taylof, gr. to 8.
There were fifteen lots of dix dinhes of Apples, Mr. Wics Taycka, Hampton, comidg lst. with beatiful examples of Cora Orange, Riboton, and Kiag of the Pippins. Emparur Alexander, Annie Elizabelh, and Blenheim Pippin; Mr. Tubb, gr. to B. Ourrie, Eeq.o Frimley Manor, Faraborough, was znd The best four dishes of Pears, came from Mr. Daviles. He hed good Doyenné du Comice, Glou Morceau, Beurfé Boec, and Beurré Diel.
Mr. C. J. W Artw had the beat baket of vegetables.
A nice collection of fruit was shown by Mr. Wilt Tayker and Mesars. Tuttock and Sheprerrd, exhbited a capital dish of Bórioart de Thury 8trawberries from the open ground quite ripe.

\section*{FARNEAM, SURREX.}

November 12.-This exhibition was held in the Corn Exchange and the Assembly Rooms, each of which was well filled, whilst by judiciously engaging two rooms there was no overcrowding in any section of the show.
Groupa were a feature. Mr. Cresswell, kr. to Miss Kkwiedy, Aldershot Park, wain denervedly lat, both from point of quality and arrangement. Mr. Gaymer, gr. to Mra. Anderson, Waverley Abbey, Farnham, wan a good 2nd, In another group clam for trade-groweri only, Mr, Mortimer, Bwins Nurnery, Rowledge, was an excellent lst with plants not so severely disbudded, each plant bearing several fine flowers, with buds also showing colour Mr. B. Bude, Alma Nureery, Farnham, who wai 2nd, had done even less thinning, this group being very bright and showy
Spec
miscellaneous ond Farmham, was both bright and good.
The Challenge Clase for cut blooms was won by Mr. Garuer; this being the thind time he has won tho Cup, It now becomes his property. Very Ine blooms were noticed in both sections, the best of the Japanese were those of Fairy Wonder, Madame Therese Res, Mr. W. H. Lees. Of incurved, Wonder, Madame Thérese Rer, Mr. W. H. Loes. Of incurved,
Empress of In lia, Miss Haggas and Princess of Wales. Empress of India, Miss Haggas and Princess of Wales.
Mr. Fry, gr. to Sir W. Rose, Moor Park, Farnham, was a capital 2nd. In another class, also twonty-four Japanese and twelve incurved, these same two exhibitors occupieci similar positions.
The best aix blooms of one variety of Japaneme were those of Viviaud Morel, shown by Messrs. Doriay \& Son: Mr, Osmax, Ottershaw Park, Chertsey, having six good blooms of Jeanne d'Are in the Incurved class.
The best Grapes were of Blacks, Alicante, shown by Mr Mortimer; and of Whiten, Muscats, by Mr. Osman. The best vegetables in two clasacs came from Mr. Powney, gr. to Colonel Fitzrov, Hale Place, Faraham, twelve
varieties in each case being required. The best if dithos varieties in each case being required. The best fix dishes of dessert Apples wereshown by Mr. Prewell, gr. to T. J. WoonRorye, Kiaq., Fransham; and the best nix culinary by Mr. Turner, gr. to R. H. Conmas, Eaq, both exhibito being good.

\section*{LIVERPOOL.}

November 12, 13.-The autumn exhibition of this Society was held in the St. George's Hall, and was very satisfactory. The quality of the cut blooms of Chrysanthemums was better than has been the case during the last few years. Fruit, usually good at Liverpool, was excellent. The arrangements were very good under the direction of Mr. Dickson, the Secretary. Cut blooms receive most encouragement, and they were staged in large quantity.
The principal prize was that for forty-eight blooms, to be composed equally of incurved and Japanese varietien. There were meven competitons: the lit prize being somewhat easily won by Mr. J. Jellicoe, gr. to F. Gossaoe, Eaq., Camp Hill, Woolton, with blooms possessing much mealt.
The incurved wero particularly fine and well staged, and includad Lord Alcester, Emily Dale, Queen of England, Beauty, Princen of Wales, and Lucy Kendall. Mr. G. Eaton, RT. to W. H. Surresy, Eeq., Allerton House, Was 2nd.
For eighteen Incurved blorman, Mr. J. Henton, gr. to R. P. Hoviton, Esq., M.P., Nursery Roed, Aigburth, won with excellent blooms, including leading varieties. Japanose blooms in eighteen varietles were dintinctly merituriuus, 80 well were they ataged. Mr. J. Heatom agrain won the pre.

William, gr. to J. Procroz, Enq., was ind. Mr. C. Sherlock, gr. to E. Edmompeon, Eeq., Woodlands, A igburth, won the premier ponition for tweive Japanese in a brisk competition. Anemoneflowerod varietien were bent mown by Mr. G. Eiton, in the clana for uix blooms, the centre, or diec, being thoroughly well doveloped. A like remark applios to the retered variotion, aleo ataged by Mr. Eatom.
The class for exbibitort who hare not prevlounly wod a price at thin ahow was an extromely grod one. Mr. J. lucurved, and the same mamber of Japarisese interas.
Japane blooma ataged with long stems for effoct wero well shown by Mr. B. Cromwoll, gr, to F. Butrom Timmia, Enq., Cleveloy, Allorton, who was let. He had guod bluoman diuglayed on an oxtru eired alo ing thand.

\section*{Planta}

Planta wore contributed in large numbern. For three trulnod specimens, Mr. T. Goman, gr. to J. A. Bants.ert, Erq., Lyyton. Momiloy Rili, Liverpool, wan lat with plant Prooly flowered and not two etifly trufnod. For one untrained
 lace, Boltonmoor, won.
The bont group of Chrysamthemunan was from Mr. J liracegirdle, gr. to W. H. Watcm, Emq., Elm Hall, Wavertree The plante were dwarf and carried good bloom, sor were they too closely packed.

Orchids made a plessing display.
Froit, ace
Fruit formed a remarkable feature. For alx dishen Mr Crowwell wecured the promier award with capital Grapes, Muscat of Alexandria and \(\Delta\) licante, Marie Lonise Pears, Molon, and a dith of Ribston Pipple Applen. Mr, R Hrnagan, gr. to T. Comern, Eeq., Saighton, Cbouter, won for six dishes of Peare, and for a like number of Applen. Mr. J. Davien, gr, to W. E. Kive Kivo, Esq., Bodenham Manor, Leominster, was an eany Ist with besutifully-coloured examples. Exhibtt of Grapes were numerous and good. For four bunches, dintinct, Mr T. Elsworthy, gr. to A. R. Giadsionk, Eeq., Court Hey
 Alicante, Alnwick Soedling, Golden Queen, and Muncut Alexandria
Mearr. P. P. Kerr a soms ataged a remarkably fine lot Orchias in variety

\section*{THE WEST OF ENGLAND CERYSAN THEMOM}

November 12, 13. - The annual exhibition of the above Society took place on Tuesilay and Wednesday, at the Plymouth Guildhall, and in every way the show was a great success. This year, by a better system of gronping and arrangement, the whole of the exhibits are placed in the hall, and the result has been a finer effect, and it gave much greater pleasure in viewing the show as a whole.

\section*{Cut Breons.}

The entrien in the majority of the classen were numerona. and as a consequence the competition wan very keen, By, murch mo that in several instances it was but hy a matter of a fes points only that the winners secured their coveted positions. In the class for Horticultural socioties within the four counties of Deron, Somerset, Dorset and Comwall, the class being for thirty six heoms, to consist of twenty fons Japanese and twelve incurved, the Teigmmouth Horticul. tural Socety was awarded 1st, the 2nd falling to that from Newton-Abbot. The clans for forty-efght Japaneas, not fewer than twenty-four varieties, was a very atrong one, the flowers all through being exceptionally fine. The premie position was ultimately awarded to J. B. Fortzacue, Eeq. Boconnor, Cornwall (kr.. Mr. (. Page). Here we noticed
Mrs. J. Denne, G. C. Schwabe, E.. Molyneux, Vicletta, and Col. Cbase amonggt the hest. H. Hammomd Spericer, Esq. Teignmonth (gr., Mr. G. Foster), was 2nd, Laving, amongst others, Midame Carnot, Mrs. \(\because\). M. layne, and Hickar Dean, very fine. W. Herbert Fowler, Tauntion (gro, Mr. G Hawkins) was third; his sliver King, Viscounteas Hamble don, I.. E. Saunders were especially fine in a very goo display
For twenty-four incurved blooms, H. Haxmord Spencer was 1st, C. G. Pridelex Brune, 2ad. The facurved bloom were mostly neat, pretty flowers; but every seaecu, classe for those seem to suffer in sire, through the greatar wive of the loading Japanene flowern.
For aix Japanose white, W. Haberat Fownea, was well lut with grand bloonis of Medame Ad. Cbaton ; and R. HanMown Spencke 2nd with Madame Carnot.
For ifx Japanese, any colour but white, J. B. Fontencue, Esoq., wan lat with M. Panckoucke ; and Mise Faipp, 2nd With Duchess of Wellington.
Twelve Japaneee, T. Wrikivsor was 1et, beating numerous competitors ; and W. H. Veale, 2nd
The clas for twonty-four blooms Japanese and incurve was well Alled, but the immense size of the former kinds, placed in close proximity to the smaller incurved varietles, momewhat detracts from the interest of this class. Sir Jancs Jenerks, Mannamead, wae let, whilst G. Hawres, and H. Endicott, gr.
2nd and 3 rd .
Several classes of cut hlooms were set apart for amsteurs

CHEER and other
warde falling to J. Newton, F. M. Bardson and Georan Hoskin.
G. Foster was awarded 1st in a special class where the prizes were offered by Mr. W. J. Godfrey, of varieties sen out in England during 18

\section*{Groups}

A number of these were arranged round the Hall, and in the principal class fillin' a space of 100 square feet, Mr. C. Warts, Plymouth, was 1st, with a fine display, the quality gond, and arrangement and general effect rnost pleasing some Crotons, Bamboos, Eulalias and Ferns were used with discrimination and advantage. Mr. Chelwill deserved praise for his arrangement; and W. B. Greenslade, gr. to A. Gronv bridee, was placed 2nd.
Other groups confined to residents within 15 miles and Mr.W. B. Gremnslade, 2nd. Primulas were shown by Dr. Square, who was 1st, and Sir Jampe Jenkins, 2nd whilst for some doubie Primulas,

\section*{Misceltaneous}

Some nice Orchids were shown, including fine varieties of Cattleys labiata, Cymbidiums, Cypripedinms, Dendrobium Phalænopsis, \&c., the lst prize falling to Dr. Aldous, Mannamead; 2nd to F. H. Hodoes
Some fine collections of Apples and Pears were staged by Miss Fripp, 1st; and Mr. F. Bradshaw. 2nd. Grape were only represented in one class, Mr. G. Chambe
Ivrbridge, 1st; Mr. C. Norrington, Abbotsfield, 3rd.
Prizes for vegetables were offered by Mr. W. J. Gonfrey and Jarman \& Co., Chard, the 1st prize in both classes being secured by Mr. F. Bradshaw; Mr. G. Watts being success ful with Mr. Lethbridge prize, and Lady Walfer securing that offered by Messrs. Sutton \& Co., Reading. Messrs. A. T. Westlake, Plymouth, J. Lethbridge, W. Thom, Sout View Nurseries, Compton, Messrs. Jarman \& Co., Chard, and Messrs. Veitch \& Son, Exeter, staged groups not for compe tition, the latter having many choice Orchids, amongst them being a number of plants of Cypripedium Charlesworthii, and good forms of Cattleya labiata. Mr. W. J. Godfrey had a fine stand of new and choice Chrysanthemums, as well also as a pretty disp'ay of Camations, including the new ones recently sent out by him.

\section*{DEVON AND EXETER GARDENERS' ASSOCLATION.}

November 13.-At the meeting held on Wednesday, presided over by Mr. P. C. M. Veitch, and well attended by the members of the associa tion, the Rev. Dr. Dangar (Principal of the Diocesan Training College at Exeter), gave a lecture on "Carnations," and their propagation and cultivation.
In the course of his remarks he said, with regard to the mode of propagation, three methods at onre presented themselves -(1) by seeds, (2) by cuttings, (3) by layers. As to raising from seed, this at once ruised the question as to what seed one meant to sow. In England it wats difficult to raise seed at all from double flowers. In some few especially favourable seasons this could be done, but the large growers on the Continent had the best chance by reason of their long sum mers. To attempt to raise Caraation seed under glass generally ended in failure. They needed out-of-door treatment. But given the seed, they shonld sow in a conl frame early in feb-
ruary in a box containing crocks in the bottom, a layer of well-rotted turf, and on the top a compost of loam, seasand, and dung finely sifted. One should sow in rows, water after sowing, and place in a cool frame, quite at the top and near the glass. Much sun-warmth was required, and plentry of air. His plan described above gave both. The moment that weeds appeared they should be pulled up. In May, or early in June, the plants would be quite large enough to handle, and to be potted into 3 or 4 -mnch pots, and placed back in the same frame. There they should remain until the pots were nearly, but not quite, full of roots. It was best to plunge the pots in ashes-(a) to draw the warmth and (b) to keep out worms, slugs, \&cc. In September, or possibly earlier, but in a rainy time, plant out, and in the following July the plants would bloom. hey could not force nature; if they sowed the seed in autumn, as soon as it was ripe the plants would come up, but they will not, as a rule, get a flower worth looking at until the following July year. Some people said it was a mistake to increase Carnations by cuttings. That was not his experience. He took his cuttings at the end of the first week of summer rain, so as to get some growth in the grass. If potted singly in four-inch pots, with the same compost as had been detailed above, and if well pressed down into the soil, a very large percent age would strike. They should be placed in a cool frame, previovsly well lime-washed, and rendered free from insects, and the suttings whould be kept just damp. Most of them would strike in two or three months, but some might remain dormant until the was the Layering, known to all Carnation growers, was the one ustally edopted, but the lecturer said he very light land, wherethactory as cuttings, eapecially in very light land, where the damp was so apt to run ont of the eurface soil, nor in land infented by slugs or other depredators. They wore an fond of the soft tissues of Carnations. As to planting out, toto blooming quarters.
growers would have noticed how constantly it happened that beds of Carnations on the flat, where over-much water was provided on a clay soil, did badly, whereas those on a bank did well. In a very hard winter whole beds on a slope had escaped when those on the level had perished. A beautifnl flowers.

\section*{CARDIFF CHRYSANTHEMOM}

November 13, 14. -The ninth exhibition of this ociety was held on the above dates in the Park Hall, Cardiff. The show of Chrysanthemum blooms was more than usually good, particularly the Japanese varieties, and the competition in many of the classes was very keen. The groups were excel ent, and devices, bouquets, \&c., of the florists' art, remarkably tasteful; making, as is always the case at Cardiff, a fine feature of the exhibition.
Messirs. Peelpg \& Co. and Case Brothers, both of Cardiff, had fine large displays in this way, and were suitably awarded a silver Medal. Mr. W. J. Gopfrfy Exmouth, and Messirs. Clibran \& Sor, Altrincham, each exhibited several stands of cut blooms of Chrysanthemums, many of them being extra good novelties, Aron special award; as also Messrs. Clibravis Lord Lisburne, a good Japanese of terra-cotta colour, and Messrs. CuTbusm and Sons' Mrs. Blick. In the fruit clasbes Apples were well hown. Mr. J Watking and Messrs, Cranston had colle tions similar to those shown by them at Hereford last week Amongst Mr. Watkins' dishes a new kitchen or desse variety, nemed: Lady Emily, Was conspicuous. It is of heavy cropper. He also had Byford Wonder in splendid cundition.

For Twenty-four Japanese distinct.-1st, Mr. G. W. Drak F Catharp-terrace, Caidiff, with grand blooms of Madame Car not, Mrs. H. Payne, W. G. Lincoln, Robert Owen, Madame A. Molin, \&c. 2nd., R. A. Bowring, Esq. (gr., Mr. H. A.Joy), whose best blooms were, Madame Carnot, Etoile de Lyon, Chas. Davis, Viscountess Hambledon, and Lnrd Brooke
Tisenty-four Incurved Varieties, distinet.-1st., Earl of Lisburne, Cross Wood Park (gr., Mr. Williams), with wellfinished blooms of Prince Alfred, Miss M. A. Haggas, John Lambard, Mrs. Robinson King, Princess of Wales, \&c. 2nd., Sir C. E. G. Phillips, Picton Castle (gr , Mr. Dumble), with good blooms of favourite varieties.
Troelve Jananesevarieties, distinct.-1.st, I. C.HANBITRY, Esq., of Edwin Molyneux, Mrs, H. Payne, J. \& Dibbens, Yiviand Morel, Chas Davis, Etoile de Lyon, sec.; 2nd, R. A. Bowrinn, Esq., with Lord Brooke, Duke of York, Duchess of York, Madame Carnot, Mdlle. T. Rey, de
Thwelve Incurved vicrieties, distinct.-1st, J. Masters, Esq., Ianelly (gr., Mr. J. Howe), with good Princess of Wales, Golden Empress, Mra. J. Gardener, Miss M. A. Haggas, Licy Kendall, \&c.; 2nd, Bir C. E. G. Prrllipy, with Baron Hirsch, dec.
Tioenty-jour distinct hlooms, for which a Challenge Cup, value £5 5s. was offeren, to be won twice before it comes the property of the exhibitor. A similar cup was won last year by Sir C. E.S. Prillips. 1st, R. W. D. Harley, Fsq, Hereford (gr., Mr. Robinson), with grand blooms of Madame Carnet, Viviand Morel, Niveum, Duke of York, E. Molynenx, Mons, Panckoucke, Miss D. Shed, Mrs. H. Payne, Mons. C. Molin Empress of India, Golden Empress, Lord Alcester, and Queen of England. Madame Carnot in this stanci wa selected as the best bloom in the show, and was fwarded the N. C. S. certificate : 2nd., Sir C. E. G. P
The N.U.S. certificate offered for the best Chrysanthemum plant in the show, was won by R. Dean, Esq., Newport, with a well cultivated, and profusely-flowered plant of Loni

\section*{LEWES CERYSANTEEMUM.}

November 13, 14.-Both the Town Hall and Corn Exchange were filled with good exhibits : but the cut flowers and miscellaneous groups formed the features of most interest. Groups of Chrys anthemums were generally not good.
The group covering a space of 60 square feet placed Mr. C Fennell, gr. to Mrs. Thorne, The Grange, Lewen, 1st. It
was a closely-arranged lot. The mixture of Ferns, Btove and was a closely-arranged lot. The mixture of Ferns, stuve and
greenhonse plants, was well done, Mr. J. Adams, gr. to the Mev. Sir G. Smifyifr, Coombe Place, Lewes, was 2nd.
Cut flowers caused strong competition, and in the class for 24 Japanese, Mr. J. Harwuod was 1st, and Mr. A. Slaughter, 2nd, in a very strong class. Mr. J. Heasman, gr. to Mrs. OxLey, Turner's Hill, was a gond lst for 24 incurved varieties, and Mr. C. Sayers, gr. to the Misses Cnoz, Nutley, was let for 12 of these varieties. Mr. A. Slacghter, Jarvis Villa, Steynhas, put up a grand lot in a class for 12 Japanese, and Mr. J. Coles, gr. to H. F. Walker, Eeq., Balcombe, beat him for 6 Japanese distinct. The competition in theee beat clanses was strong. Mr. J. Heassax, was 1st for 6 incurveds distinct ; and Mr. J. Hopkins, gr. to Mrs. Thoraton, Framifild, a good lot with grand blooms of Empress of India, in a class for six of one var. In astrongamateur

\section*{HULL CHRYSANTEEMUM.}

November 13, 14. - Many fine exhibitions have keen held in the Artillery Barracks under have auspices of the Hull Chrysanthemum Societr, but never has there been one of better quality thronghout than this one. Messrs. Harland \& Dixon are to be congratulated upon their success. Cut blooms though perhaps slightly less numerons than on some previous occasions, were better in quality than ever
In the class for twenty-four incurved blooms thero masa Erisk competition, and Mr. W. H. Lees, gr. to F. A. Bran lot of medium sized splendidly staged blooms. M. J. P Leadletter, gr. to A. Wicson, Esq., Tranby Croft, Hell, me 2nd. For twelve incurved, similar positions were taken by these two exhibitors
twenty-four blooms were mach the stronger. In that for hloom of \(M\). Pancknucke was awarded the premier poition in the show as the best Japanese bloom. Messes Pfarson and Sons, Chilwell, Notts, exhibited well, and were 2 nd. In the class for twelve blooms, Mr. H. Thompson, gr. to C. J. Risgrosf, Esq., Cottingham Grange, Huil, was 1st with a good collection. For thirty-six blooms in twelve varieties, to be shown in vases, three in each, 1 Hr. Leadbetter made acreditable display, and waslst anemoneflowered varieties were eqpecially well shown by Mr. . . Masun, gr. to A. Sxith, E sq., Woodleigh, Hessle. Mr. R Wilker, gr. to Col. Clitherow, Hotham Hall, Brough, had extremely fine specimens of reflexed varieties in his first prize stand of twelve blooms; Mr. Walker also presented the hest Pompon blooms. Mr. Wells, Eallswood Nurseries, had a remarkably fine stand of single-flowered varieties. Ams. teurs staged very commend \(\begin{aligned} \text { ble stands of blooms in classes }\end{aligned}\) set apart for them.

Sperimen plants formed a prominent feature of the show. Vast improvement was shown in this section For three trained plants, any varieties, Mr. J. Clark, gr. to A. Maypifld, Esq., Beverley Road, Newland, Hull
was list with freely fowered and not too formally trained specimens. Mr. F. Pops, Butcher Row, Beverles, had six really meriturious examples of bush-grown plants in the class for that section. "Cut-back" plants recelve con side able encouragement here; fo: six of these Mr. G. Coates, gr. to W. Wheati, Ey, Essq., Anlaby Road, Hull, \(1 \Delta t\), the plants being but a little over 3 feet high and carms ing good blooms.

\section*{Groups and Table Decorations}

Chrysanthemums interspersed with folieg flants are exhibiled splendidly at Hull. A Challenge ia value tw enty guineas being annually offered in this clas Mr. Con tes was success ful on this oceasion for the thind \(t\) and the vase now becomes his property. Five extreme yow groups were entered. Nit only it the arrangemen praivoworthy in these groups, but the plants ew ployed are of the highest quititity, \(p\) oducing a splemen did effect, arranged as they are aronnd the sides of entral building. Miscellaneons plants arranged for elea adled much to the interest of the show. Mr. G. Whaon, Sir J. Ruckur, 13 att, Swanland Lanor, Brough, ecured the one of the mist
Table decoration under artificial light adds to the interent f the show, open as the competition is to ladies only.
Upon this occasion Mrs. F. Topiam, Hotham Hall, Brougd, wis the most successful exhibitor, Mra. T. FAWLEY Jodek Helmsley, Cottingham, following, both having tastentily Helmsleg, Cotti

\section*{BOURNEMOUTE AND DISTRICI CHRYSANTHEMUM AND HORI CULTURAL}

Covemper 13, 14.- This admirably managed society held its annual exhibition of plants, blooms, fruits, vegetables, \&c., in the Winter Gue dens attached to the Hotel Mont Dore, Bounb mouth, on the above-mentioned dates, and m by the pronounced as one of the hest hitherto held by society, a fact which redounds to the reditary (ir excellent committce and energetic secretary with James Spong) and every one connected with show

\section*{Cut Blooms.}

The class for 36 cut-blooms, one-half Japanese and the others incurved, and not more than two of any one numbin was well won by Mr. N. Molynenx, gr. to Hants \({ }^{\text {and }}\) Wordfort, gr. to Major Blount, and Mr. Prosser, 8 . J. Miles, Esa., The Knolle, Wimborne, 2nd and abidg Mr. Grace (gr. to W. R. Neave, Eaf., F rarieties, ing, among others, very fine blnoms of Ceren 10 in President Borel, and Madane Carnot. ataged in this class Mr. Molynerx led in then ponding class for a like number of incurved bloom, Gach very fine specinens of popular varietion

Mr. Boote, gr, to F. Ricusion bloms.
of Japanese 'grand exarnples of Viviand Morel) as mell as the best \(\bar{n}\) bloums of incurvel (Hero of Stoke Newington). M Grace coming in 2nd in each class with Viviand Morel and Robert Petfield in fine form. Mr. Boore was also lst out o six stands stared for 10 Japanese. distinct, to which stand Paris, Mons. H. Payne, Etoile de Lfon, and Viviand Morel heing the must prominent hloums in this stand.
Grorps, covering an area of 100 square fect in the open nod 50 square feet in the amateur classes, were remarkably good. The plants were well-grown dwarf, cluthed with large, rich-inoking follage from the pots upwards, and surmonnted with large, fresh, fine homms. In the open class, foliage plants were allowed in the arrangement, Mensers. G. Fatrs \& Sons, Palace Nurseries, Bournemouth, were ac corded premier position: Mr. Inizam, Parkston Nurseries, lose to each other in point of merit.
Mr. W. Stretch put up a grand group in ommpatition for the Challenge Cup ; Br. G. Eldridge, gr. to G. W. Youno, Eaq,
Was a gond 2nd.
Graprs, Mr. J. Mrazies, South Lytchetts, Pool, had the
hest 3 bunches of Grapes in the open classes in Gros Colmar, hest 3 bunches of Grapes in the open classes in Gros Colmar,
fine in bunch, berry, and colour; and Mr. Mitchell, gr. to B. W. Flemisc, Esq., Chilworth Manor, Romsey, was 2nd,
with Black Alicante. Mr. James Chalk, gr. to Gpo. Read, Esan., Westwood, Salishury, had the best 3 bunches of white Grapes, showing Museat of Alexandria good in every reapect ; and Mr. Mitchfll was second. Mr. Menzifs was a successful exhibitor in the minor classes for Grapes,
Apples and Pears made a good show. Mr. Osbome, gr, to Rev. H. Mopkini, tonis 1st for threo dishes dessert Apples, and Mr. Masles, gr. to Miss Evans, was 1st for a like number of dishes of culinary varieties, the former staging excel-
lent fruits. Pears were creditably shown by Mr. Menzres and others. Vegetables were shown in great quantities, and in fine condition

\section*{TUNBRIDGE WELLS, MID-KENT, AND} EAST SUSSEX OERYSANTHEMUM.
November 13, 14.-A pretty thow was arranged in the Corn Exchange and Assembly Roome. Groupe of Chryanthemums and others of mixed plant were very good, but epecimen plants were poor. Nor were the Solanums and Poinsettian so good as nand. Taken collectively, there was conaiderable falling-off in the cut-flower clases, nome of these, inclading that for twenty-four incarved blooms, not obtaining one competitor
A Silver Cup for eight plants in pots, not to exceed 12 inches in diameter, was secured by Mr. J. Smooker, gr. to Mrs. Halt, Broadwater Down. A second Silver Cap for a group 12 feet by 8 feet, occasioned considerable competition, and the winner. had plants carrying really fine blooms. This group was more formal than that from Mr. J. SMOOKER, who was 2nd, but the flowers were better,
A group of miscellaneous planta from Mr. Berwick, gr. to J. Godden, Esq., Tunbridge Wells, was prettily arranged; but that from Mr. L. Dupond, gr. to C. B. Powell, Eeq. Southborough, was even more tssteful in arrangement, yet lacking in colour. For six dwarf-trained plants, Mr. J.
SMoorer was well in front, also for single specimens of incurved and Japanese.

Cut Blooms.
Nine compated in a class for twelve Japanese cut blooms, Mr. J. Howes, gr. to W. Cobs, Esq., Broad water Down,
being list with some grand blooms, although closely fol lowed by others that gained no award. The exhibits in thi class were to be arranged on a table 4 feet by 2 feet, with Ferns and other foliage for effect. The result was a very pretty lot, but we could not agree with the judges in their 2nd behind that blooms
ehind that in others
Twelve incurved blooms were shown in good form be Me. J. Lrag. gr. to Rev. E. H. Boardman, Groombridge, who wa followed by Mr. C. Harris, gr, to O. A. Smity, Esqo, Hammer wood, Elast Grinstead; Mr. J. Svow, The Gardens, Wadhurst, being lst for six varieties.
Mr. Harris was litt for twenty-four Japanese, closely followed by Mr. J. W. Moss, gr. to Mrs. Robingon, Matfield.
For twelve Japanese, Mr. E. Dove, Kr, to J. W. HaRDcastle, Esq.o, Hill Court, Edenbridge, won; Mr. Harris again coming in front for sir blooms; and Mr. J. Swow for mix of any one variety, with Mrs. H. Payne.

\section*{Miscellaneous Classes.}

For six benried plants, Mr, G. Tickwer won with a wellgrown lot of Solannms; and Mr. W. AUstiv was in front for six Poinsettias.
A class for six Orchids brought out some good pieces from Mr. C. Earl. gr. to Sir J. Goldsmid, Tonbridge; and Mr. J. Howea, gr. to W. Cobs, Keq., Broxd water Down.

Fruit was bright and sound, but not numerous. Mr. F. Bridger, gr. to Lord DF LisLe. Penshurst, was almost inviacible in these classes, taking premier honours for siz dishes of dessert Pears, and for three dishes of the same : for six dimhes of doseart Apples, for one dish, and for mir dishes of cooking Apples. Mr. Lege was lst for three dishes of dessert Apples; but Mr. Bridaer again came to the front for three dishes of kitchen Pears, and also for a aimilar quantity of cooking Apples.

Wegetab'es were very gool, the lst prize for a collection
open to members only, going to Mr. W. H. Wickens, ET. to Wherlwriat, Eeq., Nevill Park. who just beat ist. Standen.
Mr. J. Charlton put up a grand collection of vegetableo and horticultural sundries not for competition and a good lo of fruit came from Mr. A. Wileon, gr, to the Marquis of Aber giafenny, Eridge Castle.

\section*{BRISTOL CHRYSANTHEMUM}

November 13, 14.-The above bow wat a great naccess in every way. Exhibita were good and namerons, competition being in most cases keen Cut flower and specimen plants, IIkewise groups were well done. The show wat varied by the introduction of clanes for miacellaneous plants and \&lowers. Great intereat was taken in the compatition for the Cballenge Vave, value 12 gaineas, \(£ 5\) beiog sided to the 1st priza. This wai well won by Captain Marling (gr., Mr. McDonald), who wea alao saccessfal in other classes.
Fruit was well shown aloo, the various clacsen being well filled; the Grapes, although not sensational, were of good uality; likewise the Apples and Pears.
The vegetable competition being strong, for the special prizee offered by Messrs. SuTTOM \& Sows, drew a strong competition of first-pate quality; as did also those offered by the society, Mesurn. Brown \& Son, Mesors. W. Garraway a Co., and others.

\section*{LICHEIELD CERYSANTEEMUM}

November 13 14.-The second exbibition was held on the above date in the St. James's Hall. The Mayor, T. Ashmall, Evq, informed the large audience that Lichfield had held Hower ahows without a break for eaventy auccesaive yeart. Judging from the pre ment diaplay the exhibition should become a popular one.
The beat group of Chrysanthemums (open) whs ons from General Drotr. Yreeford Hall (Kr., Mr. Dix), who showod well grown plants of Viviand Morel, W. seward, Mra. E. Payne Beauty of Exmouth, and others. 2nd, W. F. Gordon, Eeq. Plants of Japanese varieties, distinct, were best from Cbarles Foster, Bart., Longdon; 2nd, Genemal Dyoty
Plants of Chrysanthemuma anitable for table decoration were good from Mr. A. O. Worthingitis; and a group of misceltaining nice specimens of Cuttleya sed Dendrobium, with taining nice specimens of Cattleyas and Dendrobium
Palmas, Crotons, \&c., was deserving of commendation.
The best twelve cut blooms of Japanese Chryennthemum The best twelve cut blooms of Japanese Chryannthemums were from General DyoxT:
Of Fruit, there was a large dieplay fo the class for two bunches of Black Grapes. Mr. Josepi Harvex wan 1st
Apples, in three dishes, desert varieties, were good from General Dyott. Mr. C. H. Inge won for three dishes of kitchen Apples.
Genesal Dyott was lat for a collection of vegetables in ight dishes.
Amongst the non-competitive exhibits, Mesars. Rivrrs \& Sons, sawbridge worth, had fine collections of Apples and Peara.

\section*{EDINBURGE BOTANIOAL}

November 14.-The first meeting of the sixtieth sestion of this Suciety was held at 5. S. Andrew Square, on the evening of Thardar, Profeamor F. C. Bower in the chair. Owing to the unfavourable weather prevailing the atteadance was mall. After the election of office-bearers for the seasion, which were balloted for and elected ananimously at proposed by the Council, the pablic business was proceeded with.
The principal item on the list was the address by the retiring President, Prolessor F. C. Bower, F.B.B.. who gave a paper on the life and work of Robert Brown; and in a very interesting coanner pointed ont the important work and principal traits in this great botanist's life, from his earliest efforts. The death of Professor Babington, who was one of the early momberg of this Society, was noticed with sympsthetic regret, and Profeseor Bower was asked to furnish an obituary notice of this old and celebratel botanist, for the Societv's Trazsactions In the abeence of the writer, Dr. David Paul, a communication on "Fangi observed in Glen Urquhart, Iaverness-bhire," whe read by the Assistant-Secretary, Mr. J. Terras, B. Sc.c, which, from the list given, seemed to be happy huntingground for these forms of plant-life. The Aesistant-Secnetary ground read the Report of Veretation made in the Royal Botaric Ganden by the Curator, Mr. B. Lindsay, for the past three Garden by the Curator, Mr. B, Lindsay, for the put thave months. During October, it was found that plants in fower were much injured by fronts, the fotlowing having Caring the month come into bloom in the rock-garden, viz, Campanala garganica, Morina longiflors, Btachys densiflora, Verbsecum Chaixiii, H

In the metoorological observations recorded at the Royal Botanic Gardon during October, the following few items from Mr. A. D. Richardson's report wore noted. The mean of barometer readings reduced to \(32^{\circ}\), and takea at 9 A.M., whe 29.708 inches, or the name as the average for five previous years. The higheat reading of the protected maximum thermometer

Wha \(62^{\circ} \cdot 8\), on the let; minimum, \(28^{\circ \circ} 2\), on the 20 th. Front occurred on sir dayy. Hykrometer in screen: Mean of drybulb, \(44^{\circ} 1\) : wet-bulb, \(41^{\circ} \mathrm{B}\); dem point, \(38^{\circ} \cdot 6\). Redintioa thermometer : Maximum in sun, \(107^{\circ} 7\), on the 12 th ; minimum on grase, \(14^{\circ} \cdot 9\), on the 28 th . Frost occarred on gram on eighteen daye. Rain, \&c., fell on seventeen dayo. Total fall, 3.230 inches. Greatest fall in twenty-four houm. 0.820 inches on the lat. A few plants and epecimens from the housen of the Botanio Garden wero exhibited, facludive Melamtome malubathrica. Vitio heterophylle humulifolin, Vanda Kimmallianna, and others; and notes upon plante of interent therein, were read by Mr. R. L. Harrow. Theonew Ireeident for the gension, Dr. A. Aitken, M.A., D.Sc., Ec., occupie1 the chair during part of the evening.

\section*{EALING HORTICULTURAL.}

Nowmern 14 -The eighteenth annal exhibition of Chrysanthemums, \&ce, took place in the Victoria Hall on the above date, bringing tozether a atiffactory diuplay, both of plants and cat flowers.
The 1at prize and Silver Mefol of the National Chryannthomum Society for a gronp, arranged tor effect, wse well won by Mr. C. Long. RP. to E. P. OA кsibotr Ema., Orchard Dene. who way alno placel int for three sperymens (incurved, Tapanene, or reflexed), with finely-flowered plante of Jobn Shrimpton, and E. Beckett. A gooil 2 ad was Mr. C. Edwands, gr. to W. Owem, Enq. The Elms, In three Pompoan, Mr. Love was again well to the front, with Sueur Mélanie. Mr. Westhke, and Antonius, closely followed by Mr. C. EDWARDB.

\section*{Cut Blooms.}

Twelve incurved: a grand lot of flowers of well-known varieties gained the premier position to Mr. C. EDwamds, whilst scarcely inferior were the blooms ntaged by Mr. C. Love. Six iscurved. Ist Mr. H. Knigbtley, kr. to - Robimson, Esq., Sonthall; Lord Wolseley and Mies M. A. Hagman, amongat othare, were here shown well.
Mr. C. Edwards was lat for twelve Japanese varietien, very good boing thoee of C. H. Payne. Beauty of Cattewood, and Silver King.
Nise Japanese.- fine lot of floweragained Mr. C. Edwarda the lot prize, noteworthy being Mudame Carnot, Philadelphia, and Lord Brooke.
Sin Japanese. - The leading prizes here were won with ine hooms by Mesira. Long and Edifards, who maintained the ame positions in the class for three Japanese.
Twelve bunches, Pompons. -This was a pretty clann, Mr, C Finwards being placed 1st; and Mr. C. Lonea and.
In Pompons, some fine flowers were contributed by Mr. W
Roberts, gr. to J. HARRIS. Fers. Roberta, gro to J. HaRris, Eary.o Braemar, noteworthy beive Prince of Orapge, W. Westlake, and Ecour Mélanie.
The two Modals for premier blooms (Japanese and incurvel) were a warded to Mr. C. KDWARDS, who otaged in the former a fine flower of Lord Brooke, and in the latter a well finiahed bloom of Lady Dorothy.

\section*{WINOEESTER.}

November 14, 15-An excellent ahow was held in the Guildhall on the above dates, of which cut bloom formed the more important part.
The winner of the 1st prize in the highent clase both for Yorty-eight Japanew and incurveds, in eightoen varietiee. Wan Mr. Neville, gr. at Twyord, Winchenter. His blooms were of middle aize, and neatly ataged. Mr. J. Agate was 2nd.
Mr. J. Bowerman, gr. to C. Hoskie. Eiq., Hackwood Park, Basingntoke, was the winner in the twenty-four cut bloom class, Japanese, with a vory eren at and; and Mr. G. Best. gr. to F. D. Leriand, Eeq., The Vine, Besingstoke, was Ite for twelve Japanese, distinct. M-. N. Molyneux. gr. to I Garmier, Roq.o Rookesbury Park, Fareham, wurceeded gaining the lat prize for twelvo incurved, with mediumerized. neatly.finished examples.
Single flowered and Pompon varieties were best shown by Mr. Abate. For the former he received a Cartifioate of Merit, and for the latter he won premier place
Plants.--Specimen plants were best staged by Messrm. H. * J. VANE, who were lat in all the classes. The best group of Chrysanthemums was a good one from Mr. G. H. Street. gr. 10 Dr. FEARON, The College, Winchegter. Mr. Klan, gr, to W. A. Gillett, Req., Fair Oak Lojge, Biehopatoke, afranged a nice group of miscellan.ous plants.
Mears. Hillifr \& Son. Winchester, had a meritorious collection of Apples and shrubs; Measrs, Jeprares, miscelLaneous phants; Mr. B. Ladiame, Shifley, wreaths, bouquetr, ace. By far the finest exhibit, not for competition, was that from Mr. E. Molyneux, Gr. to W. H. MYкks, Eeq.o, Swammore Park, Bishop's Waltham, who staged wereral dozen cut blooms Japanese and incurred, along with two dorien bunches of singie and Pompon-flowered varieties in vasen.

\section*{WIMBLEDON AND DISTRIOT HORTICULTURAL.}

Novmbrer 14, 15.-This exhibition took place on the above dates, and there was good competition in mont of the classes. A praiseworthy festare was made by the group of plant in flower. In the cat bloom section some of the Japanese flowers were very fine, bat incurved varietiea were not remarkable. A Silver Cup, given by the tradesmen of Wimbledon for a
g. Mynett, gro to J. Cablisle, Eeq., Ashbarton House, Putney Heath, the Japanese flowers in this collection were excellent 4 good 2nd was Mr. A. Newell, gr. to Sir E. Sıunders, In the class for a smaller group, a bright lot of plante ecured 1st position to Mr. F. Kiegl, gr. to R. T. Baynes, Esq, secured 1 st position to Mr. F. Kiegl, gr. to R. T. BAYNes, Esq Glenovarne, who was closely foll Hed by
to G. T. Giles, Esq., Copse Hill House.
to G. T. Giles, Esq., Copse Hill House. only to cottagers who must have grown the plants from cuttings, was remarkably well shown by Mr. C. Hull, Den marl Road. The best specimen large-flowered plant was Den of Colonel W. B. Smith, shown by Mr. W. Thornton, gro to T. E. Crocerer. Esq., Drammont; 2nd, Mr. C. Bentley, gr to Captain Bosworth, Roehampton.
Cut b'ooms.-An important class was that for twenty-four incurved and twenty-four Japanese blooms, and a grand collection from Mr. W. Mease, gr. to A. Tate, Esq., Downside, Leatherhead, gained the 1st prize. Among \(+t\) some of the best Japanese were Madame Hoste, Madame Tnérèss Rey, Silve King, and Golden Gate. Incurved, R. Petfield, Queen
Mr. Mease was well to the front again for twelve Japanese ad twel ve incurved blooms, in the former section the had fine flowera of Etoile de Lyon, Marie Hoste, and Golden Gate Amongat the incurved were Princess of Teck, Hero of Stoke Amongat the ind Golden Empress of India; 2nd, Mr. A. Ratcliff, gr. to J. B. Joresstone, Ksq., Coombe Cottage, Kingston,
Twelve incurved blooms were shown best by Mr. A. Rat CLFF, the blooms of Flora Macdonald, Lord Rosebery and Lucy Kendall were good ; Mr. W.J. Wright, gr. to H. A. Lacy Kendall were good; Mr.
MUFKELL, The Grove, was 2nd. Cismikow, Esqu., Effingham Hall, Dorking, had the beat twelve Japanese, and included amongst others, fine blooms of Mdlle. Marie Hoste, Sunflower and Madame Bicourd. A good even lot of flowers securing 2nd place, was staged by Mr. A. Sleggs, gro to Mrs. Dauw, Copee Hill. The last-named exhibitor had premier place for six incurved; Mr. C. Bentley being 2nd
Mr. A. Alderman had very fine blooms in the class for sit Mr. A. ALD Mr. A. SKEGGS was 2nd.
The best air Japanese of one variety, were of Robait Owen. The best six Japanese of one variety, Were of Robsit Owen,
from Mr. G. Milehım, gr. to A. T. Miller, Eq., Kmlyn from Mr. G. Mileham, gr. ts A. T. Miller, Eyo, Kmlyn House, Leatherhead. 2nd, Mr. A. Skegas, with MdMeMarie Hoste. Mr. W. J. Wright won for air large Anemone-
flowered varieties; the bent were W. W. Astor, Sir W. Rae and Madame Ghys.
The six best reflexed were from Mr. Mrise, and fine flowers were noted of Cloth of Gold, and various coloured Christines. A very pretty clase was that for twelve Pompons, and good flowers of Mdlle. Martha, President, Antonius, Aglais, and others, secured the lat prize to Mr.
closely followed by MEr. C. BExTLET

In the rection for amateurs who do not employ a gardener regularly, some good bloomiz were shown. The leading prizewinner for twelve incurveds here was Mr. G. Walker, jun., Lingfeld Road. Mr. W. G. P. CLabe, Hitchin, won fur six incurveds. The best twelve Japanese were from Mr. W. G. P. Claris; 2ad, Mr. E. H. Douet, Surbiton. Mr. Clarik led
alo for siz Japanese, the best being W. H. Lincoln and Viviand Morel ; 2nd, Mr. J. Brown, south Wimbledon. Six Japanese, of one variety, were well ehown by Messrs. CLabk Japanese, of one variety, were who had Viviand Morel, and won in the order named.
The clases devoted to cottagers brought out some good flowers.
Misce llaneous.-There was a good cumpetition in the clase for Primulas, the principal prizes boing takea by Mr. A. Neweli and Mr. T. P. Macgregor, gro to Dowager Lady EAX, Putney Hill. The best group of miscellaneous plants was from Mr. R. Bradford, gro to W. Hope Hant, Kesq., Adding ton, Wimbledon; 2nd, Mr. T. Chandler, gr. to Rev. Canon Haycarte, The Vicarage. Mr. F. Chandler, gr, to Mrs. Haycarth, The Vicarage. Mr. F. Chandler, gro
Wilsoan, Burfield, won lat for a smaller sized group.
Table plants were shown well, Crotons bsing fiaely coloured. The priacipal prize winners were Mesers. A. Aldermanand W. Mense.

The b est aix Lenied plants (Solanumb), were from Mes.s J. Fresces and J. Law. Banketa of foliago and flowering plants were well represented, the loeding prizes being taken by Mr. W. Thoraton and Mr. T. P. Machregor.
There was a good competition in the vegetable classes, Messrs. C. BemTLET and W. Tzomarrox being the priacipal - inaers.
ruit was well thown. For three dishes deesert Apples, Mr. Will Taylikr, Onboru Murwery, Hampton, took ivt place,
baving, amongst others, some fine King of the Pippias ; 2nd, baving, amongst others, some fine King of the Pippias; 2nd,
Mr. A. ALDERMAN. Mr. TAYLER was an excellent exhibitor Mr. A. Alderman. Mr. Tayler was an excellent exhibitor
of kitchen varietien ; 2nd, Mr. C. Bentuey. Tha principal prizes for Pears were taken by Mesarso W. TAYLER and A. Metelvem.
Non-competitive. -These exhibits were numerous and good. Messers. THomsor \& Sonss, The Nurseries. Wimbledon, sent some charming foral devices in Chrysanthemums, Orehids, aca, also a nice group of flowering and foliage planta. Mr. Alderman, gr. t) G. Hatrield, Req, Morden Hall, sent a very fine collection of Apples and Pears, tastefully arranged amongat cut Chrysanthemums and small decorative fliage plants.
Mr. A. Luft, gr. to J. Y. BCEWANY, Rsq.. J.P., Onlfield, Wimbledon Park, tent a good selection of Apples and Pears. with well-finishel Muscat of Alexandria Grapee. A nicolyarranged group of Cypripediums in flower was contributed by Park. Mradond, gro to W. Hope Halr, Eeq., Wimbledon also clunters of Grapa Reine a good lot of Apples and Pears also clunters of Graps Reine Olga de Wurtemberg, which prosamaged by the Secretary, Mr. W. B. Theramon.

BECCLES AND DISTRICT CHRYSAN THEMOM AND FLORICULTURAL
November 14, 15.-The nixth annual exhibition held in the Town Hall, notwithstanding it clashed with other show in the connty, was satisfactory
The plants in pots wers superior to those shown in former ears, pot orly in the better quality of the blooms, but the years, not only in the better qualisy were furnished with good foliage down to their base. for three plants in pots (Jap znese). Sir R. Beauchamp Langley Park, was 1st; and Alderman Mastirs, Beccles, 2nd. In the classes for plants of incurved, reflexed, and Pompon larieties, Alderman Masters, Mrs. H. Read, and Mrs.W.W Worswick were the principal exhibitors, the prizes being warded in the order named.
Groupz of Chryeanthemums were an attractive feature of he show, Mrs. H. Read taking the lat prize
ine lot ; 2ad, Mr. E. Lawrence, also good.
For cut bloome, Japanese, in twelve varieties, Mr. NewMans For cut blooms, Japanese, in twelve varieties, Good example Yarmouth, was 1st ; 2nd, Alderman Masters. Mre. H. Payne of Viviand Morel, C. Davis, Stanstead White, Mre. H. Payne Mdlle. Théresse
Miss TAyLor, Starston, was let for gir Japanese blooms, howing good specimens of Colonel Smith, Beauty of Exmouth and Princess May. Incusved varieties were shown well by Mr. Sutton, Yarmouth, with Mrs. H. Read and Alderman Masters.

Amateurs, or those rot employing a gardener regularly, also contributed largely towards the success of the show.

\section*{SCOTTISH HORTICULTURAL}

November 14 15, 16. - The ninth annual Chryanthemumahow of the Society was opened in the Waverley Market on Thuraday, the 14 sh inst. It must have been apparent to visitore who have been in the habit of reeing the annual exhibitions that this one was at leastas good as any previous display. The market presented a fall and well-furnished appearance from all siden, and a view from the gallery, owing to the brilliant colour being toned down by the foliage plants and Ferns, as well as by occasional groupp, was distinctly pleasing.
In the large classes for cut blooms, more than the usual numbar of exhibitors competed, and their flowers were of high merit. Plants, although better than in previous years, still lack the dimensions oceasionally seen in some other leading shows.
Fruitalso was indicative that the past season has b'ea favourable to its proper development. Vegetables, which w 3 usually expect good at Edinburgh, were exce!lent, and the
competition in most classes keen. Several of the nursergmen contributed to the display by the exhibition of apecialties in plants, flowers, and other miscellaneous exhibits.
Mr. Campbell, of High Blantyre, arranged a table of Car nations and Ferns, and a circular stand of Crotons, Palme, Heaths, \&c.
Mr. H. Jonks of Ryecroft Nurseries had a table of excellent kinds of Japanese a nd incurved varieties of Chrysanthemums.
A table of highly-coloured Kale, from the original stoslr of the late Miss Eope of Wardie Lodge, Edinburgh, was interesting; while some enormous Marrows and other vegetabies were staged from Mr. J. Ecarlett of Iaveresk; examples of preserves from these being also showa.
There was a table of articles for sale in aid of the Gardeners' Orphan Fund, which we hope was successful.
Messra. DOBbie \& Co, Rothesay, staged a table of Chrysanthemums, including some of the newer varieties.

\section*{Plants}

For six distinct varieties of Chrysanthemums there ware four competitorp. It was the principal clase for pot-plants, servedly 1et, though Mr. J. Holmes, Winton Castle, Pencait land, was a good 2nd.
Pumpons.-In the clase for four trained plants, those from Mr HUNT, Coltbridge, Murrayfield, were very commendible; Mr. J. Holmes again taking gad honours. Mr. D Cavanagh was also let with four Japanese, his plants of Viriand Morel, Wal d'Andorre, and Margot, boing very good; 2nd. Mr. J. Hol Mes Mr. D. Jardine, Raveliston, Blackhall, staged fide specimens in the clase for two plants of Japanese. The 1st prize for plant of a white-flowering Chrysanthemum was a warded to a well-gr own plant of Rouquet de Dame, from Mr. D. Cavanager. Mr. S. Abbott, Prestonfield House, Edinburgh, carried cff 1st honours for a yellow variety, with a magnificent plant of W. H. Lincoln.

In the class for a spacimen plant of an Anemone-flowerod varisty. Mr. J. Holmes was lat with a pretty apecimen of Dorothy Soullet; and the best Pompon was ahown by Mr. G Wood, Oswald Houee, Edinburgh. Some remarkably well. grown plants were shown by amateurs, in some cases almost equalling those from professional gardenere. The classes were also well contested.
Mr. R. Meckose, 8, Great Stuart Street, Edinburgh, wad 1st in the class for two plants of large flowered varieties; and Mies G. Munro, Beo Cottage, Pencaitland, 2nd. Mr. R. H. McBear, 6. West Montgomery Place, Edinburgh, was suc cessful in carrying off the 1st p:izes for two Pompons, on large-flowered variety, and also one plant of a white-flowere Japacese variety, his exhibite boing good is regard to the bloomes and the truiniog.

\section*{Cut Bloons.}

These classes on the present occasion, as always, were the principal attraction of the show. That for forty-eing Japinese, distinct, secured a large share of the attention of visitors, and as not a bad bloom was to be found upon the boards of the 1st pr ze exhibit, this was scareely a matter of surprise. The 1st prize, of a plate value \(£ 30\), presented by the Lord Provost, Magistrates, and Tuwn Council, and called the City of Edinburgh Priz?, was won by the wonderfully sacee the exhibitor, Mr. W. H. Lees, gr. to F. A. Bevar, Beq, Tmet Park, New Barnet, and his blooms included M, idame., Tment (awarded the prize to the best Japanese bloon in thi er. (abition) Mrs. Wheeler, Reine d'Angleterre, G. W/ Childs. Abbé Mendehall, Primrose League, E. Molynour, Mathen Octa i: Mirabeau, G. C. Schwabe, Mjns. O. Molia, Mona Panck sucks, Mrs. W. Godfrey, Duchess of Wellinton, o Shrimpto, Mins. Greyer, International, Phabens, B:an'é Toulousaine, Rose Wynne, Madame Girond, Madame A, if Gulbert, Etuile de Lyon, Mephisto, Madame Moali, J. Sht ton, Lady Saunders, Mrs. C. H. Payne, Mutaal Priend, Iteri Jacotot Fils, Sunflower, Pres. Borel, Florence Daris, Xinema, Richard Dean, Wilfrid Marshall, Madame Adaua Curtia, Charles Davis, Madame M. Ricoud, Mrs. F. Jumema, Mr. W. H. Lees, Beauty of Castlewood, Colonel Cowe, and others. The 2nd prize fell to Mr. J. Brasurs,
Castle Huntly, Longforgan, who in the two previous gean han gained the premier position. Mr.J. Carruthers, Hill Corstophine, 3rd.
In the cass for twenty-four Jadanese, or the Scotisht Challenge Cup class (open to Scottish gardeners and amstean only), Mr. D. Nicoll, Rossie, Forgandenny, took lat piza with excellent blooms, fllawed by Mr. J. Bersuyt, Mr, Carruterers stajed the best lot of twelve blooms.
For twelve incurved blooms, Mr. J. Claris, Bamerfild Selkirk, was 1st, and his stand included a bloom of C. Cutien which recoived honours as the best incurved shown. Othen noted wore Lrey Kəndal, Mrs. Culman, Princess of Wulem Lord Alcester, and Alifed Salter; 2nd, Mr. J. Martis, Wimet combe.
In the classes for six blooms of the following rarieties, K , L. Geddes was 1st, namely, E. Molgneux, Stansted White, and Mdlle. Thé eje Rey. Three magnificent blooms of Duches an Mork whe the Corstorphine.
Blooms arranged in vases were this year more numeror and were generaliy admired, In the clase for twelve naw of Japanese blooma, M P. J. Lees. with splendid flowers, securd 1st prize: Mr. J. Clark, Selkirk, being 2 a i.
For sir vases, Mr. J. Kidd, Carberry To wers, Musselbergh was 1st. For one vase, to contain twelve Japanese blome mo. J Carbutherz was ist.
Ia the class for an epergne of Chryanthemums (opel to ladies only), Mrs. R. Laird, Edinnburgh, staged an efitiv arrangement.

Mr. A. Brycor was the principal winner of prizy in th amateur classes for cat flowers, securing lst placa for thir an iffor six. Japanese blooms as well as for sir bloomid white Japanese variety. Mr. T. M. Whiterean tait if prize for sir incurvel blooms.
The thrse best blooms of one variety not in commeno nim from Mr. A. Kirk. Alloa, who won the Society's siliver with a variaty named Mrs, A. Kink, a vanety wial florets, stripad with a light yel'ow band

\section*{Fruit.}

Some first-class Grapes were noted, and these men wh principal exh bits. In the c'ass for four bunches, dictions
 el-haished berries of Muscat of Alexzndris, Alicame, colmar, and Gros Maroc; Mr. W. Murray, Pomander 2ard. Mr J. Lescie was also lst in the class for two Muatu with Biack Alic nnte and Muscat of Alesanime the list pian in from Mr. J. MCNEIL, Peebles, secured . For two bander two bunches; Mr. D KidD beiog 2 da,
Groe Culmar, Mr. H. A. WALKER, Colinton, was lit, will fine large berries, wall coloured, followed by Mr. A. Yolan Peobles.

Pine-apples were not numerous ; the two beit wore the Mr. Mctutyre,
Mr. MCINTXRE also won the lat prize for a colludiar \(t\) welve dishes of fruit, including Grapes. Melons, Figst, M, Mon acc.;

\section*{2nd.}

The best collection of eighteen rarieties of Appian six varieties of Pears, produce growa in Sootiand, coldetw mgritorious lot from M
some of his finest examples being King Pippia, wi. Pippin, Sandringham, and Blenheim Orange; Rennie, Efrol.
Mp. J. DAY, Garliestoa, securad 1st place in the open
 with exoeptionally fine fruic thr oaghoat ; Mr. Ayr, being 2nd.
In the only claes for Pears, Mr. F. Trioxsox, Yothed wh lat for six varieties.
The clase for market-growers was one for uir nim zow Apples in baskets, ae packed for marizet; and ansisor, 倍 Coldstream, was ist; followed by Mr. D. MOJUN

\section*{Vegetabris.}

The vegetables ware oxtremely good, and occupids onsiderable sface. The 1 te prize-winner for Mr. R. F. RAR, Sunlaws, R)wb righ, who bal Peas, Tomatos, Onions, Beet, B assel 8 proizs, Celery, Leeks, Cabbare, and Cucumbers, all wr. J. W, Dollar, was lat, and Mr, A. Diocson, Lamail

The bestTomatos were those from Mr. J. Paterson, Kirkcaldy whose \(t\) welve even fruits were very fine. Leeks of enormous size were extensively shown. The best eight were from Mr D. Logan, Coldstream. This exhibitor also won 1st prize for Celery with grand heads. Carrots, Turaipa, Beetroot, and other seasonable vegetables were well shown.

A good collection of Vegetables, open to market growers only, was staged by Mr. W. Smeall and Mr. D. Loein, who carried off lst and 2nd prizes.

\section*{Nurgerfmen's Olasges}

Some good exhibits both of cut flowers and plants were made by nurserymen. The lst prize for thirty-sir Japanese Chrysanthemums was gained by Mr. R Wood, Oarnoustie, who had some first-claes flowers, Mr.W.W ELLS, Redhill, Surrey, was let for twenty-four incurved blooms, and showed good varieties, and of large size and fine colour.

For the best collections of Conifers two good groups were brought by Mesars. R. B, Laird \& Sows and Messrs. J. Dick sON \& SONS, Edinburgh. These two firms taking prizes in the order mentioned. Some fine plants of Retinosporas, Cupressus, Juniperus, were noted amongat the mavy interesting forms.

Miscellaneoua Classes.
Four competitors arranged groups of plants in cirsles, the best being by Mr. P. Hunt; Mr. G. Wood was a olose 3nd The classes for table and berried plants, Pelargoniums. Primulas, and other stove and greenhouse plants, ware used frimulas, and other store and greenhoase plants, ware used contested.
Wet weather was general during the three days on which the show was open, but a large number of visitors attended during the last two daye.

\section*{S TOOKPORT CHRYSANTEEMTM.}

November 15, 16 -Thia mociety in gaining in atrength and importance each vear. If is held in the Volanteer Armonry, a large bailding in every way aited for an exaibition of plant and flowers. The Chryanthemums covered a large amonnt of table apace, notwithetanding the fife-two shows held during the week in northern Eagland, the Japanese ection particalarly being grand. Fruit was aelect and cood, particularly some of the dishen of Apples and Pearm.
Among the prize-takers for plants in pots were Captain T. H. Syres, Messts. G. H. Gaddsm, J, C. Chorlin, and J. Brown. They were gecarally a creditable lot of plants, with vigorous.
In the Japanese cut-flower section the competition was apirited and close, Mr. Boderick, Gr, to Captain Srkes, aed Mr. Richardson, gr, to JAs. E. Platr, Esq., carrying off chief hoo vurs, although the respective gerdeners to the Corporation of Stockport, G. H. Gaddam, Foq.. J. Evains, Keq., J. Lereg. Esq., G. L. Dewiuld Esq., say others, snowed well in all the c chases. The more promiaent Japanese blooms were Primrove Laggue, an immense pale primeose; Mr. G. W. Clarke. Jilac and white; Duke of York, a prononacel pale purple and white, the florets broadish, and the coloups blended in captivating atyle; Lord Brooke, orange and brownshaded Gloriosum, a very fine yellow; Chas. Divies, orange and aienna, are of the best; Viviand Morel, good wherever shown; Mre. H. Payne, E. Molyneux, Princess Miy, Stanstead White, a grand flower M Panckoucke, Presidənt Borel, Madam, Hoste, and 8. O. Shrabe. Among the incurved we noted Lord Alcoster Princess of Wales, John Duughty, Queen of England (still a leading flower). Golden Empress. Lord Wolseley, Empress of Iadia, C. B. Whitnal. Jeanne d'Are, John Lambert, Violet Zanber, Madamo Dariar, Prince Alfred, and Baron Hirsch. Among others, Hairy Wonder is notable. Mrs. J. B. Benedict was one of the more prominent of the quilled or Anemone seotion, with yellow florets in contre, and flushed pink guardpetals.
There were a fow good Orchids from Mr. Rodencer, parti cularly the Chantini form of Cypripedinm insigae; and the table plants were choice. The bouquets comprised many good flowers, and were of varions 'forms, from the circular com pact one presented to the Mayorees at the opening, to the spray ones, with Srailax and Asparagus, which now lead the fashion.
There was one capital exhibit of a group of Araucaria oxcelos, chiefly table-size plants in perfection of contour, from Mr. John Brreet, a local dealer. The plant were all from cuttiog. Mr. J. Wooler had a nice assortment of showy flowering plants, and several gentlemen in the district sent contributions of Palms. Ferns, gentlemen in to decorate the platforms.

The Fruit consisted of good Alicante Grapes from Captain 8ykes and others; the Muscats were far above the average. The Pears and Apples from Mr. McKellar, gr. to Jus. Warts, Esq., Abney Hall, were select, high coloured, and generally good.

\section*{LONGTON CHRXSANTHEMUM.}

November 12.-The Sixth Annual Show of this Society was opened in the Town Hall, on the above date. The object of the promoters is to encourage the growth of the uueen of winter flowers amongst the artisans of the district. Since its formation the growth of the society has been rapid, and the quality and numbers of the flowers staged on this occasion were very astiefactory.

In the open difision the hest twenty-four blooms incurvod distinct were from Mr. J. MoPzail, Supdt. Queen's Parle, Longton, who staged excellent blooms of Empress of India, Queen of England, Charles H. Curtis, Baron Hirach, Jeanne d'Arc, Empress Eugenio, \&cc. 2nd, Mr. J. Sropps, Derby, Mr. J. McPuail was also 1 st for six liocurved blooms distinct and for twenty-four Japanese distinct. In the latter clana he had good blooms of Edwin Molyneux, Sunflower, Good Gracious, Viscountess Hambledon, \&c. Ind, Mr. Stoprs. In the amateur section, where the classes are cunfined to residents in the borough of longton, seventeen competitors entered for six blooms distinct. The lst Prize, a Silver Cup and Certificate of the National Chrysanthemum Soclety, was awarded to Mr. A. Tays for a fine stand containing O. H. Curtis, Queen of England, Baron Hirsch, Empress of India, Lord Wolseley, Iord Alcester. 2nd, Mr. H. Warren. All the competitors in this class receive a prize.
For a group of Chrysanthemums for which the Certificate of the National Chrysanthemum Soclety, together with the prizes was offered Mr. B. Brias won with a well-arranged lot.

The three best plants of Japanese varfetien distlnct wor from Mr. J. Warren.
The other and minor classes were generally satisfactory. Some fine bunches of Gros Colmar Grapes were sent by . Tams, Esqo, the Hayes stone (gr., Mr. Bates)
Messre. Hrlu \& Sows, Spotacre Nurseries, staged cut flowers and plants.

\section*{YEOVIL CHRYSANTHEMUM.}

November 13.-The eighth annual exbibition of plants, cut blooms, fruits, and vegetables, in the municipal buildings on the above-mentioned date, was one of the best held by the Society, and much credit is due to the Committee and Hov. Sec. (Mr. E. H. Oakley) for the unsparing efforts put forth to achieve this result.
As usual, Mr. A. Crossman, gr. to J. Brotron, Eisq., Yeo-
vil, secured premier position for a grand group of Chryannthemum plants in pots, this being the seventh year in succession in which Mr. Crossman has won the chief place in this class. Mr. Biss, gr. to J. Bradrord, Esq., had the best group of miscellaneous plants, which wero arranged with ex. collent taste and effect.
Cut hhoms madea fine show in themselves. Three-hundred and twenty-four excellent flowers were staged in the chief class-thirty-six Japanese in not fewer than twenty-four
varieties-for the Mayor's prize \({ }^{2,5}\) were best from
Mr. Thomas Wilkins, gr. to Lady Theodura Gurst, Inwood House, Henstridge. His collection was of high merit, and included grand blonms of the most prominent varieties, and were large, solid, freah, and uniform in sirye, and admirably set up. Mr. Alleopp, gr. to Lord Portuan, Bryanston, Blandford, and Mr. Lloyd, gr. to Vincemr Stuckey, Esq., Langport, also showed well in this class. In other classes Mr. Copp, gr. to W. E. S. Hele Drax, Esq., Holuest House, Sherborne, and Mr. Wilkiss were winners of 1 st prizes, the former for twelve incurved blooms, distinct varieties, and the latter for a like number of Japanese. Fruit made a good display. Seven collections of six kinds were staged. The contest between Mr. Lloyd and Mr. H. W. WARD, Lonyford Castle, Saliebury, was a keen one. Ultimately the prizes were awarded in the order in which the exhibitors' names appear. Mr. WARD was 1st in several classes for Grapes, and Mr. Lioyd in another one.
is satisfactory to be able to speak well of the produce grown and shown by the cottagers residing around Ycovil. So good, indeed, were their exhibits this year, that the mayor promised to contribute another five guineas to the lint of prizes to be competed for by cottagers next November.

\section*{MABGATE AND ISLE OF THANET.}

November 13, 14 -This exhibition wat one of the very beat held in Kant daring the present season. Not only were the Chrysanthemums (both plante, groupt, and cut fiowers) of high excellence, but the fruit also and vegetables were atrongly repremented. The arrangement were better than last year, the cut flowers being placed in a better light. Many other mocieties would do well to follow the plan adopted at Margate, of placing the semicircular groups back to back, thus forming circles down the centre of the hall.
The class for a group of Chrysanthemums bronght out a atrong competition. Mr. Corwford, The Gardens, Quex Park, Birchington, was deservedly list, with a apleadid gromp, both in quality and arrangement. The dwarf-grown plants with which the group was fnidhed addel greatly to the effect. Mr, Roberts, gro to sebac Mowterions, East Ulite Loige,
 Ramgate, staged well for mad place, the large manive
For a miscellaneous group of flowering and foliago-plantr, Mr. Cornford was again to the tront with a light and trateful arrangement.
Specimea plante were stroogly represented in a number of clases, the chief of which were the following:- For tix trained apecimens, any variety. Mr. Miller, gr. to J. T. Fric protusely-flowered plants of Medame Lsoroix. Bouquet

Fait (very ine), M. Berthe mandetlop. Mer. Geo. Glengy Mrs. Dixon, and La Triomphanto (apooilily good). Mf. Cormrord followed in thie clan
With four trained plants of incurred varieties, Mr. CosmFORD was lst, the Rundle family boing well repreeented. The same exhibitor was lut for threo epenimeas of refiexed varioties; Mr. J. Burley.gr. to A. B. WAREE. Req., Wert Clity Houne, Ramangate. following with amulier planta.
In the clas for four Japaneve, the compotition between the lat and gad prize exhibit was very heen, the pooftions of the two previous wingers being reveried.
Mr. Burlity agein won for a wíngle specimen Japadee with an admirsble plant of Val d'Andorre.
The best single inourved was from Mr. E. Hawkion, gro to Sír E. WIATT, Mainoaette, Brondetaire.
An excollent and very nuggentive cles was one provided for five plants in 6 -inoh pots, suitable for table decoretion, bat the mistake mede in more than one instance was, that of forma taking and training. The let asard wont to a protty, graceful oet of plants. from Mr. H. Millere, no training being attempted; Mr. J. Burley, who wan 2nd, followed in amme What similar st yle.
Cut flowers.-The competition was very keen, and the quality first-rate. For twonty-lour incurved varietios, Mr Enden, gr. to Major Bell. Thor, Birchington, whe lot; the finest blooms were those of Benuty, St. Patrick. Lord Alcester Mrs. Heale, and Violet Tomlin ; Mr. Cornford was 2ad.
Mr. Enden occupied the same position for twelve varietion with similarly good flowers: Mr. Hollyman, gr. to G. Frgeek, Eeq., St. Peter's Court, 8t. Petern, following.
For six blooms, Mr. Standing, gr. to W. Gay, Ieq, Grove House, Weatgate, was lat.
Mr. Ennen had the bet three blooms of any incurved variety with Mras Heale.
With twenty-four varietiee of Japances in a very strong clase, Mr. F. Miller was let with an oven oxhibit, both colour and aize being atrong poiath. Mr. BollyMax followed closely in this class. For twelve varieties, Mr. Hollymar turned the tables on his opposent, and won.
Mr. Cormpord was lat for air varieties, his beet being Marie Hoste and Van der Hesde, rich in colour. Mr. Holrimam and. For six blooms in es many kinds of white ranieties, Mr. EmDer won with Marie Eosto, Théres se Rey, Florence Davis, Benuty of Exmouth, and Stanatead White, as the beot; Mr. Corrford, 2ad.
Mr. EMDEM was lat for reflered varieties, the Chrietinee and Cloth of Gold being very fine ; Mr. Cornford followed. Mr सкрek was the most succosofal also for Ancmone-flowered varieties, Delaware, Sabine, and Dame Blanche being the best. Fur twelve trebles in bunches, Mr. Wilkins, gr. to H. fine dieplay, the flowars of medium size, and good colour. Another, and an extra stroag clase, was that open to all comares in which Mr. Fanaweathen, The Gardens, Bifrons Park, Oanterbury, was 1st with twelve Japanese and twolve in curved blooms. Mr. G. Ray, The Eill, Green Street, Teynham, was a worthy 2nd.
The best besket of Chrymanthemums came from Mise J. Reeve, a beautiful arrangement.
Mr. Leadbetter, gr, to A. G. HUBBUCx, Esq., Chisleharst, showed forty-eight b:ooms of the beat varieties of Japanees. in extra fine condition, the best of the newer kinde being very prominent.

\section*{FINOHLEY CHRYSANTHEMOM.}

Novembre 14 15 -The Chryannthemam Societyat Finchley held its tenth annual exhibition in the New Lectare Hall at that place, where better accommodation exiata than the Society bas heretofore enjoyed. The exbibition was not less excellent than the best of those beld previounly, the blooms of Japaneve varieties being enpecially noteworthy among other exhibits of a general atisfactory character.
The Trophy Cup oflered by the Society for the beet collection of thirty six blooms was won by Mr. J. H. Walker, ar. at Goldbeater, Mill Hill N.W., wilh an exhibit containing blooms of finer quality than woy exhibited at pre vions shows. This being the third aucoessive yesr Mr Walker has held the Cup, it now becomes his onn property. Mr. Walker also took, on the occasion under
notice, twelve other let prizee. Mr. D. M. Hayler. gr. to Mr. W. notice, twelve other let prizeo. Mr. D. M. Hayler. gr. to Mr. W.
HANMAEORD, was another of the more succestul exhibitore, taking eleran 2nd prizes. In all there were sistr-aix clases, including those for fruit, vegetables, and miscellaneous plats.

\section*{BRADFORD CHRYSANTHEMUM}

November 15, 16.-Bradford witneseed the ninth annual +xhibition of it Curysanthemum Society on the above dates, in the St. George's Hall, where it was opened by the Prenident, Al erman W. Wood, Mayor of the Burough. Generally the bow wat more than astisfactory, and the exhibite covered a larger apace than at any of the previous exhibitions.
The leading clane for twenty-four Japanere bloome, in which the gilver Challenge Cup was linked with the lst prize, was well won by W. H. TATE, Eieq.e Wootton, Liverpool (gT., Mr. W. Haigh), and he was followed by C. J. Ormrod. Eeq. Brighouse, Bradford (Gr, Mr. A. Barber), both of whom managed to beat a collection from Mr. W. Wells, Earlawood Nursery, Surrey. The lat damed exhikitor, however, 0003piol
ood blooms of Mrs. R. C. Kingston, Princeses of Wales, and good blooms of Mrs. R. O. Kingston, Princess of Walas, and Jno. Salter; W. H. Tate, Esqas Was 2nd in this class, 1st for twalve blooms. Japanese ;
In the local classes, the Challenge Cup was won by J. W. Cockeriam, Esq., Bingley (gT.o Mr. T. Burrell), who had a very creditable collection of twelve Japanese blooms.

\section*{THE WORCESTERSEIRE BRANCE OF THE GARDENERS' ROYAL BENEVOLENT INSTITUTION.}

November 18.-The inagaration ceremony took place on the above date, in the Gaildhall, Worceater. Earl Beanchamp, the president, occupied the chair, supported by Col. Long, M.P., A. Baldwin, M.P. Canon Coventry, Col. Scallard, Rev. Thatcher, R. S. Carrington, Esq., and other counts gentlemen. There wan a crowded meeting of gardenera, and great enshusiatm prevailed.
His Lordship, when explaining the objects of the meeting. pointed out the necessity for forming a branch in the district, stating that pensioners of the parent inetitution, now residing in the connty, were actually receiving considerably more money annually in the shape of pensions than was yearly subecribed ia the county. The duty of gardeners to embrace this mean of "self-help," who by reason of their occupation in hot-huuses and exposure to extremes of temperatures, were so prone to rbeumatiam and other ailments at early stages of life, leading to possible incapacity for active work, was clearly set forth.
The depatation consisted of Messrs. Harry Veitch. Ingram (Secretary), and Vallance, of the Bristol Auxiliary. Mr. Veitch clearly explained the great advantages of the Institution, and gave statistics, showing the progress which has been made, and the amount of money paid to deserving cases, and also alluded pathetically to the large number of deserving candidates seeking relief, for which the funds are inadequate. It was also shown with what care every case was dealt with in committee. Mr. Veitch incidentally remarked that one pensioner, now deceased, had paid into the Society some eighteen guineas, and lied received therefrom in pensions upwards of 2500 .
Oolonel Long. M.P., who represents the Evesham division, including the body of market gardeners, then proposed, "That this meeting having heard the claims and objects of the Institution, hertby resolves to form an auxiliary branch of the Gardeners' Royal Benevolent Institution for Worcestershire and district, and to enrol members forthwith, eubject to the rules of the parent society, and the usual byelaws for loesl management hitherto granted to existing auxiliaries."
This was seconded by Mr. Crump, Madresfield, and, being supported, was carried unanimously, amidat great applause. Votes of thanks to the deputation were given, and acknowledged, Mr. Vallance specially dealing with the usefulness of an auxiliary as a means of spreading knowledge to gardeners of the Society's existence and aims, as well as to furnish local information to head-quarters. Mr. Ingram also pointed out the necessity for additional auziliaries in counties, and hoped the Worcestershire example would be copied.
The Rev. Canon Coventry moved a hearty vote of thanks to the chairman, and brought an enthusiastic and successful meeting to a close. A committee of management was at once formed, and business of a routine character followed.

\section*{The Herbaceous Border.}

\section*{HERBACEOUS PRONIES.}

Ir it in intended to increase the stock of these handsome flowering plants, the present time is aitable. The early autumn monthe sre the most favourable during the whole year. I have meen it recommended that thene Pronien be planted in the early part of the year, when young growthe a few inchen long have been made. Such a time is about the worst that could be selected, and will asauredly prove dianstrous to the plants. Unlike a large number of hardy plante, these Pronien do not prodace roote in continuous auccestion, but in decisive batchen at fixed periods. Did they produce root-fibres continuouly, the check by shifting would be little more than momentary. But it is not mo, and unles they are planted at a suitable time, they take two, and nometime three yearn to recover. If a fall growth be not made, the crown bud will be only partially developed, and the ensaing year's growth is proportionately feeble. When the planting in cone in the early atama, the main roots are more or lees preserved intact; and this item in the caltivation of the plants I regard as very importent, and upon it depand much of their future succes.

Few plants produce a more showy diaplay than Pronies when in full bloom in the early summer
month. Some of the beat effect are produced when large bede can be devoted to them on the lawn, or again, when planted in the fore-front of large ahrubi. Do not plant them near to large trees, or they will be sure to lack nourishment as well as moisture. In all cases a very rich soil mast be given them, preferably one of loam, though in this respect they are by no means exacting. Dry hot sandy soils are not saitable for them, anless a depth of 6 inches of clay can be added and well mixed. The soil should be trenched fully 2 feet deep, and a very liberal dreasing of manure added at 1 foot deep, as the roots quickly descend when they have the opportunity. Plant the roota quite firmly, and cover the crowns about 2 inches deep with soil, adding a heavy mulch of manare when the work of planting is finished. It is neceasary to do the work well, as when entablished the planta are beat left alone for at least a dozen years. Sach old-eatablished beds will, however, be much improved by a heavy mulch of manare early in the autamn of each year. The crowns should be encouraged far into the autumn, as they plump up considerably at this season. \(J_{0}\)

Witley Court.-We are reminded by the Journal," that Mr. Austen, the gardener at Witley Court, will soon retire from hin post and go into business; Mr. Young will leave Abberley at Mr. Austen's anccessor.

[The tarm " accumulated temperature" indicates the aggre gate amount, as well bs the duration, of degrees of named and this combined result is expressed in Daynamed : and "Day-degree" signifying \(1^{\circ}\) continued for twenty-four hours, or any ot her number of degrees for an inversely proportional number of hours.]
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{} & \multicolumn{5}{|c|}{TEMPERATURE.} & \multicolumn{3}{|l|}{Rainfall.} & \multicolumn{2}{|l|}{\[
\begin{aligned}
& \text { Briget } \\
& \text { SUN. }
\end{aligned}
\]} \\
\hline & \[
\pm 8
\] & \multicolumn{4}{|c|}{AOCUMULATED.} & \multirow[t]{2}{*}{} & \multirow[t]{2}{*}{\[
\begin{aligned}
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& 0 \\
& 0 \\
& 0.0 \\
& 0.0 \\
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\end{aligned}
\]} & \multirow[t]{2}{*}{} & \multirow[t]{2}{*}{} & \multirow[t]{2}{*}{} \\
\hline &  & \[
04720 j^{\circ} \mathrm{F} 08 \mathrm{M}
\] & \[
\begin{gathered}
\text { Bolow } 48^{\circ} \text {, for the } \\
\text { Week. }
\end{gathered}
\] &  &  & & & & & \\
\hline & & Daydeg. & \[
\begin{aligned}
& \text { Day- } \\
& \text { deg. }
\end{aligned}
\] & Daydeg. & Day-
deg. & 10ths Inch. & & & & \\
\hline 0 & \(2+\) & 28 & 13 & + 288 & + 307 & 14 & 209 & 48 & 10 & 29 \\
\hline 1 & \(1+\) & 17 & 17 & + 20 & + 468 & \(7+\) & 170 & 27.3 & 23 & 88 \\
\hline 2 & \(4+\) & 40 & 8 & \(+242\) & + 303 & 0 aver & 165 & 25.4 & 20 & 85 \\
\hline 3 & \(5+\) & 49 & 4 & + 189 & + 990 & 1 - & 143 & 21.8 & 37 & 46 \\
\hline 4 & \(5+\) & 48 & 7 & + 203 & + 879 & \(7+\) & 138 & 21.7 & 28 & 37 \\
\hline 5 & \(6+\) & 61 & 0 & \(+179\) & \(+348\) & \(8+\) & 135 & 21 & 34 & 11 \\
\hline 6 & \(3+\) & 83 & 6 & + 188 & + 402 & \(13+\) & 173 & 32.8 & 21 & 33 \\
\hline 7 & \(4+\) & 48 & 0 & + 229 & + 324 & \(13+\) & 158 & 28.6 & 18 & 38 \\
\hline 8 & 5 & 57 & 0 & \(+167\) & + 374 & \(12+\) & 148 & 31.0 & 26 & 4 \\
\hline 9 & \(1+\) & 28 & 10 & + 68 & + 801 & \(9+\) & 188 & \(30 \cdot 8\) & 24 & 83 \\
\hline 10 & 1 + & 36 & 4 & - 14 & + 231 & \(15+\) & 161 & \(32 \cdot 0\) & 30 & 35 \\
\hline * & \(4+\) & 80 & 0 & +269 & + 282 & \(6+\) & 163 & 1284 & 36 & 81 \\
\hline
\end{tabular}

The districts indicated by number in the first column are the following:

0, Scotland, N. Principal Wheat-producing Districts1. Mootland, E. : 2, England, N.K. ; 3. Kngland, E. Principal Grazing, \&c., Districts - 6, Ecotland, W. Principal Grazing, \&c., Districts-6, \&cotland, W. 10 Ireland, S . Channol Inlands.

THEPANTWERK.
The following aummary recorl of the weather throughout the Britioh Islands for the week ending November 16, is farninhed from the Meteorological Office:-

The weather darion thie period was again oxtremely unsettled, frequent and coneiderable fall of cain, alternating with intervals of cleser shy and sunchine.

The tempercture was above the mean, the excem ranging from \(1^{\circ}\) in "Seotland, I." and over Irotand, to \(5^{\circ}\) in the
"Mrdand Counties" and "England, 8.W. and E.," and to \(6^{\circ}\) in

England, S.' The highert'ot ithe' maxima, were recorded on the 16 th over England, "and earlier in thefweek "over Ireland and Scatland. They were very high for the time of year having ranged from \(65^{\circ}\) in "England, \(E_{0, \prime} 64^{\circ}\) in 'Evaland, 8. and \(68^{\circ}\) or \(63^{\circ}\) in the other Eeglish districts, to \(55^{\circ}\) in 'Ireland, \(\mathrm{N}^{\prime}\) ' and 'Scotland, N.' The lowest of the minima occumed about the middle of the period, and varied from \(28^{\circ}\) in \({ }^{\circ}\) sent land, N., to \(37^{\circ}\) in 'England, N.W."' and to \(44^{\circ}\) is ths ' Channel Islands.

The rainfa \(l\) was a little less than the mean in ' Kagland, E., 'and only just equailed it in 'England, N.E.'; in all other districts, however, there was an excess, that in antly ail localities being very large.

The bright sunshine was more prevalent generally than that recorded during the preceding woek, and exceeded the normal amount in all districts. The percentage of the paible duration ranged from 37 in 'England, E. . 36 in the 'Chanel
 and 10 in 'Scotland, N.'

\section*{Markets}

\section*{COVENT GARDEN, November 21.}
[Wo cannot accept any responsibility for the sabjoined reports. They are furnished to us regularly every
Thureday, by the kindness of several of the principal Thureday, by the kindness of several ho the principal
salesman, who revise the list. and who are reaponitle for the quotations. It must be remembered that them quotations do not represent the prices on any particular day, but only the general averages for the weet precediog the date of our report. The prices depend apon the quality of the samples, the supply in the market, and the demand; and they may fluctuate, not only from day to day, but often several times in one day. ED .]
Plants in Pots.-Average Wholesale Pheges.
Adiantum, per doz.
 \begin{tabular}{cc|l|l|} 
Aspidistra, per doz. & 12 & \(0-30\) & 0 \\
Ficus elastica, each \\
\(50-15\) & \(10-20\) \\
Foliage plante, doz. \(120-40\)
\end{tabular} - specimen, each Chrysanthemum
doz. pots (specim Cyperus, per \begin{tabular}{llll} 
Dracæos, each darious, p. doz. 12 & \(120-74\) & 0 \\
\hline
\end{tabular} Enicas, various, doz.
in variety, doz.... 6 0-24 0 Ferns, amall, doz.... 1 6-3 0

CUT FLOWERS.-AVERA
Arums, p 12 blooms Azalea, 12 sprays... Bouvardias, per bun.
Carnations, 12 blms. Carnations, 12 blms. per 12 blooms - per 2 bunches Gardenias, per dox. Lapageria, per doz. biooms
Lilac, Frencḧ, p.buñ. Lilinm Harrisii, do.
- lancifolium, per
dozen blooms
Lily of the Valley, Mer doz. apraye... Maidenhair Fern, per 12 bunches \({ }^{\text {Marguerites, } 12 \mathrm{bn}}\). \(\qquad\)

O.

Frutt.-Average Wholesale Prices
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{3. d. s.d.}} \\
\hline & \\
\hline \multicolumn{2}{|l|}{buehel ... 8 6-6 0} \\
\hline - Blenheim & \\
\hline - bushel .e. 3 & Alic \\
\hline Kinge. per & \\
\hline bushel ...3 0-4 & \[
\begin{aligned}
& \text { uscat, } \\
& \text { lity, p. lb. ... 26-30 }
\end{aligned}
\] \\
\hline Cox's Orange. 3 b- 60 & - Muscat, 2nd qua- 1 - 20 \\
\hline Cooking vars., & \\
\hline per bushel 16-30 & Pears, Duchess, hail \\
\hline \[
\begin{aligned}
& \text { From Nova } \\
& \text { Scotis, per }
\end{aligned}
\] & Beurré Diel, pe \\
\hline berrel ...11 0-14 0 & \\
\hline Cobs, per 100 lb . ... 300-35 & Pine-apples, \\
\hline \multicolumn{2}{|l|}{Grapee, Groe Colmar,} \\
\hline 1st quality, lb, 1 6-1 & , \\
\hline \multicolumn{2}{|l|}{\begin{tabular}{l}
Gros Colmar, 2nd \\
Walnute,
\end{tabular}} \\
\hline & \\
\hline artables.-Ave & Weolesabe par ed. 4 \\
\hline
\end{tabular}

\section*{Cauliflowerm, p. crat} ( 5 to 8 dow.
Mushrooms, per \(1 \mathrm{lb}, 10-13\)
Cucumbers, per doz. 2 6- 46 Onions, Datch, per cwt. bag.

Onions, Eng., bush. omatot, Home

Ротатон. 7 多, to 800 . Trade slow; stocks increasing. Best mamples, 70s. to th 45 Lincolne, 50 .

SEED8.
Lomaon i November 20.-Mears. John Shaw dend fin
Kerchanty, of Great Maze Fond, Borough, Lambon Cerchants, of Ereat Maz Pond, Borough, Lam
report to day's market bare alike of buyers and of businese. Clover and grass seeds show this week no change of import ance, Bye and Tares continue slow. Canary seed is firmer abroad; Turkey refuses for the moment to make offere The new Hemp seed comes remarlkably cheap and gool. Peas and Haricots are held at former figures. Some Malagasy Butter Beans are now seluing at unprecedentedly lo rats Linseed favours sellers. There is no alteration in ratho Mustard or Rape seed.

\section*{FRUITS AND VEGETABLES.}

Borover: Nov. 19,-Quotationa:-Cabbages, 2s. 6d, to 33. per tally: Turnips, 2s. to 3s. Bd. ; Carrots, 2s. to 3s. 6d. per dozen bunches: Apples, 3s, to bs, per buehel ; Walnuts, 4s. to 5 s , \(6 d_{o,}\) and Chestanuts, \(48,6 d\). to 68 . Bd. per bag.
SPTTALFIELDS: Nov, 19.-Quotations:-Cauliflowera, best, 3s. to 8s. per tally; do., seconds, 2s. to 3 s. do. ; Greens, bunch, 1s. to \(18,8 d\). per dozen; Collards, 18. 3d, to 18, \(8 d\). per tally; Savoys, 2s. to 4t, do.; Sprouts, 18. to 1s. \(6 d\). per balf-sieve: spinach, 2s. to 2s. ©d, per bushel : Carrots, 2s, per dozen bunches; Turnips, 1 s .6 d , to 2 s . do. : Parsnips, 8 d , to \(8 d\), per score ; Celerg, \(9 d_{0}\) to 1 s . par buadle: Carrots, 28s. to \(30 d_{0}\) per ton; Onions, 3s. 6d. to 4s. per cwt. Beatroat, is to 308. per per bushel ; Apples, cooking, 3s. to \(38.6 d\). per bushel ; dessert, 4s. 6d. to 5s. 6d, do.
Stratpord, Nov. 19.-Cabbages, 18.6d. to 48. 6d. per tally Savoys, 28. to 58 . do. ; Greens, \(18.3 d_{0}\) to \(18.6 d\). per bag'; do. \({ }^{18}\). to 1 ss . \(6 d\) d. per dozen ; Cauliflowers, \(8 d\). to 1 s . 3 d . per dozen; do., 2s. 6d. to 6s. per tally ; Scotch Kale, 9d. to 1s. per sieve: Turnips, 1s. to \(1 s\). \(6 d\). per dozen bunches; do., 30 s . to 35 s . per ton; Carrots, hoasehold, 28s. to 32 s . do. \({ }^{2}\) do., cattlefeeding, 18s. to 258 . do.; Parsnips, 45 s . to 55 s , do. d Mangels, 12s. to 15s. do.; Swedes, 15s. to 18s, do. Onions Ghent, 55 s . to 80 s . do. ; do. Ports, 4 .
 \(2 s\), bd. to \(3 s_{0}\) bd. do.; Pears, Kaglish, 33. to 3 s. 6d. per
 per dozen ; Horse-radish, 18.3 d . per buadie; Paraley, 1s. to 18. \(8 d\). per dozan bundles. There has been a plentiful supply during the week, and a fair trade done at the pricos shown above
FArringdon: Now. 21.-Quotations:-Cauliflowers, bep, per tally; Greens, 9d. bunch ; Sproate, 18. 84. per hali--ieve; Celery, 4s. per dozen rounds ; Turnipm, 2s. per dozen bunches; Carrots, 28. do. : Leeks. 2s. do.; Horseradish, 1s. per bundle; Beete, 1s. \(6 d\). per bushet; Herbs, 2s. per dozon buaches; Parsnips, 18. per score ; savoys, bs. per tally: Apples, Blenheim Pippins, 4s. ©d. per bushel ; Pears, Bishop's Thumb, \(2 s_{0}\) ©d hatf sieve; 8towing do., 2s. half bushel ; Canadıan Apples, Gravenstens, per birrel; Newtown Pippin, 14s. to 16s. do. : Gravenytens, 11 s . do.; Tonkins King, 15s. do.; Calıfornian Pears, 103. to 15s. per case; English Grapes, 1s. to 18. 2d. per 1b.; (Eanglish) 4lmira, 10s. and 14s. 8d. per barrel; Tomatoo, (Eaglish), 4s. \(6 d\). per 12 lb ; Walnuta, 6s. 6d. per bag; Chestnuts, 98 . and \(12 s\). do.

\section*{POTATOS.}

Boroval: Novembar 19.-Qaotations ranged from 40, to 90s. par ton.
SPITALFIELDs : November 19. - Quotations: - Sutton's Crop Kiace, Jus. to 70s.; Hebrons, best. 60s. to 808. Main 35s. to 55 s. . 50s. to 70 s. Bruces, 40 s. to 60 s . : Reading Giants, 35 s . to 55 s . ; Imperators, 45 s. to 55 s . per ton.
STRatrusd, November 19. -Quotations:-Bruces, dark moil, 35s. to \(40 \mathrm{~s}_{0}\); do., ligat. 40 s o to 80 s . ; Reading Giants, 40 s . to 50 s. ; sutton's Abundance, 458 . to 70 s. per ton.
Farrinedoy: November 21.-Quotationa: Main Crop Kid neys, 758. to 858 ; : Jeannie Deans, 65 s, to 758. ; Sutton'e \(\Delta b u n d\) 65 s . per ton 75. ; Braces, 45 s . to 55 s. ; Maganms, 45 s , to . per ton
Lompon Averages: Nov. 20. - Snowdrope, 7us. to 90s.; Hebrons, 70s. to \(90 \mathrm{~s}_{\mathrm{s}}\); Dunbars, 90 s , to 100 m o R Regente, \(60 \mathrm{~s}_{\mathrm{s}}\) to 30 s ; Sutton's \(A\) bundance, 00 s . to 65 s . : Puritans, 55 s . to 60 s . Imperators, 55 s , to 65 r ; M Magrums, 40 s , to 50 sos ; Early Rose, 5 5s. to 60s. per ton.

\section*{HAY.}

Averages.-The following are the averages of the pricos at beat, 80s. to 110 s. : do., inferior, 50 s . to 70 s . ; hay, best, 60s. to 80s. \(\mathrm{do}_{\mathrm{a}}\) inferior. 88s, to 60 s. ; mixture. 70 s . to 87. 6d. ; and straw, 20s. to 448. per load.

\section*{CORN.}

Averagas. - Official statement of the average prices of British Corn, imperial measure (qr.), for the week ending November 17, and for the corresponding period in the previous Year:-1895: Wheat, 26s. 1d.; Bariey, 25s.; Oats, 14s. 4d 1894: Wheat. 192. 1 d. : Barley, 22s. 7d.; Oata, 13s. 10d.

Buildina World."-This is the title of a new illuetrated weekly journal, which is pabliched by Mesars. Casselc \& Co. (La Belle Savare, E C.): The paper deals with all branches nf the bailding trade, inclading carpentry, plumbing, whitewashing, \&c., the nteful information thereon given being applemented by varions illuatrations. For the price asked-a penny-the paper is certainly a good avd

\section*{Trade Notice.}

Jomi Ceanston having removed from the King's Acre Narseries, will feel obliged by all commanications being now addressed-Jorm Ceanston, Little Birch, near Hereford.


Adderss: W. Cockin, The Dell, Egham.
Azalea modica Grafting: Co \(H\). J. Grafting in usually practised on potted stocks of Azales pronicea and purpures, two easy-rooting strong growers. Modes are side, whip, tongue, and clett. Grafting must be done in the apring in a clone case placed in a house having a minmam warmith of \(65^{\circ}\). It is as well to use grafting-wax to cover the point of junction.
Bоокs: G. A. K. See p. 436 of our issue for Oct. 12, the preaent year.-Enquiver. The Dictionary of Gardening, by Mr. G. Nicholson and othere, publinhed at the Bazaar office, 170, Strand, would afford the information required. Hardy Ornamental Trees, \(\mathrm{gco}_{\mathrm{o}}\) A. D. Webuter; 1, Ciement's Inv, Strand.-E. Grimsdick of Sons. Obtain The Nursery Book: a Complete Guide to the Pollination of Plants, by L. H. Bailey, New York Pablishing Co., through any foreign bookeller.-Joe. Propagation and Improvement of Plants (Barbidke), How Crops Grow (8. W. Johnson). The Fruit Manual (R. Hoge), Plant Life (Dp. Maetere).
Bottling Tomatos: J. G. Bottle Tomato an jou would any otiaer kind of frait. Your beat chance of auccess will be to gather them before they are very ripe and jaicy. Tomatos do not, as a rule, keep well, unlest they are plensifally mixed with vinegar and spice. We gather from your note that you wish to bottle the fruit whole, and without any adjanct.
Catrrpillar in Apple Tres Stia: Enquirer. The apecimen sent is the caterpillar of the Wood Leopard Moth. When holes in fruit or other trees with what seems like sa w-dust lying on the ground beneath are noticed, the grab it at work within, and to kill it force a plece of wire up into the hole, or inject atrong tobacco-water.
Cattleya and Jatelia in an Ungatisfactory Statm: W. S. Either the house in which are the Cattleya and Laolia must be too hot and clone, or in some other way unaitable to the plante, or elee they would develop preudo-balbs. Examine the arrangemont for heating and vensilation. The term, "entablished in sheath or bud," applied to a number of plante, would mean that they were not freshly imported, bat cultivated plants, and that each would have either a flower-sheatb, from which bads might be expected, or viaible buds.
Chrysanthemums for Blooming in the Open in November: W. Price. The Pomponm of all varieties are excellent, giving quantities of bloom, and looking well when planted in bed by themelves. Mont of the Queen of England varieties in incurved make a good how, and not being tall growert, requiring unaightly long atakes to support them, they are admirable for planting on sheltered borders and against walle. Japanese varieties are Dr. Macary, Peter the Great, Elaine, Margot, Daimio, Lacroix, Geo. Gordon, Harlequin, and probably many others,
Corbrctions.-In the Royal Horticultral Society's Report, November 16, re Laddemanuia trifolia, read L. trilobe ; and for Cvpripedium Pollettianum Burford Beauty, read C. P. B. variety.
Eigit Hundred Fegt of Glasshouse Unhrated: Alpha. It might be filled with Rhododendron hybridum, Crocas, early Talips, Hyacintha, Narciasue, Sullae, Spirran, and Chriatman Rose (Helleborns niger). There would be no need to use pots for any of these.
Erica: C. H. J. When the growthe are about half mature, and they should be taken from the more exponed wood at the sides and top of the plants. They should not exceed 1 inch in length, and the leaves on the lower half mut be carefully removed. Strike in pare ailver-and, overlying sandy peat, in pote of not more than 5 inches in
diameter. Water well, allow the cuttings to get dry, then cover with bell-glese, and place in a low pit or house, having a temperatare of \(60^{\circ}\) Shade them from direct aunsine. Ramove the glaes daily, and wipe it dry, replacing it in aboat a quarter of an bour. Apply water when necessary, and carefully guard agaiuat damp; therefore let no decaying calliog remain in the glam.
Grapes: W. A. Madreatield Court, Frontignan (grizzly), and Fonter's Seedling, being early varioties, ancceed together ander one kind of treatment.
Insecta: \(W, P_{0}, N_{0}\) The grube of a apecien of weevil,
Judenng Vegetablea at a Show: h. h. P. We think that the \(+x\) bibitor of collection B, ought to have been disqualifed for showing pine kinds where only eight were required, and the first prize given to \(\Lambda\)., not because his were the butter productions, but simply for the staton that B. wet "out of it "owing to disqualification. If there is a achedule it rales ebould be abided by, and thore trangressing them auffor in consequence.
Manurina Tonatos: T, P, R. Stable manure in n partially rotlen condition, and quicklime, will be suitable, but the land should not be rendered very rich, or your plants will run too much to leaf, and they may auffer badly from diseases of one wort or another. The Tomato likes a dryish, lonmy moil; and manure at the time there is the greateat call on the energies of the plant, and this is best afforded by top-drensings of artificials or atable draininga.
Marguerite with Mites upon Roots: J. K. We notice numbers of mites upon the roote, bat they are not likely to cause any injary to the plants.
Muscat of Aurxandela: \(D\). K. The two names given are idenucal whith the above, which has many more synonyms. The only distinct variety is the Canon Hall Muscat.
Namps of Fruits: Subecriber. Worksop. Apple Bibaton Pippin-Sigma. Tre Pear is Baronne de Mello; Apple reserubles King of the Pippine, but we are not certain; fruit danaged.-H.B. Durham. 1, Waltham Abbey Spedling; 2. Old English Cudia; 3. New Hawthornden; 4 Worceater Pippin; 5, not known; 6. Tibbecte Pearmain.Jo Rose. Apple American Mother,-Racio, 1, Pear Uvedale's St. Garmain ; 4. Baurí' Del ; 2,
Cox's Orange Pippin; 8 Kerry Pippin; 6 Fearn's Cox's Orange Pippin; 8 Kerry Pippin; 6, Fearn's' Pippin; 5, a pretty bat worthless fruit.
Names of Plants: Correapondents not answered in this isone are requested to consult the next number.E. H. C. Aster ericoides.-J. B. S. Pleria ambrosam. - G. S. F. 1, Dendrodiua apecionum; 2, Brastavola nodoma.
Neapolitan Violets in Flower at the End of Drcmbrer: Hulda May. It they will not thower with cold frame treament, you cannot basten them by uving heat without apoiling the plante. For early blooming, de Parme and Marin Louice are better; asidouble-flowered varieties-Neapolitan coming into bloom in quantity late in the winter. The proper sort of anmmer treatment of plantednot ranners has much to do with the flowering of Violets, but we do not know what this was in your case.
Peach-hodse for Mariet Culture: T. P. R. Spanroofed house, with ratter 12 -feet long, no side lights, low side wall of weather-boarding, tarred, and aprinkled with sand and lime. The root should be fized, a 2 feet apace on either side beiog left for ventilation, and which can be closed by over-lapping lights, to be opened and thut by acrew or lever. There ahould be ample ventilation by means of hit-and-miss shattere or clappers. Hot-water-pipes ahould not be placed between the atems of the trees and the walla, but 2 feet away atem of the treen and the wallis, bat 2 feet away
from the former. No laid pathway ie required, lattice or apar gangwayesofficiog. If early forciog is intended, have double wooden wall with a 6 -inch epace between, or employ bricke or concrete, whichever is the cheapest. For training the treea employ atout iron wire (not galvanised) ren through eyed spikes 15 inchet long, driven into the rafters, no need to have acrew ends, these length of wire being at not more than 8 inches sombt. Train the trees fanwise, and plant them at 20 feet apart, with ridera, have 5 or 6 feet etemt midway between the fans, to bo cat awav at the latter encroach npon them, and finally removed altogether. Use plenty of loam, lime-rabble, and road-grit as well, if the voil be natarally heavy,
and see that the drainage is good. Plant the trees within 6 inche of the side walls, and let the roots ran outside and inside. The borders need not be made up to their full width for two or three yeary.
Peaches Preserved Whole: J. D. R. A clever cook tells us that these fruit are preserved by immersing them for balf-a-dezen times in boiling, thick grad, letting them ramain in it each time for fire minates, and laying them on a sieve to drain pach time that they are taken out of the ayrap. They are then placed in cold, thin, angary ayrap, and corked down securely, the end of the bottle being then dipped in melted wax. The fruit mast be without braise or blemish, and not ripe enough for dessert purposes.
Popular Apples: Sir C.S. The Apple referred to was Peasgood's Nonsuch, said to have been raised from a seed sown hy a young lady at chool, nursed up with kill and care under the same fontering, and finally planted in her wedded-home garden, where the new Apple exceeded the moat eadguine expectation of the raiser and her frienda, and it is already recognised as one of the mont popular and profitable market Apples of the day. D. T. F.

Pbicre or Books: N. 1, We are unacquainted with this book; 2, the price of this book we do not know. It is pabliahed at New York, by G. P. Patnam' Sons, and you should enquire at their London branch, 27 King William Sireet, Strand, W.C. . f10 10s.; 4, about 15s. Pablishers should advertise their wares like other people, and not expect us to give them gratic advertisement in addition to editorial notice.
Quassia-watbr for Killing Aphis, \&c.: T. A. B. Boil 4 oz . of Qaasaia chips in 1 gallon of water, and add 40 z . of noft-soap, which should be dismolved in it as it cools. In about ten minates after it has been applied to a tree, scc, ayringe it off with clean water.
Schbdule: Collection of Vegetables, Eight Distinct Varibties: W. B, For varieties write kinds; for inatance, Cauliflower is a kind or sor of vegetable; but Early London is a variety of Caaliflower. If you show two varieties of any one kind in a collection, you ought to be diequalified and we note that you include in your liat two varieties of Potatos, two of Onions, two of Car rots, and two of Tarnip. We should greatly doubt if the chedule-framers intended that exhibitors ahould construe it in that light.

Serding Apple: J. House, A showy fruit, noft in lesh, and not of much flavour. Nice for home pap, but not fit for market purposen, apart from ite high colour
Trichopilia suavis: Suavis. The white Trichopilia suavs alba is atill a rave plant. Some varieties open white, but soon abow colour, and auch are not trae." To be "alba" no rone colour should appear in the flower at any stage.

Commumications Recerved. - E. F. Green.-Chas. Last, with thanks, -G. D.-C.W.C.-C. K.-C. L.-W. Gee, next week J. B. - M. T. - D. T. F. - W. A.-E. J. - Weigelis. - F. W. W.E.-T, W.-J.J. W. \(-\mathrm{E}, \mathrm{W}\). - H. P, M, -R, R de B
 Brighton Examiner. - F. C. C.-Haus Echiux, Zurich:J. K. J. - B. D. J.-G. N.-T. S., Ireland ( thanks, but matter now aut of date).
Photographs. 8picimene, oden Recerved with ThanksW. Rewall-H. O., Weetbary,-T. B.-T. W. B.

DIED - We regret to announce the death, at the age of zeventy yeare, of Mr. Robert Henderion Young, mursery forpman to Mears. T. Kendedy \& Co., Damfries, on November 12, the fortieth anniversary of the day on which he entered the aervice of the firm

\section*{CONTINUED INCREASE in the CIRCULATION OF THE} "GARDENERS CHRONICLR."
Impnetairt To ADVERTIGERS.-The Publisher has the alis action of announring that the circulation of the "Gardeners Incrensed to the axtent of mors then 80 per cent and that it continuen to increase Feetly.
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& \(20 \times 14\) & \(20 \times 16|24 \times 16| 2 \times 18\)
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Mr. James Leslite, of Keithock, as Gardener to Mrs, Muran W oodside House, Burrelton.
Thain, from Kinfauns Chatle Gardens, succeeds \(y_{\text {r }}\). Leslife as Gardener to E. Colluns-WT00d, Req, of
Keithock House, near Coupar, Angus, N.B.
Mr. A. Bayford, for the past five years Foreman at Madrow field Court Gardens, Malvern, succeeds Mr. 8. T. Whrery as Gardener at Gtewston Court Gardens, Rose,
ALf Xander McLean, for the last seven yeara Chandenes
at Salterbridge, Cappoquin, co. Waterford, Major SADLIER JACKSON, Ahanesk, Midetem, ce. Cork to
. J. Watsen, for eight years in the Gardenat Cluydea Park, Bucks, \(\% \mathrm{~s}\) Grdener to the Missed Linth, Uppar
Heath House, Hampstead, N.W.
T WaM
. James Hambleton, for the past siz years in tha Gurden
at Binfield Parta Bracknell, as Gardener at Binfield Parl, Bracknell, as Gardener wo aptaic Freville Cookson, Dane End, Ware, Herth

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GARDENER (Hrad).-Age 34, married, no Gardenar. Thoroughly practical in all branchem. Life ex-perience.-J TUCKER, Roweobank, Caterham Valley.
GARDENEK (HKAD); age 34.-A SHE1PAMD, with any Lady or Gentleman sequiriag the bervicen of a thorough practical man.
(GKDENEK (HEaD); 80.-Mr. How h, Withe Gardener to Honry Tate, Fup., Park Hill, Strentham, been with him five yeorn. Life experience in all branches of the profestion
GARDENER (HEAD WORKING), in a good eatablushment.-Age 40; married. Thoroughly experi enced, including Orhids and Chrymanthemume; all kinde of Forci ga. good Pruit Grower Insido and Out, Flowar and Kitcben Gardeniog: harge oxperionce fa Lasdecope and Remodelliph Pleasure Grounde. Could undertake all hinde of Entate Work.
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To Nurverymen
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MPROVER under good Gardener.-GentLe-

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and Management of Mariket Garden.-W. B. B., 41, Wellington Btreet, Strand. W.C
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A.. J. Heary Street, Gray's InM Boad, W.

Send Trade.
A SSISTANT SHOPMAN.-Age 24; seven 1 years experianoe, molk re-engerament, Good refer-

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flURISTS. - Young Lady desire an eagagement im or near Loodon. Oify preferted. Experieood in Th-Thames.

TOO MUCH STRESS cannot be laid on the atrugge for existenoe in unis genarnion, no attention Whatevar ys vouchated to the zoat ordinapy rules of bealto. Whatever s vouchomed to the zoat ordinary rules of health. Wnd the brinameariee at the relighed, tha nerven overnensitive, part of Nature's waraings that the delicate organpero of the and mild restorative in all that in required to imptimulan vitality to the inded nerves and it is a well- known fact thos few doeeo of BULLOWAY's PICLS wozk wondens and rectore

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For RAISING WATER for the Supply of Towns, Villages, Irrigation, Railway Stations, Mansions, Fountains, Farms, \&c. No cost for Motive Power, which is obtained from a Stream of Water passing through the Ram. No Oiling or Packing required. Made in sizes to raise from
 300 to 400000 gallons per day. Will force to a height of 800 feet.
\begin{tabular}{|c|c|}
\hline In & This View represents a Ram
worked by impure river water. Whilat pumping pure water
from a well or spring and from a welt or sprigg and
forcing it to small reservoir on the hill. at an elevation of
532 ft ., and a distance of one mile, from which reservoir the extinguikhing
requirements \(\begin{gathered}\text { and } \\ \text { of maneion, }\end{gathered}\) stables, farm, and village. \\
\hline
\end{tabular}


TESTIMONIALS:

From T. FEBNYHOUGH, Esq., Agent to the RIGHT HON. LORD HINDLIP, DEAR SIR, - Braaley, Ashbourne, Deror months ago for the Right Hon. Referring to the two Patent "B" Rams you gtarted to congratulate you on the fuccess cf
Lord Hindlip, on the Alsop-en-le-Dale Estate, I am glad your attempt to raise the necesary 63 times that of the working fall. The Rams are raise the water being more than 63 times that small working fall of 8 ft . 3 1ns,, and worked by water from the close by is a copious stream of pure spring water, 8000 gallous per day of which the Rams force to a reservoir three-quarters of a mile distant, and at the extraordinary height of \(\mathbf{5 2 3} \frac{1}{2} \mathrm{ftu}\) above the Rams. The water is then gravitated from the reservoir to the several farms and houses on the estate, giving an ample supply to each, an
good orerflow at the reservoir. grest ease and smoon that the Rams lift more water than you promised, and seem to work with From the RIGHT HON. THE EARL OF HARROWBY, 44, Grosvenor square, London,

SIR. - Thave pleasure in stating that the two Hydraulic Rams which you supplied avd fixed for me last autumn, at Sandon, bave proved so far most successful, and that the work gives every promise of durability, while the economy, compared with the former mach smaller and intermiltent supply by steam-pump, will be considerable.
W ith a fall of about 14 ft . from a previously-existing mill-pool, the Rams supply re:ervoirs 168 ft . above the brook whenoe the water is forced, through pipes \(1 \frac{3}{3}\) miles in length. They tent up, as long as I required it, about 41,000 gallons per day. I now generally work the two Rams alternately (for a fortnight or so each).
full supply of 41,000 gallons should be needed
full supply of 41,000 gallons should be needed.
ingular promptness and punctuality; and no local difficulties arose in the execution of the singular promptness and punctuaity; int men whom you sant from your works at Accrington. Wor am, sir, jour very obediont Servant,

From T. DYNE STBEL, Esq., M.Inst.C.E., Past President South Wales Inse of Engineers, Bank Chambers, Newport, Mon USK WATERWORKS.
DEAR SIR,Sk Waterworks, to be capable of raising 27,000 gallons per day, a height of purpoees of the orking fall of driving water of 27 ft , and on your guaranteeing that perfor 127 ft .. with a n order for the Ram. The machine you supplied has now been put to mormance, I gave goa tisfaction expectations saying that the following ats length of gur gratifying result of 83 por cent. of efficiency. The tests were carefuly made and repeated, The water measured and levels properly casen. Several trials were made, aud I thall be glad to rive any engineer interested in the subject facilities for repeating the tests at the spot. I mbs bere state that for the rising main I used a large diameter of pipe, in order to reduce friction, with excellent effect,-Yourg faithfully,

From Martin CURTLER, Esq., Agent to the Right Hon. LADY NORTHTIOL Sansome Place, Worcester.

Feb. 18, 1895.
DEAR SIR, the Right Hon. Lady Northwick, at Northwick Park, last year, has worked, and is working most satisfactorily. Nater, as fou kow with 1,900 yards of rising main pipe, 10 a large tank on the top of a hill, in arder to suppl saveral farms on the estate with water by gravitation.

The supply to the tank is most ample, and there is an adequate overflow left below the Ram Altogetber the work is a very great success,-Yours faithfully, MARTIN CURTLER
JOHN BLAKE, Oxford Street Works, ACCRINGTON, LANCASHIRE.


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}

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No. 466.-VoL. XVIII.
\(\underset{\substack{\text { Turd } \\ \text { Skris. }}}{\substack{\text { a }}}\) SATURDAY, NOVEMBER 30, 1895. (



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ton, Yorkshire... Weeks work, the Fruits Garder, the Fruits under glass Hardy fruit garden Plants under glass

\section*{TRATION8.}

\section*{ILLUBTRAT}

Articholse, the Faris Green Mr. Richard, portrait of
Ravges of Houses at Whiteley's Nurserios
Tuwn garden, at Hanley
Trehopilia brevis

S
UUTONS' PRIZE CYCLAMEN, mired, per packet, 58 s. and 2 s .0 d o, poast free. November is the The \(G\) to sjo Oyclamen seed
some cultivening Horld, Februsry 24, 1824, bayn:-" Whise Memara. Sutors grow their Oyclamens for apring flowering autumn sutton \& Sons make a point of having a diaplay in the sown in Nocember 189 through the winter. The seeds were mooths. They have been flowering freely erer incent and will continue in presentable and handecme condition till six monthe havo elapeed \({ }^{\prime \prime}\)

SUTTONS SEEDS GRNUINR ONLY DIREOT FROM SUTTON AND SONS, THE QUEEN'S PLANT NOW for FORCING. - LILY OF multiflora, Dielytra, spectabiliop occ, All tharoughly ripened and in CATALOGUE, No. 453, free on application.

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CARNATIONS. - Self oolours a speoial feature. Malmaisons, benutiful eoft pink var., good stutt, reody for flowering. Pots, 12s. to 188. per doz.; blumb var., 98. to 12 s . por dozen. Send for Catalogue.

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50,000 EUONYMUS, Green and Golden, , 10 all splendid buthy planto.-GREEN: 12 in. to 15 in , at 30 s . per \(100 ; 18 \mathrm{in}\), to 18 in . at 40 m . per 100 ;
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GOLDEN: \(\delta\) in. to 12 inion at ss, to 88 . per dozen. Onth with
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OT VINES,-Strong, well-grown, Fraiting Gambro, Muscat, and Alicante., Apply,--

FERNS AND DECORATIVE PLANTS!-(TRADE):-Ferse, in 9 -inch pote, Stove and Groenhouse, 30 best seling er
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TLIES for the GARDEN.-Lilium lancifo I D. HAMON, Bulb, Importer, Jamaica Bow, Birming ham.
R OSES for SALE.-W. A. Richardson and Ru Gloire de Dijon, 358. per 100, or 6s, per dozen; and H.P Roces, 5s, per dozen or 25 s , per 100 , all good sorta. My seles
tion, solid good stuff, 15 s . to 18s. per dozen. Manetiti stock tion, solid good stufi, 15s. to 188.
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SMILAX, MYRSIPHYLLUM ASPARA GorDes, nice young stue in thumb pote rady to pot on, Nurverice, Hilliagdon Hiouth, Uxbridge.

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To h. R.H. The pauree of Wales.

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\section*{SALES BY AUCTION,}

SALES NEXT WEEK.

MESSRS. PROTHEROE and MORRIS will SELL by \(\triangle\) UCTION at their Central Sale Rooms, 67 each day:
MONDAY, December 2:-Dutch Bulbs, 700 lots, at \(120^{\circ}\) Clock. 170 Azalea indica, 50 A . Mollis. 50 Retinoepora plumosa aurea 100 Euonymus in variety, 150 Cyrtomium falcatum, Palms Draczenas, Ficus, and other plants from Belgium; 400 Standard and Hald-Standard and Dwarf Roses; 70 lots o Choice Stove and other usefnl Pot Plants; Spireas in variety; 100 Lilitm, including auratum, lancifolium
album and rubrum, Browni, Murtagon, \&ce, 700 Lilium
WVand Washingtonium, Humboldit rare Calochorti, Hemerocallis, \({ }^{20 \mathrm{C}}\) lock.
TUESDAY, December 3:-Dutch Bulbe, 750 lote, at 12 o'Clock. WEDNESDAY, December 4 : - Dutch Bulbe, 600 lots; also Hardy Buibs and Plants, at 12 o'Clock
TBURSDAY, December 5: - Dutch Bulb3-600 lots; also 200 Azalea Mollis, 100 A. indica, 50 Camellias, 40 Rhonodendrons, and 250 Spirees japonica, from Belgium: 200 Perennials, at \(120^{\circ}\) Clock.
FRIDAY, December \(6:-\) Dutch Balbs, 700 lots, at \(120^{\circ}\) Clock. ORCHID SALE-see Separate Advertisement. On view mornings of Sales, and Catalogues had.

\section*{Thursday, Dec. 12.}

\section*{GREAT SALE OF JAPANESE LILIES,}
eing an important consign
comprising
18.4ㅇ. IUM AURATUM.

SPECIOSUM ALBUM.
LONG̉TELORUM.
KRAMERI, extraordinary bulbs
TIGRINUM SPLENDENS. BROWNII.
MELPOMENE
AURATUM VIRGINALE.
RUBRO-VIMTATUM.
\(\begin{array}{lll}140 & \text { " ALBO-MARGINATUM. } \\ 140 & \text { LRETRELINIL. } \\ 180 & \% & \text { THUNBERGIANUM ATRO-SANGUINEUM. }\end{array}\)
\(\begin{array}{lll}140 & \text { " ALBO-MARGINATUM. } \\ \mathbf{1 4 0} & \text { LRITCHLINII. } \\ 180 & \% & \text { THUNBERGIANUM ATRO-SANGUINEUM. }\end{array}\)
\(\begin{array}{lll}140 & \text { " ALBO-MARGINATUM. } \\ 140 & \text { LRETRELINIL. } \\ 180 & \% & \text { THUNBERGIANUM ATRO-SANGUINEUM. }\end{array}\)
98,000 Seedi KRNTIA BELMOKEANA, in exepptionally grand
110,000 , CORYPHA AUSTRALIS.

MESSRS. PROTHEROE AND MORRIS will ELL the above by AUCTION, at their Central Sale Rooms, 67 and 68, Cheapside, London, R.C., On THURSDAY On view morning

\section*{Friday Next}

MESSRS. PROTHEROE AND MORRIS will SELL by AUCTION, At their Contral Sale Rooms, 67 and 68 , Cheapside, London,
December \(\%\), at half-past \(120^{\circ}\) Clock.
a magnificent consignment of cattleyas FROM A NEW DISTRICT.
Arrived in the most perfect condition
The Collector writes:-"The plants I am now sending you are in three distinct varieties, and not any more will be sent, being very scarce; in fact, the district is cleared. These should not be confounded with the ordinary Cattleya of Caracas. The varieties are extraordinarily fine, with large flowers, varying from dark velvet to most brilliant crimson; the labellum, of magenta, is richly striped with orange
These plants were collected on Cool High Mountains at an
altitude of 1750 feet, and with them came
4 plants cattleya reineckiana, true:
and 3 large plants Catrleya wagnerii, true;
also a quantity of picked plants of ONCIDIUM PAPILIO MAJUs.
into Europe.
Alao from a private Grower, 50 fine-grown plants of ODONbulbe on each plant. 100 , undowered, forf to five sPECTABILE.
About 1000 ONOIDIUM JONRSIANUM, few NEW BROMELIAS, NEW CACTUSES ; five plante of the famous CATTLEYA LUDDEMANNIANA, established twenty-five plants, unflowered, all in sheaths of Orchid called in ite native country Casco romano

On view morning of Sale, and Catalogues had.

\section*{Chesterfield.}
sale of the LRASEHOLD NURSERY and Glass Erec TroNs, in one lot as a going concern, and the sTOCK IN

MESSRS. PROTHEROE AND MORRIS are instructed by the Chesterfield Nurseries Company,
mited, to SELL, by AUCTION, on the Premises, The Ashate Limiter, to sELL, by AUCTION, on the Premises, The Ashate elisposed of by private contruct. the LEASEHOLD PROPFRTY in Ashgate Roadd about 10 Acres in extent, with 18 GREENwill be offered in suitable loter, the extensive OUTD following SEEY STOCK, also the contents of the Greenhour NUK prising Ferns, and a general assortment of Pot Plant MORticulars may be had of Memar. PROTAEROK ANI

\section*{WEDNESDAY NEXT.}

\section*{FRUIT TREES, ROSES, PLANTS.}

\(\mathrm{M}^{\mathrm{R}}\)R. J. C. STEVENS will SELL by AUCTION, at his Great Rooms. 38 , King Street, Corent Garden, W.C., on WEDNESDAY NEXT, December 4, at haif past 12 o'Clock precisely-
100 Well-grown Pyra TREES.
800 Stindard, Half-Standard, and Dwarf Roses, from Germany
An Importation of Shrubs and Evergreens, Flower10,000 Jily of the Valley Crowns, 5000 Spiræas,

A Surplus Stock of Ornamental Shrubs and Trees, great Variety of Lilums, 1300 Hemerocallis, ANEMONES

\author{
On view morning of Sale, and Catalogues had.
}

Monday, Tuesday, Wednesday, and Saturday Next

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PRIMULA FIMBRIATA RUBRA SUPERBISSIMA.
This grand new Primula may be described as the red counterpart of P. alba magnifica,
The fringing of the extra large bold flowers-which are of great sabstance-isof the same hosy character as in P. alba magnifica, and which distinguishes that variety from all others; while the colour is that of the best type of the ordinary "rubra."

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WIERII LACINATUM 10 to 14 feet
NEGUNDO VARIEGATA, Standards, 8 to 10 feet
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All our Limes are the beet red-twigzed variety.
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On, Scarlet American, 12 to 14 feet
PO'PLAR CANADENSIS AOVA (the true variety), 12 to 16 ft . SICAMORE, Common, 12 to 17 feet.
THOORNS Double Pint 8
Pail.
Double White, 8 to 10 feet.
WEEPING TREES.
BEECH, Weepiog. Pyramids, and Standards, 8 to 12 feet. BIBCH ceping. Purple, Pyramids, and Standards, 7 to 12 feet. RBCH, Youog's Weoping, Pyramids, and Standards, 8 to

Cut-leaf Weep
Cut-leaf Werping, Pyramids, and Standards, 10 to 12 ft . KLMS, Wesping. Pyramids, and Standards, 7 to 14 feet LARCH, Weeplag, Pyramide, 8 to 10 feet.

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WITROUT ANY RESERVE
For AMATEURS and THE TRADE.
SWAINSON'S TRUE OLD LABIATA,

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RED AND WHITE UNRIVALLED TYPE.
100 NEW HYBRID ORCEIDS,
NEW CYPRIPEDIUMS,
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UNFLOWERED HYBRIDS,
NEW LRELIAS, WHITE LELIAS,
NEW HYBRID LELIO-CATTLEYAS,
with PARENTAGES GUARANTEED.
NEW IMPORTATIONS OF -
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NEW GUINEA ORCEIDS,
EAST INDIAN ORCHIDS,
VANDA COERULEA, in grand order.
MEXICAN ORCEIDS,
LIELIA TENEBROSA, SANDER'S Type, found growing with
CATTLEYA WARNERII, the fineat type. These plants, without doubt, contain among them the rare and beantiful hybrid Lælio-Cattleyas, GOTTOIANA and ALBANENSE.
All the plants offered are in wonderfal order, and a more varied and remarkable lot we have never seen.

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BOTANICAL ORCHIDS, various, 10 in a lot. OYPRIPEDES and DENDROBES FROM ANNAM.

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IT IS SWAINSON'S GENUINE OLD TYPE, the best and only true unrivalled, and gives White and Red Flowera, indesoribably brilliant, and of the most perfect form.

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\section*{Messra. \\ PROTHEROE \& MORRIS, \\ \(67 \& 68\), CHEAPSIDE, LONDON, E.C.,}

ON FRIDAY, DECEMBER I3, 1895.


THE
Gardenters Clivonidle.

\author{
SATURDAY, NOVEMBER 30, 1895.
}

FERNS IN POTS.

AN enquiry was made by a correspondent "C. B. C." wo long ago as last June, as to whether any British speoies of Ferns are grown in pots, and a auggestion that a further deacription would be of interest. I would, in the first plaoe, refer him to the view of my fernery, whioh appeared in thene pages (Aug. 27, 1802), together with come details whioh he may find of value. As regards potoulture or otherwise, mont of the plant are in pots, and only a few actually in the soil. The reason for this is that in practioe Ferns planted in the soil under the favourable conditions induced by a covering of glam, mpeedily interfere with one anotber as they develop, and form a jangle in which the individual beanty of each plant is altogether marred or hidden. If in pots, on the other hand, not only is the fresedom of growth somewhat checked, but it is quite easy to shift and readjust from time to time as the need for greater space arises. Another advantage is that in the winter, when the deciduous Fern are down, the still presentable evergreen ones oan be rearranged, 10 as to maintain a good effect while, were they in the soil itself, abifting at that time would be detrimental. To obviate the unpicturesque appearance of ordinary pots, I use a number of rustic ones of various forms, and mix these and all others, as far as possible, with burrs. In fact, the plan of my fernery is all rockwork, and instoad of planting the Ferne alone in the nooks and orannies oreated for them, I insert the pots as well. The fernery is somewhat oblong, 18 by 14 , one end being formed by the wall of the dwelling-house containing the diningroom window, and the opposite end by a very roughly-built burr wall. As an mmusing instance of the British workman's peonliarities, I may mention that, having provided so many loads of burrs for the bricklayers for this wall, I had oocasion to be absent for a few days, and on my return, found a plain ordinary brick wall ereoted, it being, as I was told, "impossible to build a wall with stuff like that supplied." I made them pull it down, and called in an intelligent blacksmith, who undertook the job, and did it splendidly. Upon this wall there are fired aeveral large cork pockets, oonsisting merely of large curved pieaes of oork wired stroagly together with oopper wire to the requisite size and shape, and then tied by same means to stout nails and hook driven into the wall. Thene reoeptacles are filled with soil, and not only hold plants as pots would do, but also socommodate a number whioh were inserted as seedlings into holes made through the oork here, there, and yonder. Sundry flat-sided rustic pots are also hung wherever they can he accommodated, no that the wall is fairly covered with foliage. The roof at this end, being boarded over for ahout

18 inches or so, has the effeot of drawing the plants a little, and making them deoumbent instead of upright, with remarkably good effeot. As few British Ferns are naturally decumbent, the highest wall-pooket of all was originally devoted to a Woodwardia radioans, the fronds of which drooped nearly to the ground, and were quite 7 feet long, until a specially severe winter killed it. At the foot of this wall is a low rookery, except in the centre, where a sunken petroleum-barrel forms a rockfringed pool, into whioh the rain-water from the roof is drained by two underground pipes. This rockwork extends round three sides of the house, and is about 18 inohes high, next a 2 -foot tiled path (porous red-and-white tiles), which runs round a oentral rockery of oblong shape, and built up of fairly bold burrs. The chinks and crevices in the whole of this rockwork are filled with self-sown seedlings of various species, Asplenium Trichomanes especially. Scolopendriums appear in any quantity, and have conslantly to be weeded out, common-or nearly common-onel being too often the intruders. Of specimen plants only two are really planted in this central mound; the King of the Male Ferns, with a fine trunk, and a crown of fronds, measuring 4 feet 11 inches from the soil to the tips; and the Viotoria Lady Fern, a bit of the original, which is no less than 3 feet 6 inohes long, being a single orown, with a distinct trunk. The side-wall to the left is really the garden wall, sarmounted by a wooden one carrying the roof; the opposite wall is red brick, and of the same height, 7 feet, so that there is no side-light whatever. Along the garden wall is ereoted a long slate trough, oomposed of roof-slates, supported at their lower edges on stout nails driven into the wall, and from the upper edges suspended by stout copper-wire attached to hooks driven into the woodwork. This trough, which is well drained, accommodates at the level of the eye, a considerable number of choioe small varieties of Asplenia, Soolopendriums, Crytopteris, and other dwarf Ferns; while from its position it practically does not interfere at all with larger Ferns growing in pots on the rockery beneath. This is really a good idea where space is limited, and indeed where it is not it has a great advantage in affording a habitat for wall and dwarf Ferns at a most convenient level for their examination.

Wherever convenient, flat-backed rustio pots are hang over this trough on hooks and nails in the woodwork, which is painted chocolate, to harmonise with the green. The brick wall on the other aide is largely marked by oork and slate pockets and pots, while a slate shelf just below the roof housen a number of Polypody varieties in pans.
Next the dwelling-house, oonsiderations of damp prevented the use of rookwork, and in one corner a Wardian oase forms a congenial home for several varieties of Trichomanes radicans and Hymenophyllums, while Todea pellucida, T. superba, and T. so grandipinnala sapports the foreign element in conjanotion with T. reniforme. A series of shelves ap to the window level cooupies the rest of the apaoe at this end, and here are a few of the crême de la crême of British Fern wociety, at the head of whioh I must be permitted to place an enormous plant of Athyrium fo-f. plumosum Drueryii, the queen of a section of which I am glad to learn your correspondent poscesser an admired representative. Well may his lady foliss compare these Lady Forns with Male Ferns to the diaparagement of the latter, bat I
fear they muat thank the prophetio instinet of
old botanists rather than Dame Nature for the imputation of the sex, though really the existing varreties show that for diversity of fashion and delioacy of taste no imputation could be more appropriate. In one of the writer's latest finds, indeed, A. f.-f. revolvens, we have actually the "lady" in ringlete.

Although mere size cannot be deemed a special element of beanty, yet since it is usually associated in Ferns with greater development of the oharacteristio features, the following aotual dimensions of some fronds in my fernery may be of interest:-Lastrea f. m. cristata, 3 feet 11 inches, plas a 12 -inoh trank; Athyrium fo-f. Viotoriæ, 3 feet 6 inches; Polystiohum aculeatum pulcherrimum, 3 feet 6 inches; Athyrium f.-f. percristatum (Cousens), 3 feet 3 inches; A. f.-f. plumosum Axminster, 3 feet 7 inches; A. f.-f. plumosum Druergii, 3 feet 6 inohes long by 1 foot 8 inches wide, the pinnæ measuring 10 inches long by fully 5 inohes wide. Chas. T. Druery, F.L.S., F.R H.S.

\section*{New or Noteworthy Plants.}

\section*{NEPHRODIUM (EUNEPHRODIUM) DEJECTUM, Jenn., n. sp.*}

A fine robust apecies, of the size and habit of tetragonam and Leprieari of the Lastrea group, bat of very different general charactera, maiked particularly by the distant tharply-deflected pinver of the lower half of the fronde, atramineoue vaccular parta, and atriation of both aurfaces caused by the close raized veins, the lowest pair of which on one or both sides of the midrib unite together at the ends, forming an elongated loop, an in Pleocnemia. From the patent united lobes at the top of the froade the pinne gradually dellex and widen apart downwards to the base where the distance reaches 4 to 5 incher. G. S. Jenman, Demerara, October 18, 1895.

\section*{Orohid Notes and Gleanings.}

\section*{CatTleya bowringiana.}

We have now in flower and bud four plants of the above, the largeat growing in an 8 inch pot has three opikes, with thirteen, ten, and eight flowers on them ; the other three are growing in 6 -inch pote, the one hav two apikes with nixteen and eight flowers; the other two apikes with nine and four flowers, and the other one spike with fi'teen flowers. I should be glad if you or any of your correapondents will kindly any what is the greatest number of flowers on a spike they know of on this apecies of Cattleya. W. Dawes, Little Vess Gardens, shrewshury.

\section*{Ter Specirs of Dichion.}

Diacrium (Epidendrum) bicornutum, Hooke, and Diacrium (Epidendrum) indivisum, Bradf. MSS., are Ttill common in Trinidad, although the yearly export by collectore has diminished the appply to a considerable extent. D. bicornutam is found almost excluaively on the seashore, where it growe on rocks and the branches of trees well exposed to the breezs.
*ephrodium (Euenphrodium) dejectum, Jenn., n. sp.-8tipites strong, erect, subquadrate, stramineous, slightly puberulou, channelled, If to \(2 \frac{3}{3}\) feet long; fronds erect, pinnate, subcoriscoous, dark green paler beneath, striated, 2 to 3 feet long, 10 to 15 inches wide, the acuminate apex pinnatifid, the base very slightly reduced; rachis strong, and with the midribs stramineous and channelled ; pinnse truncate. sesoile, subproximate, and apreading in the upper half, distant, deflered, and shortly and spreading in the upper half, distant, deflezed, 8 and shortheate at the base in the lower, 6 inches stipitate and subcuneate at the base in the lower, 6 to 8 inches
long, \(1 \frac{1}{3}\) inch wide, tapering to a finally acuminate entire point 1 inch long, cut a third to half-way to the midrib into broadly rounded oblique or anblalcate open loben, \(\frac{3}{3}\) isch wide, with anrrow sinus between, and subcrenulate or even margins; veins conspicuous on both surfaces, close, simple, curved, ten to fitteen to a side all fertile, the lowest three to five oppoate pairs, uniting and running together to the sinus with a streak between, and with the costee. grey, puberulous beneath; sori emall, medial or nearer the rib, reaching from the conta to the apez of the lobes; involucres emall. grey, puberulour, -Guiana: in the region of Malali, Demerarn Hirer, frequent in moist situatione.

It forme at times magnificent clumpl, which ur seen to advantage when in flower, in well-protected positions. A clump of this class was well fogm in the Gardeners' Chronicle, p. 337, vol. xni, 1894. This figare was engraved from a photogriph by F. Morin, Esq, of Port. of-Spaip, from a picture of a plant in the garden of a suburben villa belonging to Mra. Kavanagh. We have had nimilar clumps in flower near the office of the gardene from February to May, where they to simply hang up attached to the blocks of mod in they were cut from seaside trees, having no compon, banket, or other sapport of any kind. The attention they receive is to eecure them against the stecto of insects, cockroaches, \&ce., and to give an occuional watering in dry weather. They are fally expoud vertically, but are aheltered on all oider by bultaizg and treen.
The second apecies, D. indivienm, is one whith it confined almost exclunively to the inland ditrieth It differs from the preceding in being of muth amaller aize, and by having an ondivided lip whech in quite white, and not apotted as in D. bicornatam, and the pseado-bulbs and leaves are alioo much smaller. An expanded flower of D. bicornatm, which was taken at hazard from a clomp, menten \(2 \frac{1}{4}\) inchea in breadth, while another of \(D\). indivinm measures only \(1 \frac{1}{3}\) inches in the ame diameter. \(D\). indivisum is more amenable to caltivation that in larger brother, and maken an exceedingly pruty plant when well grown. Both plants are vay impatient of moistare, and when entablisbed mill atand drought almost with impunity. Donbte bero bsen expressed as to the apecific value of the namo of \(D\). indivisum, but to the field botanist who in converanat with the plants in their homes, the chanctera are clearly marked, and no intermediato form have as yet been aeen. It is true that the latter plant is (as Grisebach aays) nearly allied, bat th difference in form of the lip, ite habit, and the colom of the preado bulbs, as well an its constant habitist in the interior woods, would appear to bear ont 1 legitimate claim to apecific diatinction.
In connection with the growth of Orchids, it he been noticed that the presence of ants is apparestly necesaary to their maintaining a healthy condition bat whether this is in reality due to some action \(\alpha\) the ant itself, or to nome indirect canae, has not fis been proved, and inventigations are needed to tor what is the real influence the ant has apon \({ }^{50}\) health of the plant. It has been suggested thas the presence of atinging anter acts as a protection io the planta, but I am inclined to think from recess innow tigations that the benefits the ante confer of to plant are thone of providing it with the mycelias d a fungus to cover its roots, which organism anab/n it to take up food which would be othernite ur attainable. It may be ahown that the anta at an protectors to the plants, as well as providigg ther with a means of obtaining nutriment, bat it il almost certain that the fangus which grown in wis material they a ccamulate around the roots plasi 1 much more important part by providiag the pladid with food material. Bulletin of Trimidad Duta Garden, October, 1895.
\(\mathrm{Mr}_{\mathrm{i}}\) Godseff's Epidendrdu (Epidgspluya G00.
This is one of the giante amonget the Epidestan the plant itaelf being 2 to 3 feet in heighc, of the more as it grows on rocks and tree tranks in in native wild. The pseudo-balbe are 4 to 6 inchen length, terminated by 2 to 3 strap-shaped, obi'q. pointed, and very leathery leaver. The flower ity a branched at its extremity, and as thick as culma of a alender Bamboo (any, Thamocesam Falconeri) below. The flowers themelves are bur 2 inches in diameter; the prevailing colour bew olive or cinnamon on sepals and petala alite, three-lobed lip being white with parple linef alloned diak. The sepala and petals are incarred, holloms out or apoon-thaped, and marked with faiat lians nerves. The sepals outside are pale fawn colo adm having a faw acattered brown dota. an intef
generally, so this is a very robut and
specier, the flowern being full and of fine form, and their fragrance in the morning is very delicious, reminding one of a mixture of tropical fruits. The plant is very remarkable when growing, on account of its size, and it thrives in a warm moist house when growing with plenty of water at it roots. The plant is now flowering in the Botanical Garden of Trinity College, Dablin. The apecies is named in compliment to Mr. Godseff, who in well known an the manager of the Sanderian collection of Urchids, \&c., at St. Albant. F. W. B. [E. Cappartianum is, we believe, a aynonym of this plant. Eiv.]

Cxphiprdius \(\times\) belligmbut, malformed.
1 As bearing on our remarke at \(p .495\), October 26 , and previously, T. W. Swinbarne, Esq。, Corndean

\section*{TRICHOPILIA BREVIS.}

At the meeting of the Orchid Committee of the Royal Horticultaral Society, Nov. 12, this pretty specier, which was exhibited by Mesars. F. Sander \& Coo, was duly noticed in our columns, and we now give an illustration of the plant (fig. 105). The species appears to be of the section of Trichopilia known in gardens as Heleis, and of which the previously koown species Trichopilia (Heleia) eaguinoleata is well illustrated in the Botanioal Magavine, t. 7281.

Trichopilia brevis is a plant of neat habit of growth. It flowers have the sepals and petals of an Indian-yellow colour, barred with chestnut-brown. The ample labellum pare white, with ef purple marks at the base. It thriven best when grown in a moist intermediate-house, such at mits Miltonis Roezlii, Mittonie vexillaria, and the plante aenally ansociated with them.
average crop, Now England being eapecially deficient ; while in the contral-west the crop in the largent over grown. The aseon has been one of contradictions, new conditions contantly ariaing of anficient im: portance to vitiate preconceived ideas.

May frouta were followed by anch weather as operated to minimise their importance. Drought, growing aerious in June and July, was relieved in Auguat. Oa September 1 the crop appeared virtaally made, and in extent there whe every indication that it was record-breaking. The final output of marketable Applet is large, but it is not the burdensome crop that seemed certain a short timeago.

Dry weather, hot wind and locally severe atorms during Septembar made great changes in the proupect for winter fruit. Tho "windfall" hat been aur-


Fig. 105.-trichopilia brevis flowegs of an indian-yrllow colour, babrrd wita chistnut; Ifp wilte, WITH PURPLB MAREINGS AT TER BASE,

Hall, Winchcombe, Cheltenhaw, writen:-"I am sending jou a flower of Cypripedium nelligerum, taken from a plant which invariably throws ap a similarly deformed bloom as a preliminary, and after that is over, it ands up a apike of good flowera. I have now one with a two-fowered apike following a deformed flower."
The flower is a very singular one. The sepais and petale are of the anal form, but the labellom is inside oat. The part which in the normal flower is at the beck and reating on the lower sepale, being in front, and the opening in the pouch, with the sides turned out instead of in, is at the back. It in a very singular freak, and it bears out our conclasions, formerly expressed, as to the conatancy of abnormal flowers in some plante.

\section*{THE APPLE CROP OF 1895.}

We learn from the American Agriculturist that the estimated commercial crop of Apples of the United States for the present wemon is one of the largest in recent years, and will yield probably \(66,000,000\) buthelt, ahowing an incresse over the sverage prodac. tion of about \(8,600,000\) busbels. When prices are high, at they were lat year, a lot of fruit not umally included in the commercial crop, find ite way into the market. While ordinarily this would never appear, it serves the parpose of ultimately wolling the totalr.
The dintribution of the crop of the preseat year is anid to be peculiar, the greatent Apple-growing districts eant of the Alleghanien showing lean than an
priaingly large, and the ill effect of the hot weather is becoming further apparent in marked difficelty in ascaring frult of perfees keeping quality. Wapecially is this true in couthern Iulsofa, and in portions of Missouri, while in heary-laden orcharde of Miseourl and enstern Kapsas and Nobraka the extent of lowe from high wind can only be appreciated by personal inspection of orchard.

It if difficalt to sccarately extimate the total crop of Apples in barrels, because there has nover been any accurate consus determination of the aise of any given crop. The cenaus of 1890 andertook to give sach a measure, bet the work was very falty from nnintentional omineions. Taking that result, however, as a basis, and as reprementing what might be called the marketable crop an dintinguinhed from the
total crop (including farm consumption, cider atock, and fruit fed to animald, or allowed to rot on the ground), it would seem that the crop this year is about 16 per cent. larger than that of 1889 , and larger than that of last year by about the ame measure.

The crop in the principal States of America in 1889 as reported by the censut, in 1894 as determined by market movement, and in 1895 as eatimated by the American Agriculturist, the only anthority placing auch detailed entimate on record, il preaented in the following atatement:-


An examination of thim table showe that the New Hampshire crop this year is little more than half that of 1894, and nmaller than in 1889. In New York and Pennaglvania it is a third larger than last year, and double that of 1889. The Ohio crop in two and a quarter time larger than last year, while the Michigan crop is less than two-thirds as large as in 1894. The mont remarkable gaint over laat year's production are noted in Indiana, Illinois, and Misnouri-three timen a large in the firat, and nearly double in the latter two. The total crop in these three Staten, however, only slightly exceeds their production in 1889.

\section*{The Canadian Situation.}

Canada, as a whole, has not been favoured with an abundant Apple crop for several yearr, although exceptional localities have borne well. This is true regarding the 1895 crop, with a material shortage in much of Ontario. Owing to the severe frosta about the time fruit-trees were in bloom, many Lake Erie and Haron counties auffered, and Apple-shippert from Toronto wentward, with ponible exceptions of a narrow strip clone to the water's edge and around Niagara, will have lens to do this autuman and winter, the crop being required for home consumption. This important section, which usually has a liberal surplan for shipment, has already marketed a considerable part of their available crop. Down the St. Lawrence river Apples are not grown so largely for export purporen, and will this year provide little. It in certain that the big crop in the United Stater will preclude the movement of any conaiderab'e quantity of Canadian fruit acrons the border, even from favoured sections, and the surplas from Lake Ontario counties and further east will seek an outlet abrond. In the Annapolis ralley, the Apple-growing wection of Nova Scotia, a fairly good crop has been harvented, ipcluding both autumn and winter varietien, the latter being fine in quality, and adapted to the export trade. Early ahipmenta from that province, however, shared no better fate than did thove from the States, as England was well mupplied with home-grown and continental fruit. Conaiderable quantities of Nova Scotian Apples are drifting into Boston, partly on commistion, and providing the market is right, may eventually be reexported to England.

\footnotetext{
The Output fon Ambitcan Subplut on Apples,
Seeking for a place to dimpone of the large reservee of mound winter frait, the fact in doveloped that the Apple crop, taking the world at large, is a full one. Lat year the deficioncy in many of the American
}

Staten abworbed much of the surplun of those where the yield was liberal.
But this year the crop in more evenly distributed, and it in an exception rather than the rule to find a State with a positive deficiency.
Tarning to the output on export account, thil may amount to more an the seamon wear away. England is about the only foreign customer that America has. Up to late autumn England is aupplied with fruit from the liberal home yields, and from the continent of Earope, including Holland and Belgiam, which have very large cropa ; France, which turned off fair quantities; Germany and Italy with at leant sufficient crops of Apples of their own to make it improbable they will need to import many, and may possibly wend a few to the United Kingdom, an they do unually. This fruit, however, is autumn atock, and once out of the way should enable American exportern to ship more freely to England. Lateat advices report an increaved interent in leading English and Scotch marketa, with an ontlook for better figures. Showing the draft made apon the various surplas countries for Britiah consumption is the following table of-
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{English Imports of Apples in bushels in 1894.} \\
\hline United States & ... & ... & 1,441,657 \\
\hline Germany & ... & -. & 50,492 \\
\hline Holland . & .. & ... & 504740 \\
\hline Bolgium ... & ... & ... & 1,160 923 \\
\hline France & ... & ... & 509,537 \\
\hline Portagal ... & ... & ... & 64,567 \\
\hline Italy & ... & ... & 7.775 \\
\hline Channel Islande... & ... & ... & 7.199 \\
\hline Australasia & & & 135,962 \\
\hline Canada & - & ... & 1,081 859 \\
\hline Other Countriey... & ... & ... & 3.958 \\
\hline
\end{tabular}

\section*{Total 4968,669}

There is just now a aevere sifting of quality, and the range of prices is very wide. Standard varieties of winter fruit, wuch at Baldwin, Greening, Spy, Ben Davis, \&c., are going rapidly into cold atorage, nome of the best posted and largent grower adviaing not to accept present quotations. Thir, too, in apite of the fact that vast quantities of soft etock have either been sold for cider parposes at from 5 to 10 cent per bashel, or elee permitted to rot on the ground. The enormour quantitie of windwalle, cider Apples, poor and gnarly fruit generally, out of the way, the market is expected to clear up. Large as the crop in, it is certainly much leas than seemed assured before the trees began to drop so badly. J. J. Willis, Harpenden.

\section*{Paris}

\section*{MICROSPATHA GUINEENSIS.}

Cultivators know this dwayf Aroid beat under the name of Nephthytim liberics (N. E. Brown, in Gardeners' Chronicle, June 18, 1881, p. 790). We mention it now for the ake of calling attention to the profanion in which the orange-coloured berrien are produced. These are borne in such numbers that the plant is at this seamon very ornamental. The berries are clastered, each about the size and form of a mall Olive, and of a bright yellow or orange colour. At the Jardin den Plantes we recently observed the use made of this plant for ornamental purposer.

\section*{Amphitecha nigripres.*}

This bighly curious Bignoniad or Crescentiad has lately been in flower in the Paria Jardin de Planter. It has an orect atem, oblanceolate glabrous entire leaves, and bears tuft of yellowish-green flower: from the old wood. Each flower in about an inch long, with a thort calyx, dividing into two boatshaped aegmenta, an irregalar tubular corolla, contracted in the middle, dilated on one side below the fous-five parted limb.
" Baillon in Revie Horticole (18\%), p. 484, fig. 89, as Crue centis; see aloo Miers in Trans. Linn. Soc., \(\mathbf{x x Y i o}\) (1888), 183,

Camptosema erythroniomes.*
A handsome tove ahrub, with pinnato folings ovate lanceolate segments, with clusters of row-lilu flower near the apex of the branchen. The individual flowern are something leas than an inch long comprensed, the atandard winga and keel nearly of the same length. The plant which is in bloom is Jardin den Plantes differs somewhat from the phan dencribed and figured by Bentham.

\section*{Idria columparia. \(\dagger\)}

This plant in the Kew Index it referred mith mark of doubt to Fouquiera spinota (Inmy in Emory, Notes of a Military Reconnoissamo 147,, , 8 , Mexico, 1848). The plant in the Jardin da Plamé is highly curious, consisting of a stont, thick, conim stem, 2 to 3 feet high, and as much throughtw base, giving off slender spreading branchen near tha top, and provided with amall-stalked ovato acta leaves. It is a native of Lower Californian Tho figure of Idria cited hat a tall, nearly mbrandob, columnar stem, with atalked apikes of yellow fomen near the nummit. The plant in the Paris guden was not in flower, \(o\) that its identity with Kolloges plant is uncertain. In any way it in highy remarkable, M. T. M.

\section*{HARDY PLANTS AT COLLOONEY.}

Cabyopteris mastacanthus,-This pretty fowerig uhrub (see Gardeners' Chronicle, February 2, 188\%, fig. 149), has flowered at thim place for the firt tim this year. It has proved quite hardy, having withe atood the fromte of last winter under the alight protection afforded by some Spruce brancher; and I hope now that it in well eatablished it will bloom at an earlier part of the autumn. The fiowern come in small clusters from the axils of the lateral ahook and are of a deep lavender colour.

\section*{Clerodendron trichotomom.}

This plant flowered here this autumn, juet previous to the tharp fronts setting in, in October. It in in intereating plant where it thrives, and the flowen come early; and when our plant are well eatebe lished, they may do better in this respect. The young wood is of a noft nature, but it takes no ham, except, perhaps, an odd shoot or two will die buck during a severe winter. It is planted in a border and close to a wall ; and a plant of Abelia rapestin tanding near it flowered profuely this antumn.

\section*{Tupa Fevillili.}

This made a grand ahow in the herbaceons border, with it beatiful pike of red Salvia-like flown, doring the summer and autuma. The plant ancend in good wandy loam, and is benefited by a few applio cations of manure-water at the root when \(m\) ll eatablimhed. Increame is by division of the rooth and from seed.

Hyphricum reptans.
For covering a slope or the rockery, whete a moderate depth of andy loam can be afforidd, this is one of the prettient subjects I know of; and is hardy, very floriferous, and eanily raised from what I have grown the plant in an ordinary border wh raised mounds of sandy soil, and even in this my is attractive. A few atones placed ander the trailing shoots keep them clean and free from grit.

\section*{H. Moserianum \(x\).}

This is a choice abject, very mitable for a roden or border, lating in flower a long period of tiw It is an erect-growing hardy variety.

\section*{Lamiur aurbum}

Is a uteful plant for covering a flat aurface, wh as it name implien, it is a yellow-leaved plant in thought highly of here, and is a capital gromive Work plant where Dutch bal

\section*{The plant liken full exposure.}

\section*{Tiarella cordifolia}

In an old favourite, and one of the best plants covering a large area in a whort apuce of time, ad
* Bentham in Martius' FLora Brasiliensis, xTo, to \(155^{\circ}\).

Kellogg in Proce Califo Acad, ii. (1883), 31, an 1 me Kenersio, to 1204.
it will thrive in almost any position or aapect, but the better it is treated the more it true character is developed. It is a free-flowering aubject, with thick atolona, and cordate, acutely-lobed leaves, hairy above, and pabeacent beneath. It ia propagated by bits of the atolons being taken in early apring, and planted just beneath the soil.

\section*{Cornus canadensis.}

We were unable to acceed with this plant when planted in a loam and mand, bat find that it will grow freely in a mixtare of aphagnam and peat. Its pretty star-shaped flowers appeared on 0 atober 27 , and continued for some time in good condition. The beanty of the ahrab is enhanced by its leaven, which esanme a bright red colour on the appromeh of autamn.

Polygondm Brenonis.
This is a handsome plant, good all the year round a very free bloomer, and very auitable for planting on the ledges of the rockery, and even in a border.

\section*{Drfas octopetala.}

When planted near to a flat and nomewhat sloping alab of rock, having a rough aurface, this will in time clothe it with a network of growthr, which flower freely, and when pasaing out of flower the atalks are armounted for some time with feathery need vessels.

\section*{Hydrangea scandris.}

We find thin a denirable trailing plant, anitable for covering a ragged atone or boulder, effective when in bloom, and also during the autamn, when the leaver aname a pale yellow tint. It thrives as well on the shady side of the rockery as on the sonth nide. H. May, Markree Castle Gardens, Callooney, Sligo.
the new zealand ingtitute.-In the Trans. actions of the New Zoaland Institute (1814), Mr. T. Kirl pablishes nome syatematic description oo New Forma of Culmisia, Ravision of the New \(Z\)-aland Gentians, N \(\in\) w \% saland species of Gannera, some planta from the Upper Waimakariri, New Graseas from Macquarie Island, and Now Z aland apecies of Colobanthur.

\section*{NOTES FROM CAMBRIDGE Botanic Garden. \\ (Consinu:d from p. 518.)}

Dipladenia boliviensis on a rafter in the plant atove, and the Yam in fruit in the same house, prenented a striking contrat, and are plante too seldom ased for effect on the roofa of glans-housen. Some fine specimens of Ixoras, very notable among them being a fine piece of 1 . Bandhuca, of a very deep acarlet, light up the plantatove with fine glowing tints on the eve of the November fog*

Pellionia Dateauanata,
The semi-auccalent stems, peculiar foliage, and the contrast in colour, nize, form, between the male and female flowers, give this plant mont remarkable appearance. It makes, in fact, a aveful and novel addition to our stove creepers.

\section*{Dichorisandra thyrsiflora,}
is one of the best of this unefal order of showy and eacily-grown stove plants, flowering freely under good caltivation throughout the summer and autumn. The deep golden anthers bring ont to the best effect the rich dark blue of the flowers.

Crropegia Sandersoni and C. stapelieformis.
It is worth while for all lovers of netare to reat awhile in such Botanic Gardens an those of Dablin, Cambridge, Oxford, \&c., to have a half-hour's fellowship with some of the many curious and inatractive plants that are all too prone to be trodden under foot in our hot haste after mhown, decoration, and profite, in thene modern days of fever and excitement. Horticultare is fast losing its bigh character of the leinare cult, but carefal atudy of Ceropegias might do something to help us to regain it.
Ceropegias are eldom or never found in private gardena, they are of little or no use for button-holes, wreathe, dinner table decorations, or market flowera.

Ponibly few practical men know that the literal rendering of the name is a fountain of wax. And the design, form, and uses of then fountains are miracles of constructive denign and adaptations of means to ends. The whole structare of the flower neems designed to protect the atigma or orary from wet and the inroad of fies and other insects. Ceropegins are not ranked among fiy-catchers, though the atractare of the blossoma are so peonliar, that ahould any living thing get into the corolla it wonld atand bat a poor chance of getting out again, whether the fountain on the top or the tabe at the bottom were filled with honey or not. In some apecies, fach as C. Sandersoni, beantifally in bloom at the time of my visit, the five petale formsd a raised tent, supported on five open archos, that wind round the top of the bulgedoout portion of the tube; so that any living thing that geta into the well-lighted, carefully-guarded, life citadel of the Ceropegia has a raied palace on the roof with five windowe, each a quarter of an inch deep, to look out of - a tower of observation, or mayhap allurement, probably nnequalled among plante. The five potale diverge from a centre to a point in the centre, and the extremities overlap thene arches like ambrellas anfficiently far to render each flower waterproof. The colour of C. Sandersoni is a pale green, mottled and veined with a darker green, with a beantiful pecaliar translacid appearance. C. stapelixerormis is a parple-fowered amaller variety. Both these are greenhouse plants, and could be grown easily, where their flowers could be beat seen, climbing up or drooping down from a roof, pillar, or rafter.
C. elegens is, perhaps, best known; bat this being a native of India, need the warmth of a atove to do it jastice. This apecies has also purple flowers, and long hairs clothe certain portion of ita very carious flowern. All thene apecies and most others are climbing plants, requiring to be trained on rafters or trellisen. They are eanily propagated by cuttinga, or root, or stem, or bulb division, for the species that have bulbous roots.
To bloom them freely the tope nuwat be kept fairly thin, freely exposing them to light and air. They thrive best in a mistare of peat, leaf-mould, and and. One or more plante should be grown in every glasehoune, as few plante afford more iaterent and pleasure to families and etadenta than auch wax fountains or tent flowers an Ceropegia Sandersoni.

Gerbera Jamesoni.-Oa the occasion of a recent visit I was much pleased with nome specimens of this still rare and atriking plant. It weems it was firat introdaced from the Tranavaal by E 'hman, in 1878. It was sabequently found and sent home by Mr. Jamenon, whove name it now beare in the gold-field dietricts of Barberatown. Hitherto, its progress under cultivation has been rather slow. I do not remember, in fact, seeing this striking and beautifal plant in robust health and fall beauty anywhere else bat in the Cambridge Botanic Garden. (S8e Gardener' Chronicle, June 22, 1889, fig. 122, p. 773 )
Mr. Lynch, with his unall courtesy, supplied me with a few notes that must prove exceedingly uneful to others who would like to grow thin very ornamental plant to perfection. It is grown at Cambridge in the open air, bat it is not quite hardy nevertheless. Neither does the Gerbera take kindly to pot caltare. Hagging the south onde of the nice uneful new range of glase in the Cambridge Butanic Garden, may be found several hardy bulbs and other plants that have the full beneits of all our solar heat, and considerable belp from the hot walle of the plant-atoves and Fern-houses behind. Amonget more of auch plante is a fine group of Opuntian, most of which survived the zero frote of hat February. I do not any that anch tempting food for frost wholly escafed, but a fine group still aurvizea, protected with a temporary frame of glase in winter, and mayhap, bat I am not aure of the latter, a mast over the glase.
It was a happy thought of Mr. Lynch's to plant the Tranuraal Gerbera behind the Opantin, and clowe
to the warm wall behind it; and here it may be said to grow like a wead, blooming peraintently from April 1 to the middle or end of October. Mr. Lyach thinke the Gerbera and Opantias mutually protect and ansist each other. Both have a glact covering to keop them dry rathor than warm in winter. He aleo adde, at already ateled, it does ac well here because it is plated againat a wall, behind which are four hot-water pipee.
The general appenrace of the plent is momething like an enormous Dandelion, with large flameecarlet Daiay-like flowers, atanding ap atrongly on flower atem averaging from 1 foot to 18 inches or more in length. The provailing colour is a uniform flame-acarlet, bat the colour varios conaiderably from seedliage, some having a decided shade of salmon. The blooms alao vary very much in size, the blooms being freat in ennoy fine summer westher, some of them sbowing acarlet single Daisife, meanaring as much as it inches across. The peraistency of the blooms after catting is even more marvelloun than their perpetaal blooming from April to October inclusive.
In this genial home for this atriking plant, seeds are plentifully riponed by Mr. Lyuch, who kindly adde, that by mowing thene in a warm houe 30 soon as ripe the plante are ready for dietribution or planting out in the spriog; thowe who have aeen this plant in good form can hardly doubt that it is bound to have a brilliant fature in many gardens in ite preeent form, and may prove naefal to bybridiats. of Daities, Caryeanthemums, Dandelions, \&c. D. T. F.

\section*{FLORIST8' FLOWERS.}

\section*{CHRY'SANTHEMUM GOLDEN WEDDING.}

Manr complainte were made last season concerning the wearness of constitution in this variety, and the failure of the plant to flower satisfactorily I had not grown it, and determined to try it this seanon. I have found no difficulty whatever an regarde ite conatitution. The planta wore late when I received them, which account for the bud showing late, and the flowers are only now (Nov. 14) half expanded, but the plants are certainly healthy and atrong, I am very pleased with the flowern, which are of a rich golden-yellow colour, in that respect clonely remembling Jardin den Plantes. The petals are broad and of good sabstance, and I thall expect to see this variety come eventaally more to the front. W.H. Divers, Belvir Cautle Gardem, Grantham.

\section*{The Austoula}

The plante show a remarkable tendency to damp-oft in the late autumn, the outer leaver rapidy decaying and if thee ba not removed, frequently the main atem is apt to decay as well. The alpine varietiea are equally liable to be thu injared, and these effecte are not confined to plant grown under glan, but are seen in the plants in the rock-garden. When removing decaying leaver, no trace of decay should be left on the plants. Many of the show varietien are very scarce, and duplicaten cannot be obtained, and it is therefore advisable to avoid lones. The plants should be arranged in a certain kind of order, beginsing, nay, with the green-edged flowers, and following on with grey-edge, whiteedge, and selfs, this being the order in which floriats have always anranged them, and a carefal fancier places his choicer apecimene in the bent ponition he han for them, and where they are ander his eye, and eanily come-at-eble. The plats thould at this meason be as near at poseible to the glase, bat thould not touch it. In fine weather the lights should be removed daring the day, and replaced in the evening as aoon as dew in noticed on the leaven of the plants. In foggy weather let the lighte be kept clove. After foggy weather the glas, if the garden is auburbav, will be costed with a black oily sabatance, which must be wanhed off, bat the plant will not have uffered. The plant frames, Which have been in a shady position during the aummer, should be placed in an open position.

Watering mast be done with care, affording no water if a plant be not very dry, and always keep the leaves from being wetted when applying water.

\section*{Carmations and Picoters.}

Tho who have to deal with a large collection may not always be able to do this, that, and the other at the proper time-indeed, during the last two or three years I have been obliged to atep outaide the rules and regulations often laid down for myself and othera; but, as \& worthy man and good old florist used to asy, "What odde? you're aye learning something." And herein he was quite right. For instance, I have always been anxious to get the border Carnations planted out before the end of September, and yet I have had aplendid anccess from plants put out after the middle of November. I began this year to plant out the choice border Carnations about the middle of November, and an I write they look very promising. A little decayed manare will be spread over the surface as aoon as front sets in. I plant three of one wort together, and the clamps are 2 feet asunder, measuring from the centre of the three. Seedlings, again, ought to be planted out where they are to flower in June or Jaly, but this cannot always be done. I plant them 15 inches asander, but the ground was not available this year; therefore the plante were put out \(7 \frac{1}{3}\) inches asunder, and now, when the ground has been cleared, every alternate row is being removed, and the alternate plants in the rown, leaving the remainder at the regulation dintance, and filling up the rent of the borders. They were removed carefally with a masa of roote, and do not seem to have suffered in the least.
We have not yet finished up the potting of the lajers, although we began early in October, and one of the very bent northern growert has juat written me to any that he does not find his plants suffer in the least when he can get them potted before Christmas. This, of course, would depend a good deal on the voseon, for sharp fronta are not uncommon in Dacember, and they may alao last long ; atill, it is well to know that layers may be potted up, and plants may be set out in November, and atill ancceed admirably.
The plante early potted-up in framea require to be carefully gone over, all dead and decaying leaven removed, green-目y bruahed off, and the aurface of the soil atirred; weeds also will have appeared, and ahould be removed, placing the plants on a freshlyatirred surface of ashen or cocoa-fibre.
In some districts apot is troablenome, but if any plante show signs of boing injared by it, they should be removed from the frame into the greenhouse, Where it is not no likely to epread. The rant, as it is termed, is not affected by atmosphoric conditions, and mast not be played with, but the affected leaver cat off as soon as remarked, and the planta watched in case it might reappear. Cleanlineas is important in the frames, and greenlly must on no account be permitted to increase. It makes a and mess of the beautiful folinge.

\section*{Pinss.}

The hardy garden Pink in all ta beantifal varietien, is a plant which ahould be found in every garden. Many of the very choicest Carnations lack wcent, but the Pink never. I have read mont that the late Rev. George Jeans wrote upon the Pink under the signatare of "Iota," and he preferred the flower to the Carnation; and I once heard a leading forist declare at the luncheon after the Birmingham Carnation Show, that the Pink was certainly to be preferred to the Carnation. What we want is raisers of new varietien. The Carnation has plenty of worahippers and'produceri of new varieties, and we ought to get out of the atrict groove in Pinks as we have done in Carnations. There is too mach samenens in the laced Pinka, and it requires an expert and welleducated eye to distiaguish one from another.

We may in time get selfs of various colourn, and if mach can by obtained, the Piak will again become as popalar as it once was an a garden flower. My large plants for foreing are now well eatablinhed in 5 and 6 -inch pots in garden framen, For forcing, the laced
varieties are not as well adapted an self, as the flowers do not then come furnished with lacing, or even if grown in pots. The open air, no shading, and no glass protection of any kind, afford the mont perfect laced Pinks. The earliest of the plants may be pat into gentle heat forthwith, keeping them close to the roof-glasy, and taking care that they do not lack water at the root. Plants in the borders should be made secure after frosts by prensing the noil firmly about them; and if any of the leaves aro eaten by alugs, \&cc., hunt for the depredators, and kill them. Jas, Douglas.

\section*{Ter Hollyhock.}

There are evidences that the stately Holly hock is once more upon the plane of improvement. At flower-shows held in various parts during the past summer and early antumn, at which floriste' flowery play an important part, I have reen the Hollghock in better condition than usual, ahowing not only that it is better grown, but that there are better varietien. The dinease which caused the loss of so many fine varieties is not now so virulent as in former yearn, giving confidence to raisers of new varieties, so there is hope of the Holly hock becoming a garden favourite once more. At Saffron Walden, so long associated with the labours of Charles B. W. Chater, Mesarr. Webb \& Brand, the succesiors of the latter, are promoting a. Hollyhock revival with conspicuon anccess, and they have some of the old favourites of yeare ago, which encaped entire annihilation atill under caltivation, such as Alba superba, one of the beat white varieties ; Alfred Chater, clear rose; Amaranth, a new variety, of high quality, soft amaranth-pink, full, and of the beat form; Bijou, acarlet, tinted with buff; Carus Chater, crimson-scarlet, bright, and extra fine; Fire King, bright reddishcarmine, extra fine; Malberry Gem, a very dietinct variety, in colour a rich glowing Malberry ; Golden Drop, a fine self, yellow; Primrone Gem, woft primrose; \(N y m p h\), white, tinted wich delicate pink; and Walden King, one of the beat of the old varietien, deep crimson. It will thus bs aeen that the choicer named Hollyhocks of the present day exhibit a wide range of tint and combinations of coloar.
The propagation of the Hollyhock is a work of much interest, and to all appearance is most auccessfally performed by those who make the cultare of the plant a epecialty. Grafting is the most commonly followed method, and \(i t\) is performed by Mears. Webb \& Brand both in autama and apring, the autumn being the time most preferred, if good shoote are obtainable for the parpose, which is not almay the care, eapecially when the plants are allowed to aeed, the production of seed appearing to delay the patting forth of growthe from the roota which form the cions for grafting parposes. Grafting is done on to the roots of strong-growing eeedlinge. Badding may be saccensfully done during the summer months, mach in the way that Roses are budded on to the seedling Briar; bat it in hardly antisfactory, as it is found in experience that the badded shoots commence to flower to very low that they acarcely form a apike of any length.

The antumn-grafted plante are put into pote and placed in cold frames; they are kept clone for a time until growth appears, then air is given, and in this way plants are obtained for eending out in the spring.
Sseds of fine atrains of Hollghocks have been somewhat scarce for years past, but always in dumand. Some sow in January in heat, and the plants, if well cared for, grown on into aize and planted out in good ground, will fower in the autumn. The atrongeat and mont astiofactory planta are obtained when treated as biennials, the reeds aown in Jaly in the open ground, and transplanted in the autamn to flower the following summer; nach plants always produce larger bloome and finer apikes, and are better fitted to suatain the attacks of the disease than those raised from the winter nowing.

It may be added that aeed taken from any one variety will frequently come quite true to character,
and if not fally reprenentative of the variets, alanats
invariably of the ame tint of colour.
That Hollyhocks can be succesfully grom, and fine spikes produced daring the aummer month, in conclusively shown in the seed trial groment of Messry. Satton \& Sona, of Reading. The phant of put in deeply dug, well-manured ground, and ane fully watered and malched during hot drying mather the plants grow strong, tall, and atately, dereloping fine spikes, some of which being of very fue quality rival those ahown in days of yore. The Hollighoti not a difficalt plant to grow, but it is one that mat have good culture in order to succeed. \(B_{1}, D\)

\section*{Nurbery Notes,}

FISHER, SON, \& SIBRAY, HANDSWORTE, SHEFFIELD.
Ir was with feelings of relief that I left babind mo amoky Sheffield, and journeged out to the rilluat of Handaworth. Though so rural, Handeroth it within the city limits, and is readily acceuibo by several meana, and it would be a village of a ordinary character were it not for the extanine narneries of Mesurs. Fisher, Son, \& Sibray, Limiter, which formed the object of my vinit. On entaring the nurnories at the main gate, the firt house puad into was one with a large apan-roof, which has ban recently rebuilt, and is now intended for a home houne.

Orchids are particularly good, nevernal hown being devoted to their cult ure. Cattleyas and Latim bristling with sheaths, Dendrobiume, Cologyme Cypripediums, and Odontoglonsumi, were well reprow sented in all the best apecies and varieties. Them was a grand batch of Dendrobiums in 4 -irch poth some having as many as nine atrong gromth; wit those on wood blocks were equally fine.

Suspended from the roof of one of the honam me Nepent bes Hookeriana, N. Mastersiana, and inled most of the best apecien and varietien. Effdilind arranged on the atages beneath thene were Alowis Watconi, A. Sanderiana, A. Lowii, and others; tho a very fine plant of Cyanophyllum maggiifcurn, the moist air required by the Nepenthes exsecty nititus its needs. Crotons occapy a particularly well-lighted honse, and are given a very high and moint tampe ratare, and the growth and coloaring of the foling are simply aperb. Flamingo, Baron Jamed of Rothachild, Madame Chas. Heine, and Manngame were eapecially conspicuous. The cleanlinen wil vigour of these plante were remarkable.
Amonget other stove-plants the Dracerna, Frelire ris, continental varieties of folinged Begoniun, ul Amasonia panicea were all noticenble for their poil condition, an ware anch climbers an Allamanith Ariatolochiaa, Dipladenias, and the Staplumelid floribunda (Handsworth variety).
Both atove and gresnhouse Ferna receire mex attention; the following being a few of thon wadity of notice in the atove nection for their phimer form:-Davallia tenaifolia, Pcerin tricolor, Adinficial ouneatum variegatum, \(\mathbf{A}\), macrophyllum, na Lathami. Ia the greenhouse section, Toden Fruma T. pellacida, and grand maseer of the rith a the Fern (Trichomanes radicans), togethor midiana batch of the Venus Fly-trap (Dionaen Macipasi) id deserve pecial mention. A notable howe in large Palm-houne, which contains all the chi 10 㑕 species of Palma, ranging in height from 2 to 1 Underaeath thene, so as to economine appet, comb large quantity of Pancratium fragranah cuin Kontias, and other Palme sre raied from the and planged in cocoa-nat fibred with genill hell they soon make plants of a auitable aize for tw decoration. A large double span-roofed hone tains Palms, Arancaria Napoleon Bnamutin excelea, Dacrydiam Franklinii, \&cc. kept quite apart from the sale planta for deention purposes, the firm entering largely into thim bamber

Boavardiav, Azslea indica, Tea Rones, Groentivith and Japanees Rhododendrons, Cnnum, Bp

Camellias, \&c., were all the beat of their kind, Marguerite Carnationa were perfect, and it hat never fallen to my lot to see a finer show of bloom in all shades of colour. Of course, the are only flowered inaide for seeding parposem. Ssed sown early in the season will ensure plants in fall bloom in Jaly and Angust, many of which are almost equal to florist's varieties. Saveral houses are occapied by Lapagerias in different atages of growth, notably L. gigantea, L. alba, L. maculata, and the celebrated red variety, L. profun. These are all produced from layern from plants planted out in convenient borders for this eapecial parpose.

Four houses are set apart for the caltivation of flowerk and foliage for catting, and a very praiseworthy rule is rigidly enforced, viz, that no flowers, \&c, are to be cat in any other houses. Theis
of the Grecian variety, and nome large-leaved varietien not yet in commerce. Evergreens, wach at Aucubas, Prunus ceravas var, rotundifolia, vars. Intifolia and cancasica, are numbered by thousand. Owing to the Aucubar being liable to injary from front, it in the practice to transplant them in August, the object being to ripen the young growth.

Fruits.-Fruit trees cover some 60 acres; Peaches, Nectarines, Plum, Cherries, and Apricots, dwarf and fan-trained, were all very good; and of eapalier and pyramid-trained Peare, the atock is a very fine one. Standard Apples, Pears, Placos, and Dammone, wore all clean-grown capital trees. Particular attention, I was told, is paid to the aelection of atocks for budding and grafting, and where necessary, double-grafting is carried out to ensure fruitfulnest, examples of which may be observed in the plendid speclmone of Bit-

\section*{FLORICULTURE IN HANLEY.}

Tan ponibilities of bearatifying and decorating the tarroundingt of the dwellinge of the working claseet. and, indeed, those of more pretention domiciles, are shown by several working-men retident in IIsnley. A striking instance of what san be done in this respect is shown in the little plot of garden at the rear of the renidence of Mr. G. Bowerling, the chairman of the County Borough of IIanley Chryeanthemam 8ociety, 27, Windsor Street, Hanley. For many weeks it has been the admiration of passer: by. The wealth of bloom, the freah, green appearance of the foliage, and the variegated coloure of the plants, made one of the prettieat picturen imaginable. The Mayor, who recently paid a visit to Mr. Bowering's resideace, and


Fig. 106.-a town Garden, hanley, staffordeare
contents, at this season, consist principally of Smilax asparagoides, Odontoglossum 7 , Adiantum cunestum, Aparagus plamonas, A. defexus, Tabernæmontana, Cologynen, and early-flowering Chryanthemums. About half-a-dozon houses and numerous pits are devoted to the propagation and growth of Ivien, Ampelopair Veitchii, Clematis, \&c.

In the herbaceous and alpine gardens namerous bed were noticed which have been planted with the best varieties of Narcissus. Coming to some thousand of tree and bush Ivies in variety, which are such invaluable town plants, I was told that there is a great demand for these plants. Hybrid Rhododendrona, Ghent and mollis Azaleat, were also here in their thousands, and particalarly well set with flower-buds. Tea and dwarf hybrid Roses in pote, and atadard Roses, took up several acres, and could acarcely be aurpased for general excellence. Handsworth has long been famous for its Hollies, and at the present time there is a large ntock of fine plants
marck, Gaecoigne's Seedling, Peasgooa' Nonach, Lord Darby, and other varieties of Apples. Whether it is the natare of the zoil, or the constant use of the hoe, the trees when lifted show great masses of fibry roots. Gooseberries are grown in hundreds of thousands. Immense breaks of black Carrante, particalarly Baddenborg's Black Prince, the growth of which is something remarkable, were observed. The wanta of cuatomers in the way of Strawberrien are not forgotten, a large breadth being planted with the bent varieties for trial purpones, and also for obtaining early layer. A large tract is almo net apart for trials of vegetablen and farm seeds; and another very important feature is the seed department, the firm during the 150 years of its exintence having alway been noted for ite reliable seeds.

The area of these nurwery grounds is abont 200 acres, and every portion of the land is under some kind of nurnery crop, park and forest treen forming no small portion of the same.
expressed his pleanure at the charming appearance of the garden. Mr, Bowering is to be congratulated on his taste and perneverance, and if his example only tend to show what may be done to brighten our dwellinge, he will have done a great deal to encourage others to follow his load. Steffordtive Weekly Pout, September 7, 1895.
[Thil garden, of which a photographic view was kindly farnished by Mr. Jas, Kent, euperintendent of the pablic park, Hanley, is reproduced in 6g. 108. Oar readers will not fail to notice and admire this garden, situated in the beart of thit not very alabrious pottery town of 60,000 inhabitanta.]

\section*{RANUNCULUS CORTUSE. FOLIUS.}

Snon I received a Firat-class Certiffate and \(\mathrm{Ca}^{1}-\) tural Commendation for the above plant from the Royal Horticultural Society, I am conatantly beirg
atked by correspondents an to my method of cultivation, and a few remarks in the Gardeners' Chronicle will probably auffice to answer them. (See Gardeners' Chronicle, 1892, April 9, p. 465 ) When growing in pote, I tae the following compost for the plant, viz., three quarterm loam, one quarter leaf- monld and rotted dung, with sufficient sharp and to keep the masa poroup. The tabera should be potted about the end of the month of September, one tuber being placed in a 16 -nized pot. The potting should be firm. Stand them in a cold frame, with abundance of air, afford water juat nafficient to keep the soil moist till growth commences, when, provided the drainage is good, they will require abundance. As the pots fill with roots, manare-water should be afforded once or twice a week. At that time the plantes ahould be taken to an airy honse not pervioun to frost, and a sharp look-out kept for green-fly, the leaves and flower-buds being very soon disfigured by these insecta. The plants usually come into bloom by the beginning of the month of March. After flowering is passed, and the leaves are ripe and turning yellow, water should be gradually withheld, the pots being laid finally on their wide out-of-dours till potting time again comes round. The most important time is after the flowering is over, attention being required to be given to the thorough ripening of the tabers, withont which success is doubtínl. The odour of the fowers resembles that of some of the Vandas. C. F. Wood, Heathfield Gardens, Reigate.

\section*{THE FLORA OF KASHMIR.}

The report on the valley of Kachmir, by Mr. Walter R. Laurence, the Settlement Comminioner for the Kashmir and Jammu State, which has just been issued from the Oxford University Press, contain matter which will be of much interest to the botanist, the horticulturist, and the agricultariat.
Mr. J. F. Dathie, the Director of the Botanical Survey of Northern India, ham furnibhed the report with a list of the plante which may be found in the neighbourhood of Gulmarg, and this list is of especial value, neeing that no list of planta of the Kashmir valley has as yet been pablished. In dealing with the Flora of the Kashmir valley and its mountains, the commissioner has confined his attention to those plantr and trees which possess nome well-known economical value for the people. As the Kashmiris turn nearly every plant and tree to mome use, and attribate medicinal properties to every growing thing, it will be seen that Mr. Lanrence's task was by no means an eary one.
The various indigenous plants and trees have been grouped under their several economic ases and properties, and there are fourteen division in all :-
\begin{tabular}{l|l} 
1. Condiments. & 8. Medicines. \\
2. Drugs. & 9. Poisons. \\
3. Dyes and Tans. & 10. Scents. \\
4. Fibros. & 11. Soap and Alkali. \\
5. Fodders. & 12. Timber \\
6. Foods and Rruits. & 13. Yeast. \\
7. Hair-washes. & 14. Adulterants.
\end{tabular}

Kammir in very rich in fibres, and the native make great use of them. Mr. Laurence thinks that it is posnible, as communications with India improve, a trade in fibres may be developed, as every year wepe a great wate of valuable fibre-yielding plant:. The boatmen of Kambmir require ropen of geod quality, and it is atated that for towing-ropes the cotton fibre in the bet material.

The Barzs or Paper Birch is of great importance to the Kashmiris, the bark being used to perform the dutien of rough paper, and the roof of all the better class of housen and of shrines being formed of Birch bark, on which a thick layer of earth is laid.

Kashmir in rich in Gransen, and the boundaries of the Rice-field furnish a fine crop of hay every year. This hay is twisted into long rope which are unpended from treem, thus protecting the hay from the weather. On the lake and swemps of Kashmir, the following food-plante are to be found growing wild:-

> Water Cheat
Waver Lily
> Sacred Lotiu
> Sweet Fhas

Of the fruits of Kabmir, the following are indigenous, and are found in all part of the valley. Mr . Laurence naya their fruit is not 50 good an that of the cultivated trees, but that it is by no means to be despised. The Malberry, Bitter Cherry, Plum, Apple, Pear, Vine, Walnut, Pomegranate; the Raspberry, Blackberry, Bramble, Strawberry, Gooseberry, Red Carrant, Black Currant, Bird Cherry, Barberry, Eiæagnus, Beam tree, Hazel, and Gueldrea Rose. The Raspberry and the Curranta are, according to Mr. Laurence, equal to the cultivated varieties of Earope.

The Kashmiris take great paine with their hair, and beaides using batter and oil, they employ numerons plant for this purpose. To atrengthen the hair, they uae the powdered roote of a plant known Zonir, mixed with batter; and to induce a curliness of the hair, they employ a wash made from Corydalis Falconeri. Mr. Laurence gives a list of the more common medicinal herbs, bat the taak is a difficult one, for the hakims of Kashmir, the native phydicians, attribute ome property to every plant. Many plant are used for acents, the most important of the aromatic plants of Kashmir being the Saunarea [?].
Kashmir is rich in foreats, which produce a great variety of timbers, the most valuable being that of the Deodar. A Department of Forestry ha lately been formed under the sapervision of a Earopean forest officer, and it is hoped that the indiscriminate and wanton destruction of forests, which has been allowed to proceed for so long, will cease. It is a curious fact that no Oak occur in the valley and its mountain aidez, and that no specimen of the Himalayan Rhododendron is known in the valley of Kashmir.

Mr. Laurence's book in a valuable contribation to the economic flora of India, and we trust he may some day find time to puraue hie researches on the botany of the Kanhmir valley a little further. \(H, C, F\).

\section*{The Week's Work.}

\section*{THE KITCHEIV GARDEN.}

By Johin Lambert, Gardener, Powis Castle, Welshpool.
MANURING, TRENCHING, AND DIGGING.-An effort should be made at this season to trench as mach of the kitchen garden at possible, in preparation for next year's crops. The manure should be carted or wheeled by hand as near as possible to the land to be dug. In large kitchen gardens it is asual to have the walks of anfficient width to admit of a horse and cart, and if the wheels are broad and a little attention be paid to cleaning the tyrea of soil when coming off the land or from the danghill, it is much the more economical practice. The edging is got over by mean of a atrong kind of low bridge made 2 feet wider than the cart. The work of carting direct on to the land should never be andertaken except when it is dry or frozen. In garden which it is customary to trench to a depth of 2 to \(2 \frac{1}{3}\), or 3 feet, put the top pit into the bottom of each trench, the noil at that depth is equal to the top in fertility, and may afely be brought to the top. I think \(2 \frac{1}{3}\) feet is deep enough to dig for most purposes, and in but few gardens is the bottom soil equal to that at the surface, unles it has been placed there when trenching the land. In case the soil at the bottom is not so good, batard trenching is the best way of doing the work. In bastard trenching, the soil at the bottom of the trench should be brosen up, manured, and dressed with lime or soot, or both. The lime and soot should be intimately mixed with the moil, and the manure go just beneath the upper apit on the top of the shovellinge, which ahould not be lens than 2 inches thick. If the land is retentive and atiff in textare, it may be ridged. For my part, I do not find much adrantage in this method orer flat digging, provided the surface be left ae it fall from the spade. Land badly infested with wireworm, or in which Cabbage club, shonld now be dressed with gan-lime, one of the best remedien for the purpose; and the present is the best meason to apply it. Gas-lime, as it come from the purifier at the gas-house in lumpy and adhenive, needing to be broken up and pasaed through a fine acreen or sieve, so as to distribute it in finely comminuted particlen over each spit of trenched or dug soil. It may be ased at the top or bottom at the rate of one bandful
to one superficial yard. If gas-lime be used at thit rate or lean each year so long a the land appearin to
need it, mach good will be effected. A dresning mas need it, mach good will be effected. A dresing may
be used of quite this atrength over the anfocig entire garden, and it may be uaed among almot nay kind of crop if uned with due care and in a fine ante.

\section*{PHE ORCEID HOURES.}

By W. H. White, Orchid Grower, Burford, Dorking.
PLEIONE8, OR INDIAN CROCU8E8.-OAR planto of Pleiones have been very gay for the pur for weeks; and, considering the ease with which they can be cultivated, the large number of the fomen they produce at a dull season, and the benatifal effect afforded when they are used for decontive purposes, space should be fourd for a number of tho plants even in as small collection. By the time this note appears in print, \(P\). concolor, \(P\). lagenaria, \(P\). Reichenbachiana, P. præcox, P. Wallichiana, P, msculata, and its almost white variety, albs, will bo going out of bloom, and the carefal observer will note that the green shoots from which the flowen sprang are in reality new growths, which under proper treatment form atrong flowering preadobulbs. This treatment consists in affording frew rooting material to the roots, which start from the base of these new growth. As regards repotting Pleionen, it is not necensary to diuturb them annually, unless the noil ha: become souted, as they may be grown in the ame pots for a couple of easons and atill produce plenty of bloomh It is immaterial whether ordinary shallow pane or pots be used, excapting that pans are best where space is limited. Whichever be used, plenty of clens crocks should be afforded, as copious wateringa are required by the plant during active growth. Over the crocks a thin layer of phagnam-mons ahould be placed, for the two. fold purpose of keeping the compont aniformly damp and the drainage unclogged by will. Turn the plants out of their pots or pany, removing mont of the atale soil, and catting off all roots which are dead; and instead of dividing the pseudo-balbs and bedding them out, as is often practiaed, I amply repot them in clamps almost toaching each other, and merely pull off those which may have grown beyond the main mase of the clumpi, which maj be ased for increase of stock. The compost should consist of equal parte of fibry loam, peat, and aphagnum mona, well mixed with a moderate quantity of coarne silver and. Some growerm make ute of mixture of peat and leaf-no 1 , asnd, and finely-brokeil crock: with equally good results ; and I have ocivsionally observed plants doing well in ordinary pest and sphagnum mons. Wherever it is ponible, the apaces between the pseudo bulbs should be filled in with the roughest portions of the compost, giving preference to sphagnum mons as being retentive of moistare. When repotting is finished, the plank should be placed near the roof glan in any howe having an intermediate temperature, and be afforded acarcely any water until the joung growths atart to grow vigorously; and as the roots and foliage develop, to must the quantity of water afforded be incressed, was liquid-manure water being applied once a wed after complete re-establishment. In addition to toon varieties mentioned, there are P. humilis, P. Hook ians, and its pretty variety brachyglossa which como
from greater elevations, which do beat whon hugu clome to a elevations, in the Odontoglonaum-howe that is commonly left open. These specien generally flower about Ja nuary or February, therefore till thej have done so they should on no account be distarbec but kept in the cool-house and afforded water frim cient in quantity to prevent the pseudo-bulbs fro shrivelling.

\section*{TES HARDY ERUIT GARDEN}

By W. Pope, Gardener, Highelere Castl, Neworry.
FRUIT-BUSH PRUNINQ, ETC.-The pruning of Cooseberries and Curranta may now be carried of purring-in the side shoot on the former and \(n\) and white Carrants to about three-quartern of inch in length, and thinning out the ahoota and apule where mach crowded. To preserve the not basin shape to the bushes, branches show crosind allowed to cross each other, and one or Some ger branches or shoots should be cut sway. Sow Goone deners are constrained to leave the pruning of Gooug berry bushen till the apring, so as to encure buds to frait-bude being left for a crop, and shoot-bud form the bush after the birds have despoiled culd be and where this has to be done, the bushes shoul have bandled up faggot-wine an soon an the lesven bave fallen, which will prevent the birde gaining an ach
to any bat thowe at the outaide of the bundle. If the pruning is performed early in the antamn, and the basher are dreaned forthwith with aoot and lime (which is beat put on rather thickly with a whitewashing bruth), no tird will touch them; even a good duating with dry lime whilat the wood is wet geta as a deterrent, but is not so effoctive as the lime and soot wasb, and it may require to be done a eoveral time. Black Corrants need a thinning of the older branches, and a reduction of the young shoots, encouraging the atouter young shoots that epriag up from the root. All sucker not required for this purpose thould be dag ap, and if neceasary employed for increase inatead of catting. In preparing cuttings of babh-fruits, choose ripe shoots of \(1 \frac{1}{4}\) to \(1 \frac{1}{2}\) foot in length; cut the bottom end tran averaely just below a joint, and the top on the alant. If clean atems are wanted, the bad mast be taken out from the lower part of the cutting, leaving three or four at the top to furnish the main branches. In the case of the black Currant, this method is not recommended, the fineat fruit invariably coming on the young wood, and this can only be obtained by means of the growth springing from the root. All cuttinge should be inserted as moon as made, if in mild weather, in row at 6 inches apart and the wame in depth, the rows being 1 foot apart, for the better convenience of cleaning the ground.

BULLFINCHE8, TRAPPING, ETC.-A harp lookout must be kept now for ballfinchen, ahooting or trapping them on their first appearance. In a few hours a couple of these pests will do an immene amount of damage on an Apricot or a Plum tree and where a good call-bird can be had, they may eavily be taken in a trap-cage, or they may be captured with bird-lime.

\section*{FRUITS UNDHR GLABB.}
by Riohard Parierb, Gafdemet, Goodhood, Chichertm. HINTB ON WORK IN GENERAL.-There bhould be no delay in carrying out the necessary cleaning, praning, and training of treen, Vines, \&cc., in the various forcing-hounen, many other jobs claiming attention at the new year, when less time, therefore will be available for doing the varioas operation thoroughly. All of the Peach and Nectarine trees should be pruned, and the young shoots tied loosely in bundles to some of the main brancher. Then proceed to wash every part of the roof and trellis. When the bhoote are thas drawn up together the gardener is enabled to use with expedition the gardener is enamproved inecticidea on the trees, benide thoronghly cleansing the rougher parts of the bark on atems and branchen. For scale I use nothing but clear water at \(130^{\circ}\) applied with a syringe on three or four anccessive day, and thin, if the water be copionsly uned, never fails to destroy cale. The fruiting wood may be washed with a large sponge dipped in a rather atrong solation of soft-soap and water before laying in, mealy-bug being lens easily dentroyed, and it in necenary to use petroleum at the rate of a wine-glaseful to 4 gallons of water, first having stirred in 4 oz . of roft-soap. To apply thi drearing, use an ordinary acrubbing-bruth, and repeat the application on three or four naccesnive daye. I do not advocate the coating of the Vines with clay, \&c., and would caution gardenera against the use of tar, au I have known Vinea so injured by this aubatance that it has taken veara for them to recover. Thoroughly warhing the Vines at recommended while in a dormant state, and keeping aharp look-out during the first few week after starting to force for stray bugs is a perfectly safe and are mode of deatroying this, the worst of all Vine-pesta we are acquainted with in this country. Fortunate are those who'like myself have no mealy-bug on the Vines, an well know the amount of labour entailed, and the worry caused when this pest is about. The cleaning of the Vine stems, hoots, \&c., is often entrusted to inexperienced men, who sometimenstrip off the bark too freely from the stem, which cannot be other than detrimental. Before the work of cleaning the houses and Vinen, \&ce, is begun, place a thick layer of atable-litter on the borders to abiorb moisture, and mitigate the evils of trampling on thom whist moist. By afterwards burning the litter in the open air, numerous insects are got rid of that may have fallen 'from the Vinen for treen. Finally, the Vines may be gone over with a paint-brush, the point of which is merely moistened with petroleum, and apply this to every part of the Vine except the bud's rougher outer portion, which should be removed, and this can be done by a sharp-pointed piece of hard wood or even an ordinary plant-label, and as it is chiefly
round the spura that the bug collecta, these parts hould be very carefully examined. Having cleaned the Vines in this manner, wash every part of them with hot-water into which petroleum in the above given proportion is mixed, and kept thoroughly and intimately incorporated at \(130^{\circ}\) of heat.

\section*{TEM TLOWER GARDFE}

\section*{By Blicer Wadds, Gardener. Birdall Gardors. York.}

THE BPRINQ GARDEN.-Daring mild weather the planting of Talipe, Hyacinths, Narcissus, Anemones, and other roots, the planting of which has been deferred, should be fiaished as aoon as possible, the bulbs, \&C., mucceeding fairly well if planted at any time during December if the weather permits, which it does not alway do, severe frosta setting in nometimen, delaying every kind of work. It sometimea happens that early planted bulbe pash through the noil if the season is mild earlier in winter and epring than is good for them, and when that is the care short manare or leafy soil should bo laid on to protect hem from frost. If the material used is such that it can remain on the beds without looking unaightly, and the bulbs grow through it, so much the better A keen look-out thould be kept for mice, which deatroy Crocas corms in the winter month enpecially at times when much snow lays long.

PANBIEB, WALLFLOWERS, PRIMROBES, POLYANTHUS, MYOBOTIB, DAIBIES, AND AJUQAB. The planting of these priag-flowering ubjecte may be continued, weather permitting, not forgetting to fill up gapa in earlier-planted beds, and choosing dry ather for this kind of operation. Pansies are often injured by wind, and they should alwaya be made secure by pressing the soil to them when the matter is dry. Rabbits and hares must be kept from these plante, for if they once get a taste of them, and the bede are not protected, they will make clearance of them. Late cattinge of Viola or Pansy, or seedlings that are being wintered in frames, whould have the lights removed from off them on fine daym, and abundance of air afforded at nighte; and the lights put over them as a protection againat heavy rain or frost.

CARNATIONS AND PICOTEES in frames hould have attention, very little water afforded till days get longer, and in fine weather the fulleat ventilacion night and day is needed. If the pote are not se jet planged in fins conl-ashes or cocon-nut fibre refuse, this should be done.

CALCEOLARIA, PENTSTEMON, ANTIRRHINUM If in frames, the plante require about the amo kind of treatment as the above-named throaghout ine ointer. The cuttings should now be well rooted the winter. The cattingen and nhould any of them show flower, an they will do when the ahoots taken were hard in texture, and bad to get, the flowers mut be nipped off with a pair of scissore. get, the fowersmunt do not require much water, atill They mrut not be allowed to become dry. It is a they mutt not be good thing to pat two handfuls of wood athes or burnt refuse in each watering-can when watering the beds. Afford abundance of ventilation to sll rooted cattings, and cover ap well againat frost.

CUTTINGB OF HOLLIE8 AND OTHER EVERGREEN8, and hardy deciduous shrabs, should now be taken, selecting ahort well-ripened shoots, with a portion of the older wood attached. They thould be placed in pursery lines at 1 foot apart in aand, loam, and leaf-soil, in a sheltered situation, the more tender varietie ach an Garrya elliptica, Skimmia japonica, male and female varieties; and Aucubs japonica, male and female varieties, should have the helter of pith or frames.

RO8E8.- In mild and favourable weather take cattinge of H.P. and other kinds of hurdy Rosen, the catting being taken before the buthet, \&cc., are praned. Rone cattinge should be made from short praned. well-iper border facing the west server as well as asheltered the cattings hould be placed in little any, and the cuttinga should be placed in litile trenches, \& foot or further apart, the to make a good number of cuttings, keeping each variety labelled and in damp soil till all are ready for insertion, and then the job can be quickly finished. Remove all eyes or buds from the portion that will be anderground, which applien also to all cattings of deciduons shrubs, or suckern will be source of veciation and troable. The noil about Rose-cuttings muat be made very firm, and levelled with the back of the spade. A Rose-catting should not be placed deeper than half ita length, and this thould be 8 to

12 inches. In hard weathor protect the bed with Fern or litter.

ChRYBANTHEMUMB. - The antuma-growing varietie that are planted in beds or borders whould be cat off near the ground, and in cold situation the old stools protected with short manure placed round the root-stock. Cattinge of each sort should be kept in pots under the sholter of frames, or in a cool house, daring the winter.

\section*{PLANTB UNDER GLABS.}

\section*{By W. B. Bxarin, Garderer. Weat Dean Park, Chrehester.}

PLANTB IN COLD FRAMEB.-Ia theee receptaclen, the herbaceous Calcoolarima are cultivated in mont garden until their removal to warmer quarter in necessitated by hard weather. The plants will require careful watering, and to be turned ronad every week, kept close to the glans, and have plenty of air afforded the frames in mild weather. The common white elage muat be carefully sought for, es they aoon gaaw and diafigare the lenver. When the pote fill with roots, some weak noot-water may bo afforded occasionally, eay once a fortnight. Bedding plants in frame require at this sesson acarcely any water at the root, nor will they do so for the next two month ; but should water be needed, see that it is afforded early in the day. In mild weather, ventilate freely at the top and bottom; and keep everything about the plante aweet and clean, and free from decay.
cinerariab. - These, if for a late diaplay, should be afforded some weak manure-water, if the pots are flled with roots, and fumigation if greenAy has mado ite appearance. Fancy Pelargoniums will need to be kept clowe to the glass, and allowed air night and day; and even in cold weather they hould not be quite anaired. 1)o not let them remain in one position for longer than one week, bu: tarn them round wholly. Stop all shoota when four or five leaver are made, doing so at one time, or the plants will break irregalarly. Pelargoniums being plants very sabject to aphis, should be fumigated once a month.

ZONAL PELARCONIUM8.-There, if for summer lowering, mas be potted into large 60's or \(48^{\circ}\) placed close to the glass in a pit or greenhouse, and when the roots have permented into the fresh soil the points of the lesding shoots msy be pinched off.

EABT LOTHIAN BTOCKB are benefited by being top-dressed with a small quantity of Clay's Fertiliser, and by having the pit-lights drawn entirely off in mild weather. Some of them may be placed on a shelf in a house having a warmth of about \(50^{\circ}\) by day to \(45^{\circ}\) by night. These will bloom early, and a Peach-house jut atarted is a very waitable place for pushing them on into flower.
border carnations.-These, if tanding in cold frames, will require scarcely any water for the next two monthe, but plenty of air day and night in mild weather.

WALLFLOWER8, if caltivated in pots, may be brought into an early Peach-house or vinery to be brought on into bloom by gradual forcing. Covent Garden Blood-red is a good variety for early flowering, it being a plant of dwarf habit, and the flowert of a pleasing bright colour. Wallfowers put into gentle heat at this season flower ia Febramy.

TREE PAEONIES IN POTB.-Theie are beautiful plant for cultivating for conservatory and greenhouse decoration, and if any of them are in need of repotting, the present is the proper time to do it. The pots uned ahould be about two nizas larger than thone the plant are occupying, and the pottingenoil may consist of turfy loam, leaf-soil, cow-manure in a dry state, and enough coarse sand at will leep th soil in a porone condition for a year or two. Pianta in an unhealthy state should have the old woil in an unhealiny clean away from the roots, and be repotted into clean pota of the mame or amaller size, and not allowed to flower till the second year after repotting. Plange them over the rim in fresh treelenves in cold frames, or plece in a late Peach-bouse or vinery. If the potting-soil is moderately paoist at the time of uaing it, no water need be afforded the plants before growth begins. Pasuies, when forced into bloom with heat, bould be brought on very gradually, or the flower-bads will fail to open; and the strongeat and best-rooted plante sbould bo nolected for this purpote. Grood varietien for growing in pote are Raine Eilizabeth, Madame de Vatry Blanche Noisette, Madame Callot, the Queen, lactea, Panicea, Beanty, Homer, sud Jupiter

\section*{EDITORIAL NOTICES.}

Advertsementa should be sent to the PUBLISHER
Nowspapers.-Correspondents sending newspapers should be carcofle to mart the paragraphs they wish the Editor to see.
Illustrations.-The Editor will thantrilly recive and select photographs or dranoings, suitable for reproduction in these pages, of gardens, or of remarkable plants, Rowerrs, trees, ce. but he camnot be responsible for loss or injury.

Local News.-Corresponients will greatly oblige by sending to the Editor early intelligence of local events likely to be of interest to our readers, or of any matters which it is desirable to bring under the notice of horticulturists.

APPOINTMENTS FOR DECEMBER.

THURSDAY,
saturday,
TUESDAY,

\section*{MEETINGS.}

\title{
TUESDAY, DEc. 3 \& National Chrysanthemum Society
}

Dec. 5 Wational
Dec. 14-Royal Botanic Society
Dec. \(17\left\{\begin{array}{l}\text { Royal Horticultaral Society: Horti } \\ \text { cultural Club }\end{array}\right.\)

SALES FOR THE ENSUING WEEK.

MONDAY, DEC. 2 Coatinental Plants, Roses, Lilies Rooms.
TUESDAT. DEC. \(3\left\{\begin{array}{c}\text { Dutch Bulbe at Protheroe \& Morris } \\ \text { Rooms. }\end{array}\right.\)
WEDNESDAY, Dec, \(4\left\{\begin{array}{l}\text { Dutch Bulbs at Protheroe \& Morris }\end{array}\right.\)
THURSDAX, DEO. \(\left\{\begin{array}{l}\text { Dutch Bulbs, Continental Planta, } \\ \text { Carnations }\end{array}\right.\)
FBIDAX. DEC \(6\left\{\begin{array}{c}\text { Orehids and Dutch Bulbs at } \\ \text { Erotheroe \& Morris' Rcoms. }\end{array}\right.\)

CORRECTED AVERAGE TEMPERATURE FOR THE ENSU ING WEEK, DEDUCED FROM THE OBSERVATIONS OF FORTY-THREE YEABS, AT CHISWICK.-41..2.

Artichokes.
To eat an Artichoke gracefully is so difficalt an accomplishment that punotilious people might well prefer to partake of the luxury in private Knives and forks are useless under the circumstances, and not only are the fingers soiled, but the heap of débris left on the plate is disagreeably suggestive, in its size, of a "kitchenmidden" or a rubbish heap. To be sure there is the delicate morsel from which all the scales or bracts spring, viz., the Artiohoke bottom, botanioally the "reoeptacle." An Artiohoke is botanioally a large Thistle-head, with its soales or bracts, its flowers, its Thistle-down or pappus, and its reoeptaole. The receptacle in most Artiohokesis relatively small, and apt to be mixed with the "choke," by which expressive name the pappus of the innermost florets is designated. Now, if the Artichoke bottom could be developed at the expense of the succulent matter of the scales, a great gain would result; and this great gain has, in a certain degree, been obtained, though it is so little known in this country, that we deem it desirable to call attention to the matter. At the Paris tables-d'hôte at this season, "fonds d"artichaut" are used with a freedom which shows that there is no soarcity of them in the markets, and that the price mast be considerably lower than it is here. Moreover, not only are they mach more abundant than Artiohokes are in England, but they are of thioker and more fleshy sabstance, and there is in consequence more of the toothsome morsel. Parsuing our enquiries, we luckily fell in with our excellent friend M. de Vrimorin, and from him we not only learnt all the particulars we
desired, but we were enabled to see the plant growing in his most interesting trial-grounds at Verrières, alongside of several other varieties. From this source was obtained the specimen from whioh our illustration (fig. 107), was prepared. The foliage is very distinct and handsome, but we must await another opportunity of figuring this. The scales or bracts of the receptacle are comparatively less sacculent than in the ordinary varieties, whilst the receptacle or bottom is unusually thick and fleshy. The variety is not altogether unknown in this country, and is mentioned in many of our garden oatalogues as the large green Paris Artichoke; but it is certainly less known than its merits deserve, and much less grown than the ordinary Globe Artichoke. Around Paris it is grown as the Artichaut vert de Laon (pronounced Lðnn).
It is very hardy for an Artichoke, with greyish leaves almost destitute of spines. The "heads" are, as we have said, remarkable for the depth of the receptacle. The ovate-lanceolate soales are wholly green or slightly tinted with purple at the base, at first closely packed, but subsequently rather spreading at the ends, and usually entire at the margin. M. de Vilmorin remarks that though not so early as some other varieties, it is the best for general purposes. No other variety has a receptacle so deep and fleshy. It comes true from seed, but is best grown from offsets.

Like the ordinary Globe Artichokes, it requires a deep, rich, moist, but well-drained soil, and it should be planted in lines about 1 yard apart each way. The sets are planted in spring, and will even produce flowers the first season, but it is better to await the second season's growth. In hot dry weather, water must be afforded, and in winter protection by mats or a thick layer of dry litter is essential After four years it is best to form a new bed, or in large establishments to arrange for a series of beds to come in succession. The prices asked in our markets ought to seoure ample remuneration to the grower.

The oultivated Artichole is not a distinct apecies, but a derivative from Cynara cardunculas, the Cardoon. Indeed, the Artichoke, as we know it in gardens, is not found anywhere in a wild state. The Cynara oarduncalus has been developed in two directions. In the Cardoon the ribs of the leaf have been developed, whilst in the Artichoke the flower-heads have been the objeots of selection. In the Botanio Garden at Tarin, by growing the wild plant from Sardinia side by side with the cultivated Artichoke, Professor Moris was enabled to prove their identity, and this view was supported by Professors Whlionm and Lange, who have had special opportunities for obtaining information. Alphonst df Candolle, in his Origine des Plantes Cultivées, shows that the ancients only knew and oultivated the Cardoon, the Artichoke, as we know it, not being introduced into Florence till 1466. It is donbtfal whether the anoient Egyptians cultivated the plant, and there is, it appears, no word in Hebrew or in Sanscrit for the Artiohoke, an indication of its comparatively recent introduction into oultivation. In this country the Artiohoke was oultivated in 1548.

One of the most curious points in the history of the wild Cardoon is its naturalisation daring the present oentury in the Pampas of Buenos Ayres, where it has spread with such abundance as to obstruct travel and traffic. It is worth enquiry whether the foliage of this wild or half-wild Cardoon might not be utilised for the salke of its fibre, and a nuisance thas oonverted into a blessing.

\section*{Epping Forest.}

The Expert Committee appointed loy the City of London Corporation, to repart on the Forest, met recently, for the purpose of inspecting the work which has been done, and report to the Chair. man of the Committee as follows:-

We have, again, very carefally inapected thon portions of Epping Forest upon which we had pre. viously reported, and we have examined the work w ich has been carried out since the inge of the report, with the view of aeeing whether it ma in accordance with the spirit of our recommendation,

We beg to make the following remark:-
Epping Thices.-This was the first point rinited. We were atruck with the beanty of the outline mhich hat been obtained by judicione cuttings on the fringe of the wood. We conaider that the mak done throughout this wood bat been good.

Teames Valley (Teeydon Bors).-Thin in an unsightly and monotonous portion of the forem, owing to the number of gaunt pollard Hornbeam. We con sider that this would admit of further clewing, and that portions might be advantageouly thinned out in large patchen and sown with 0 as, Beech, and other trees. As these grow up, further areas might be taken in hand in the same manner.

Treydon Coppice.-We have made one or two naggestion here to the Sa perintendent of the Fores with the view of opening out glades. Thereares number of young trees coming up through the coppies which are in danger of being choked. Thete bould be carefully preserved by cutting out mel portions of the coppice as are a source of danger to them. Thir course will enable this portion of the forest to asmume once more that natural aopect which the treatment of former year, when pollarding and coppicing were allowed, tas obliterated.
Back of Rigas' Retreat (Theydon Bois), -The thinning here has been moderate. We bave pointed out to the Superintendent placen where further action is necesary, with a view to improving the condition of some of the finer trees.
Theydon Hiar Wood.-Ia the northern portion of this wood, which consiate of Beech trees, there in -as a matter of consequence-no underwood.
We consider that the policy to pariue in thit portion, is to mark those trees which are mot worthy of premervation, and gradually to free them from any worse trees which may be injaring them. By laying down a definite line of action in this was, there will be continaity of policy independent of changes of officials.

The acathern portion of the wood may, we collnicer, be left alone for some years to come.

Broadstrood (Loughton).-We have made nome sugge ationa with a view to improving the outline.

Woodridden Hill - We have no objection to (ff r to what has been done here.
Verderers' Ride (High Beech to Woodeaddys), - We are of opinion that the glades which hare bet opened out bere might have been bolder and leil close together.

We have made nome naggention to the Sapeis tendent with a view to improving thene.
Claf Road, Loughton.-We consider that the breaking up of the straight line hat been judicionily effected, and that the reault in a great improvemat on the previous atate of thing. The thinning bus nowhere been excesnive.

Bury, of Hawk Wood.-There are a numberd pollard Hornbeam in this wood which should by removed. They are damaging the Oak trees; prevent the boles of the Oaks from being reed th their removal would improve the charscter of the wood. We attach great importance to retainiag 0 ak character of this portion of the foreat as nothing wood, and we would recommend that doarint further be done here beyond the gradual doarine out of the pollard Hornbeame.

Buaz Wood, Wanstead. - The thinning done het during pate jears appears to be judiciout.

Wanstad Pari.-The old E'ms, with nudur. growth of young Sycamore coming up beed the them, are the principal featare of this w
object of thinving was to remove ame stag-headed Elms, and those which interfered with the development of the Sycamores. No other Elms, unlens dead or dying, need be removed, as the Sycamore now bas anfficient light and air to hold ite own againat the Elm.

Walthaystow Wood,-In this wood a number of Hornberm pollards have been cat out in single trees here and there. Ia our judgment, a better effect would be obtained in future by removing such pollarde an it may be devirable to get rid of, in groaps, leaving other portion unthinned in the meantime. By adopting this course, a gradual return to a more natural condition of the woodland would be obtained, the artificial pollards giving way to natural and unmutilated trees.
2. It is desirable that when the plan is matured and approved, the execution of the work should be pleced in the hands of the Superintendent of the Forest, who ahould be responsible to the committee for the entire management of the forest.
3. At the present moment, the forest is in places littered with heaps of cat timber. This is very unaightly, and we atrongly recommend that arrangements should be made for the cat timber to be removed by May 1 in each jear.
A. B. Frbenan-Mitfurd.

Jamer Anderean.
Wh. Robinson.
W. Schlich.
A. D. Webster."
geometry and astronomy, and calculations of altitudes and auperficies. Mr, Baker thought the number of plants named at the date referred to was a matter of some intereat to botaniate, and sugzested publication of the list of names with their identification where posaible. Dr. D. Morriv, C.M.G., read a paper on the \({ }^{\text {"D }}\) D. velopment of a Single Seed in the Fruit of the Cocoanat Palm (Cocounacifera)." Alluding to the occurrence of Palm: with twin and trifid stem: arising from one base, it was ahown tbat these were due-(1) to several seeds in one fruit; (2) to more than one embryo in a seed; or (3) to a branching of the primary ahoot. In cases cited by Rumphias, Forben, and others, neveral seeds were found it ons fruit. The courae of development of the siagle cell wat illustrated by mean of lantern alides.

 THE THICENESS OF THE RECEPTACREQ. (SEE P.618.)

OAx Hict, Woodrond.-The thinning here hat been carefully carried out.
Katr's Cellab, Loughton.-This wood is typical of the large area of monotonous Hornbeam pollard which are unfortunately ao conspicuous a feature of Epping Foreat. The clearings are too mall, and too near each other. We recommend that, in future, they should be of a bolder type, and further apart.
Although it may not be exactly within the termn of our reference, we beg to offer the following remark for the consideration of your committee:1. We would augent that a plan of operations thould be drawn up, showing which aress it is proposed to deal with daring the next ten years, and the character of the operations. This mecheme should be drawn up by the Superintendent of the Foreat, and anmitted to the Epping Forest committee, who might, if they thought well, take further advice as to the proponals made in the trheme.

Our Almanac.- We hall be obliged if secretarie of horticultaral and other nocieties, and our correapondente generally, will send us as soon us possible the dates of any exhibitions or meetings to be held during 1896, for inaertion in our annual Almanac.

Linnean Society. - On the occation of the meeting on Thureday, November 21, Mr. J. G. Bayer, F.R.S., Vice-President, in the chair, his Grace the Dake of Bedford, Mears. Bernard Arnold, and E. B. Fernan were elected Fellows of the Society. Mr. B. B. Wood was admitted. The Rev. G. Henslow exhibited a MS. Commonplace Book of the latter end of the fourteenth centary. The entries in Latin and English were found to consist chiefly of medical recipes, in which about 200 planta are named for their use, and some method of distilling aqua vitse deacribed. In addition were some notel on

The obliteration of the two cell began about the second or third week after the pathe was open. By the end of the eventh week they were reducad to narrow slita, which were still traczo able in the mature fruit. Oa behalf of Mr. A. J. Ewart, Professor Harvey Gibson gave an abstract of a paper on "ansimilatory inhibition, the causen by which it may be induced, and their influence on vitality." It was shown that most inhibitory agencies operate by inhibiting the initial atages in assimilation, bat any cause affecting the rapidity of removal of carbohydrates from assimilatory celle will also affect their power of assimilation, the commencement of which in determined mainly by the development of the chlorophyll pigment, but is also influenced by other indeterminate factorm, probably plasmatic in origin. The paper dealt mainly with the discusion of experiments with a large number of plants, and criticiom of the resulta arrived at by
other inventigator. An intereating discasnion followed, in which Dr. Scott, Professor Reynolde Green, and Professor Weiss took part. On behalf of Mr. A. C. Seward, Profensor Reynolds Green gave the anbutance of a paper on a new apecien of Pinitea from the Wealden (England).

At the evening meeting to be held on Thureday, December 5, 1895, at 8 p.ar., the papers to be read are:-I. Mr. J. C. Droce, F.L.S., "Oa a New Specien of Broma in Britain; II. Mr. W. F. Kirby, F.L.S., "Notea on New or Rare Phasmidæ in the Collection of the British Museum.'
the royal horticultural Society's Com-MITTEEB.-At the last meeting the various committeen were asked to recommend the namen of new membern to replace thone who retire by rotation or otherwise. It is very advisable that new members be introduced, and those who can suggent desirable pernons should at once communicate with the chairmen of the respective committeen. The meetings of the Scientific Committee have been very poorly attended during the last year, and it is obvious that the rale enacted a few years since, though unimpeachable in theory, has, in the case of this committee, proved dieatrons in practice.

NATIONAL ROBE SOCIETY.-The nineteenth annual general meeting of the National Rose Society will be held, by permission of the Horticaltaral Club, at their Rooms, Hotel Windeor, Victoria Street, Weatminater, on Thursday, December 5, at 3.30 p. \(\mathbf{N}_{1}\), to receive the report of the committee, to pass the accounta, to elect the committee and officers for the ensuing year, and for the transaction of other general basinesr. The nineteenth annaal dinner of the National Rose Society will take place, by permimion of the Horticultaral Clab, at their Rooms, Hotel Windsor, on the name day at 530 p.m. The chair will be taken by the Rev. A. Foster-Mrlinar, Vice-Prenident.

Royal Botanic Society.-A meeting of the Fellows of the Rojal Botanic Society was held on Saturday afternoon in the Museam at the Royal Botanic Gardena, Regent's Park, Mr. Artide Rigg presiding. The following new Fellowa were elected Sir Oawald Monley, Lady Milford, Mrr. Miley, Mra. Napier Sturt, Mra. Vignolen, and Measra. D. Banman, H. Hoare, J. Homan, and C. Raleigh, and, an a member, Mrs. Carre Tucker. The eecretary atated that the nociety was in ponsession of one of the finent collections of economic plants in England, and he exhibited three specimens of Cinnamon grown in the gardens, Cinnamonum zeylanicum (Ceylon), Cinnamonum Cania (Eant Indien), and Cinnamonam Kiamis (Japan). The following donations were also on view : Rhizomes of Gloriona superbs (India), presented by Mra. Garden; Tears of "Frankincente" (Olibanam tharifera), prezented by Mr. James Collins, and wome very fine Chrymanthemum blooms and reedling Cyclamen, one year old, grown in Jadoo fibre.

The Palmb at Battergea Park.-This park contaiun a fine collection of Palma, eatimated to be worth \(£ 2,000\), but there is no proper building available for their reception. Many are thrant away from public obnervation in one of the atore greenhoumen, the floor of which has had from time to time to be lowered to give apace for the growing plants. They now atand in a pit nearly 8 feet deep, and as this is below the river level, flooding takes place. Other Palme are ignominiously laid on their sides in a neighbouring greenhouve. In 1891, the County Council renolved to build a proper ehelter for these planta, but this decirion was mubrequently revoked in view of the possibility of the Albert Palace becoming available for the purpore. The Parke Committee is again seeking authority to erect a Palm. house at an entimated cost of \(£ 2,000\).

Mr. H. R. Hutchingon,-The completion of the gigantic Index Kewenois has liberated Mr. Hercinsson from his employment on that worl. Mr. Hurcernsor has been working under Mr. Jackson's supervinion for more than twolve jeare,
and him services as an amanuenain familiar with plant-names and with botanical literature would be of high value to anyone requiring such servicen, as we can tentify from our own knowledge.
"The Rosarian's Year-Book for 1896 " will be published on January 1, 1896. It will be adited by the Rev. H. Honywood D'Ombrain, Hon. Sec. of the National Rone Society, and will contain :1, Mr. Alexander Dick*on (with photograph), by Mr. C. J. Grahame ; 2, The Miniatrations of the Flowern, by Rev. D. Williamson; 3, Rose Growing in California, by Mr.'John L. Howard, of San Francisco ; 4, Single Roses for Garden Decoration, by Mr. George Laing Panl; 5, The Rose and the National Rose Society in 1895, by the Editor; 6, Lord Penzance's Hybrid Sweet Briars-their farther Development, by Mr. Charles Wyatt; 7, The Rose Weather of 1895, by Mr, Edw. Mawley, F.R.M.S., Hon. Sec. of the National Rose Society.

Botanical Ebtablishmentr.-The Kew Bul. letin (Appendix iii., 1895), has a full list of pablic botanical establishments at home and in the Colonies, together with the name of the officern of thone establishments.

Flowers in Season.-We have received from Pentillie Castle, Cornwall, where Mr. T. Johnson it gardener to Colonel A. Coryton, some exceptionally robast flowering ahooth of the lovely and fragrant greenhouse plant Lucalia gratisnima. Uaually, the plant is not eary of cultivation, and wach heads of flower as sent are very rarely seen. In size they reminded us whilat unpacking them, of large-fiowered Hydrangear. From the appearance of the flowers we conclude that the plant has been grown in a border in a cool greenhouse, bat in such a locality it would probably aucceed under the shelter of an outside wall.

\section*{Peeblesehire Horticultural Absociation,} -The fortnightily meeting of the above sunciation was held in the lesuer Good Templar Hall on Tuesday evening, and in the absence of the Vice-Prenident, Mr. A. Slater, the chair wan occapied by Mr. D. L. Mackintose, Kingumeadows. After the meeting was opened, the chairman introduced \(\mathrm{Mr}_{\text {. }}\) Jambs Graham, gardener, Coltnens, who read an inatractive paper on the "Cultivation of Orchard-houne Fruit Trees in Pots." At the close the chairman convejed to Mr. Grafam the thanke of the amaciation for his instractive paper, and also for the fine exhibition of Pears which he bronght to illuatrate him subject.

Mild Weather and Hardy Flowers.-A corretpondent, writing from the went of England, remarks apon the wonderfully mild weatherJamines, China Rosea, Wallfowern, Violets, Pyru japonica, \&cc., are in fall flower,

Presentation.--We underatand that it in the intention of the leading foreman and others in the employ of Menarn, Jas. Veitce \& Sons, Royal Exotic Nurnery, Chelsea, to present an illuminated addrems, a timepiece and two nilver candleaticks to Mr. Davidson, on his retirement from service. Mr. Davipson has occupied the onerous post of manager of the seed department for twentp-neven yearn, and is relinquishing it on account of failing bealth.

Summer \%. Autumn Shows,-At Wcrkep in Nottinghamshire lant sammer the local Rose and Horticultural Society's exhibition was held ander very unfavourable weather conditions, the renult being a heavy deficit, although the thow itaelf was all that could be desired. To enable the committee to meet the loss, it was proposed that an aatamn nhow should be held, without prize competitions, aimply relying apon the aupport of the horticultarista in the neighboarhood. H. V. Machir, Evqe, of Workmop, gave very cordial support to the idea, which resulted in a surprisingly naceensfal exhibition in the town-hall on Nov. 21, when, without a prize of any kind, an admirable display of Caryannthemam plants and fruit was obtained. Collections of
the Dake of Portland, the Right Hon. F. J. Saviu Foljamber, Sir H. Watson, Viscounten Galwaz, Mhe Aldrrson, J. D. Ellers, Esq, Vircount Halimes, and Mra. Mellish, Hodsock Priory. Meara. B. \&, Williams \& Son also contribated a group of phanta, The exhibition was opened by the Dachem of Nm. castug, and resulted in a clear gain of \(£ 50\) ather paying off the deficit. It was an interesting experio ment, bat it is to be hoped the next summer thon will not only be able to meet ite own expennee, but posaibly to provide something towards the entablinh. ment of an annual autamn exhibition. Cor,

\section*{Cheshunt, Wormley and District hortio} cultural Mutual Improvement Secietr.At the anal fortnightly meeting of thin Society, held at Tarnford on Friday latt, Mr. Horcancon presiding. Mr. A. Prabce contribated an interenting paper on the Taberous-rooted Begonia. At the close, a discussion was initiated by Mr. Hercasoon, and taken part in by Mearri. G. Weston, A. Shrose, W. Palmer, and otherre, the subject being chiefly the rust-divease of the leaves of Begonias, peatr-compont, masaren, \&c. Hearty votes of thankn to Mr. Pearca and the chairman concluded the meeting. The next meeting will be held on Thursdy, December 5, when Mr. War. Habrison mill gives lecture on Grape-growing for Market.

Flora of Dumfriesshire." - Mr. G. r. Scott-Elliot, aaniated by J. McAndebw, J, To Johnstone, Mies Hannay, mad othern, han writton a Flora of Damfriesshire, including Nithadale in Kirkendbrightshire. This work is, it is stated, almost entirely produced by local botanitut, who have studied not merely the land and maritime planta growing in the districts named, but aloo the insects frequenting the vegetation, and the conditions of climate and moil under which it occars. Introdactions on the geology, entomology, climate, and meteorology of the neighbourhood, and a map, partly geological, are accordingly included in a volume treating mainly of the local fora. Every where, nowaday, the inter-relations of the various aciences are acknowledged, and also the impor sibility of treating of any one of them without constant reference to kindred atadien.

An Unparalleled Attraction.-In a colthege window in a well-known reaside town, we lately observed a small, but doabtlens select, collection of fruit and nate. That posaible purchasers might on no account fail to notice these dsinties, attention was attracted to them by the following inscription, most legibly written, and poised among some Applet: "Look. Namber ellh, \(1 d_{0}\) a pint." Though quality of the frait might be easily equalled or excelled by that of other samples of it, the libed aurely was, at least, as regards apelling, a nonpareil

Tree Plantina in Aberdeenshiae.-The Land Committee of the Governors of Gordoril College, Aberdeen, a college posseswed of many gerem of land, have accepted the offer of Menarn, Wirulis Smith \& Sons, nurserymen, Aberdeen, for planting the land of Pitdoulzie, Auchterleas, with trees, their ostimate being at the rate of \(£ 116\) s. per imperid acre, and \(8 \%\), per acre for renewal for two jurn. Mr. Thomar Milne, Glenburnie, was the neceme fal offerer for farnishing the plantatione a Cogierieve and East Craig, his entimate being at the rate of \(£ 2\) per imperial acre. He alvo thiple ates to renew at least 1000 trees within tro yall if required.

Thee Plantina at exmouth.-The fint Lime-tree of the many which are to grace nwold the principal atreetm in Exmonth, was prat to recently in most beantiful westher by Mr. Ru. Lutr, chairman of the Diatrict Council. Some ount pressure was brought to bear, and a privste tres mittee offered to parchase several hundred of the if the Council would accept and plant themer preve ef? they have undertaken to do, and in the preveran furs an enormous crowd, amcong whom were tome appro-
priate achool-monga, the initial atep was taken. The chairman in the course of his remarka alid that it was a great pleasure to him to have planted the first tree, and hoped the avenue of which it would form a part would become a source of pleanure to the inhabitants.

Iribh Gardeners' Absociation.-Mr. J. H. Parakle, M.P., lately delivered before this Society an exhaustive lectare on Fruit Calture in the Southern Staten of North America, in the courne of which he deacribed the Iriah as a quarter of a century behindhand in fruit-growing, being in about the asme condition an were the inhabitants of the State of Alabama when the lecturer first attled there. Now fruit-growing wae one of the mont important industries of that State. If Irish fruit-growers meant to make their induatry a commercial auccess, they muat first of all find out by experiment what were the varietien of frait and vegetables best adapted to the local condition. When he firat began to send fruit to New York, one car-load a day wae conaidered aufficient-indeed, almont to glat the market; now they were sending 100 car-loads a day. It took a long time to ascertain what each tract of country was apecially adapted for, but perseverance and experiment had done it for them, and similar atep would have to be taken in Ireland with a view to finding out what fruite did best in different parts of that country before the industry could be established on a cound commercial basin. The fall account of Mr. Parnell's lecture is given in the Irish Farmers' Gazette of November 2. Mr. F. W. Moore, of Giaenevin, made some pertinent observation: on the eubject (f fruit-growing in Ireland, pointing out that finer Apples were not to be seen than those produced in Ireland.

Thee Planting in the ible of Man.-We learn that on the crown lands in the Isle of Man Her Majenty's Comminsioners of Woods and Forents continue afforeatation operations, and we underatand Mensrr. Thos, Kennedy \& Co., Damfrien, have again secured ordera to supply a large number of foreat trees for this parpone.

Horticultural Meetina at Ghent.-The fineat exbibit as this meeting was cer tainly that sent by M. Lucien linden, consisting of eight plendid varieties of Catasetum, of which five received a Certificate of Merit (par acclamation); they were C. mirabile, macrocarpum, Lindeni, slendens, chryotoxam, Bangerothi cupuliforme, and macrocarpam aureum, already described and figured in the Gardeners' Chronicle. M. L. Linden sent a Davallia Truffautiana, which also obtained a Certificate of Merit (par acclamation), and which is also knuwn to our readers. M. G. De Saighbr obtained a nimilar award for fifteen beautifully grown Chryanthemoms, all good sorts. An equal award was allotted for Hypolytrum Schraderianum, from M. Pynakrt, a very ornamental plant, reambling a gracefal Pandanus; the leave at the bave are of a beautiful violet-rose tint (ee Gardeners \({ }^{\text {a }}\) Chronicle, April 8, 1893, p. 414). Certificates of Merit were amarded an follow:-To M. F. Dessois, for Poinsettia palcherrima fol. aureo var., the leavea nicely bordered with golden-yellow, giving a very pretty effect when the plant blooms. To the ame exhibitor, for Scolopendrinm vulgare acalariforme, a very curious variety, crimped, embonsed, and andulated; to M. Pymakrt, for Asplenium marginatum, the foliage very pale green, almost transparent, remarkable above all for a thickened membrane of darker colour which borders each leaf, and also to M. Pymagrt for Pberis eerrulata voluta, a aeedling Variety with wavy foliage and pale in colour. To M. Rodias, for Peanivetam Rappelianum, a most elegant grass; the light spikes are violet-rowe in colour, and will be useful for floral decoration. To M. Julas Hre, for Lerlio-Cattleya Diana, L. elegana \(\times\) C. pamila; the lip, which is dark purplish-red, it a great advance. To M. Lo De Smet-Duvivirb, for Cypripediam bellatulum and C. Charle worthi, two Harietien of each pecies. To M. Arthur Van den Hesin, for Pteris Buchneri, a variety of atrong and robuat habit; usefal for cultivation on a large acale.

To MM, Dec Mryer and L. De Smet-Dutivire, for Asparagus Sprengeri, a greenhoune variety of vigorous growth, and producing, if jut theltered from frontw, a quantity of elegant bright green spiker, very decorative.

\section*{Chrysanthemumb at Antwerp.-The recent} exhibition organised by the Société Royale d'Horticultare of Antwerp, hows the progrens made in Chryananthemum caltare, as both amateur growers and horticulturiate alike ataged new and well-cultivated plants. Among the exhibit were the following from M. Tr. Vermedlen: Iaternationale, with thirty flowers; Mdlle. M. A. de Galbert, Dac de York, M. E. G. Davernay, M. Charlen Molin, M. E. Boyce, M. Ad. Giraud, Benjamin Girand, and other varieties, attaining a maximum height of \(4 \frac{1}{3}\) feet, and each bearing from twenty-five to forty flowern. M. Henar Vanderlinden ataged Lincoln, 4 feet high by 41 feet across, with 200 flowers; Internationale, with fifty-four flowert, nearly 8 inche acrons; Souvenir de Jambon, with ninety-two blooms, and nearly 5 feet acrom, and other varieties. Among the plants a year old should be mentioned Suneet, with fifteen large flowern; Docteur Allard, with fifty bloom: Waban, a marvel, with flower nearly 10 inchen acrons; M. Benjamin Girond, with fifty bloom: Charle Davis, with twenty-five large flowers; and L'Etendard, with flowers nearly 8 inches acrons. Among M. Calvat's new varieties were an un-named sort, clear aulphur-yellow, very delicate Secretaire Général Ein, Fiereav, dull red, spotted with yellow; Rêve d'Or, pale, shining golden-yellow; and Madame K, Rey-Jourin, lilacy-rone. Co De B.

Exhibition of Flower Paintinge-An interenting exhibition of flower-paintinge in watercoloura has just been opened at 293 (over Equire's), Oxford Street, by Mies Marir Low, F.R.H.S., who is already well known as a clever floral artist. For nome years Miss Low has made a specialty of flower painting, and anyone who sees her work at this exhibition will be convinced of its excellence. Among the many examples of her art may be mentioned a glorious picture of a mans of Lord Penzance's Sweet Briart, which have excited no much attention during the last jear or two. Papaver orientale, with it huge carlet blooms, make a splendid picture; so also do Disa grandifiora and a group of Dr. Wallace's Calochorti. Among many other flowers represented may be mentioned Mr, A. J. Rowberry's new yellow Pansy, the Uriah Pike Carnation, Aaemone japonica, Mimular, Daffodils, Clematis, and several Orchids. The charm of Mins Low's water-colour painting lien in the softnest and brilliancy of the coloare, and the fact that she can pourtray objects in a very natural way.

New Publications.-Introduction to the Study of Fungi, by M. C. Coore, M.A., LL.D. (London: Adam \& Charles Black.) - Oher Edible Toadstools and Mushrooms, by W. Hamilton Gibson, with thirty coloured platen. (New Yotk: Harper Brothers.)

\section*{whiteley's nurseries, HILLINGDON.}

In the rapid and perfect manner which characterise Mr. Whiteley's business operations, another portion of the nursery, to the extent of \(2 \frac{1}{2}\) acres, has been put under glass, and is now occapied by a fine roomy block of housen, each 240 feet long and 24 feet wide, and by a run of commodious lean-to houses under the boundary wall. When atarted, the old block was thought to be ample, but it was not found sufficiently extensive, hence the prevent great addition, and the contemplation of covering more gronnd next year.
The block of housen, built with a view to every possible need in the cultare of the plants, by Mr. W. Duacan Tacker, of Tottenham, requires more than passing attention, for in it are aeveral new ideas in the arrangement, and in the ventilation and water-supply, most of them worked out at the suggention of Mr. G. Bethell, the ciever and
well-known manager at Whitelej's Nureeries. For exsmple, every part of the wood-wort of the interior is either grooved or throsted, so that drip is Imposible, and the throating of the heavy pitch-pine timber which forms the wall-plate of each pair of houses, as well as the water-way between them, will give a much longer life to the atructure by preventing decay in that vulnerable part. The bottom ventilation too, which is arranged by glazed drain-pipes bringing air from each end, and allowing it to pase into the house at intervals through openings carefully regalated, is another good feature. The pipes are mado to anower a double purpoee, viz., to briag in freth air, and to carry off the water from the roof. Continuou lever-gearing effects the oshes ventilatiog appliance of the houses. The arrangements for water-supply at all pointe, and for pasaing plazts from one house to another, and other labour-asving contrivances, are admirably and economically carried out.

With regard to the heating, the new block enjoy exceptional natural advantages, for the ground gradually rise from the end, where the two ets of three 10 -feet Cornish boilers are placed to the extreme end, and thus a proper flow and return are facilitated. So preaning is the demand for space, and for the atock to be got out of it, that all through Mr. Bethell hat been treading on the heeln of the builder, and even now the greater portion of the block is filled - and well filled too. Some four of the great roomy tructures contain thouenade of beautiful Palme, among which the gracefal Kentias of courme predominate, though Latanias, Seaforthia, and Coryphas are repremented in auch proportion at the Enoaledge of the demand at the great esablishment in Weatbourne Grove show: well how to regulate. Kentias are the favorrite everywhere, and in boxes fast requiring poting-off, Mr. Bethell hes something like a million coming on resdy to take the place of those now aleable.

About 14,000 aplendidly-grown Chryeanthemuma occupy several of the other large houses, and present a bewildering mans of colour in them from end to end. Only the bent sorts for market, and for cutting, are grown in quantity. Though every new one is tried, few ancceed in getting on the list of thon to grow largely. One of the bent ever tried is W. H. Lincoln, and of this Mr. Bethell has thousande, both tall and dwarf, the large plants having from eight to twenty immense rich yellow flowers; while those not more than a foot high, in 48 -pota, bear aix to ten. It hat atrong wood, fine lasting foliage, and noble flowers, which lat long, either cat or on the plant, and these qualitien constitute a fine market variety. Two aports obtained at Hillingdon are being worked up, and bid fair, viz, a bright yellow Charlen Davir, and a fine white Mdlle. Lacroix. Eynenford White, too, is a great favourite.

Azaleas, Tuberones in all stagen, Bouvardian, Genistas, and all kinds of bulbs for forcing, occapy the remainder of the houser, many of which in their season will be filled with Tomator, a commodity with which the conamer never meem to get satinfied.
In the old block, with it lofty covered arcade 300 feet long, for packing and other operations, wome twenty-six houses are devoted to Ferns, and yet so rapid is the ale of plants in mall potn that there is often a difficulty in gotting enough for potting-on. One houwe is full of all pure white Cyclamens, not one of the plante haviog a trace of colour; eeveral with Aralia Sieboldii, some with Crotons as brilliant in their coloured foliage at are the flowering platata in their blooms. In one are cores of plant of the graceful and handeome Dendrobinm Phalæaopeia Schroderianum, their fine sprayi arching all aroand, and in no part of the vast eatablishment is aninch of room wasted.

This portion is thu decribed by the buildert, Memrn. Messenger \& Co, of Loughborough:
"The west wall (to right of illustration, fig. 108) is 14 ft . high, and upon this are built the lean-to vineries, in all 650 ft . in length, and 14 ft . wide. They are divided into two block, dinconnected in the centre; but the bouses are practically eeven in number, thus divided for early, intermediato, and

Late varieties of Grapes. The wall in the foreground is ocoupied by Peach-houses (lean-to) in three divisions: total length 268 feet. The further or south wall provides accommodation for the Mowhroom-house, 180 feet long.

The main block of baildings consists of thirty-three houses, chiefly equal spans, arranged in three sections, with intervening roads. The section on the south side comprises Chrysanthemume-house (in centre), 18 feet wide; Pine-house, 13 feet wide ; and others for Orchids, Melons, stove, and other plants, each 12 feet wide. The length'of each house is 117 feet, with divisions as required for growing purposea.

The contral block comprises Camellia-house, 18 feet wide : Pine-house, 15 feet wide; Orchid-houses, Cucumber-houses, toves, and plant-houses, each 18 feet wide. These are also 117 feet in length, with divisions.

The remaining block comprises houses of various lengths, he longest being the five to the west side, which are 266 feet in length, and are built without front lights for use as stoves. These are 15 feet wide. Next comes a commodious structure or Poses, Camellis, and Chrysanthemums, 231 feet long 18 foet wide. A three-quarter apan for Strawberries, and our span plant-houses, each 218 feet by 14 fest, complete this group.

The span and lean-to pits are a feature of
he total length of them is close apon 1,450 feet.
To obtain an efficient water supply, capacions tanks puin rosswise through the centre of each group of houses. Into these the rainwater is carried, the collecting surface of course being considerable. Psovision is also made in each house for obtaining the water from the tanks.

The heating is derived from nine Trentham boilers arranged in five stokeries at convenient intervals. These can be used eparately or together as desired. There is also an ample mount of piping to each house.'

\section*{ABOUT CHRYSANTHEMUMS.}

At the Home of Flowers, Swanler,-Ia the very large house which Mears. Cannell \& Sons groap their Chryanthemam plants each antumn, it is possible to make a very imposing display, ita capacity being practically equal to the accommodation of the whole of the stock, which is itself exceedingly large and varied. Of coarae, there is no room to spare, and it has become requinite here, as in other places, to aelect with great discrimination the varieties to be grown, for the objget of farnishing blooms that may be exhibited at the varions shows, where Mesars. Cannell take their wonderfal Pelargoniume, Cannas, and other things. Space has to be found for the increasingly large number of home seedlings, and for the tenting of Continental, American, and other noveltien. In addition to these, only the very beat and newest varieties are included, and the greater part of the stock is planted out and grown quite differently for the production of healthy catting for stock parposer.
Examining the seedlings first, we were impressed by the unusually d warf character of the plantr. Mr. Cannell ham been working for some years to procure a race with lower stature then we have become used to, and to a large extent he has sacceeded, but one is prepared to find that a large-ilowering tendency, an well as varied colours, are not easily obtained for the first few years that these efforta are made. However, when good flower: are borne by seedling not more than 2 feet higb, it may be hoped that auch varietien, thould they be worthy of a place in reapect to the quality of the flower, will at least prove less in heightanother seavon than thowe that ased to run ap to the roof of a vinery at its centre. Eureka is a name given to mach a meedling. It is a white lowering Japanewe, a wide flower with broad floreto which benide alightly incarving, have alvo a kind of twist in the direction of a ring. Mrs. Oporto Tait on the seedling plant, is alno very dwarf; the flower a yellow Japanese, florete broad and slightly wisted, colonr very pleasing, Lord of Lorne in a deep gold coloar, similar to Thunberg, and Mr. Cannell thinks it may be superior to that fiue variety. Wood's Pet is a seedling from Sanflower, and is rone-coloured, the floreta droop in ringleta, and it is hoped the variety may prove a good one. Other nedlinge, many of which are as yet unnamed, were noticed in considerable quantity. New varietien by other rainers were noticed, but most of thene we have referred to on former occavions. Kentish White looked well, and was present in quantity. It was awarded a Certificate by the National Society a week or so again, and though the bloom an generally exhi bited is of modorate size only, it is very pretty, and
the habit of the plant is dwarf and good. Dacorative varieties, uch as Mr. Cannell's Centaurea, Mra Filkins, and othern, with narrow, twisted, and otherwise bizarre-appearing florets, are popular with many persons, and are no donbt very adaptable to nome kinds of decoration.

As raual, there was to be seen on this occasion an excellent diaplay of zonal Pelargoniams in fall flower, and Cannas, and other plante, intaresting and cheerfal-looking. Mumo

\section*{Chrysanthemoms, etc, at the Grange}

For several years past Mr. A. H. Smee, of the Grange, has made a practice of throwing open his gardens to his neighbours and the public generally in the autumn that they may see the Chryanthemume, and in the apring that they may have an opportunity of inspecting the orchards for which he is famons. In accordance with this castom, the garden have been once more thrown open to visitorn. The Chrysanthemums were arranged in the large greenhoute, between 400 and 500 plants being exhibited. Thir year they have been grown mach more dwarf than hitherto, und consequently the visitor on entering the house found facing him a bed of bloom rising from between 2 and 3 feet high to over 6 feet. Perhapa the most notable were Commandant Blassett, Bsanty of Exmouth, Florence Davip, President Borel, W. Seward, Mrs. Harman Payne, Mdlle. Thé èse Rey, Lord Brooke, Autumn Tints, Niveam, Dake of Yors, Gloriosum, and Madsme Cambon, which was grown from set dling raised in Algiers. Amongst the singles were Miss Rose and Mary Andorson. All the plant are strong and well grown, showing that the greateat care and cultural akill have been bestowed apon them, while the blooms are large, well-shaped, and in the fineat ponsible condition. In addition to the Chryanthemum-houne, visitort were permitted to inepect the Fern-house, which rever looked better. The Cattleya-house contained some very fine specimens of Cattleys in bloom, some Oncidiums, Cypripediams, and Dindrobiums. Wallinzton and Carshalton Herald.

\section*{WARTER PRIORY, POCKLINGTON, YORKSHIRE.}

This, the residence of C. H. Wilson, Esq., M P., is delightfally situated in beautifully andalating, welltimbered grounds, near the village of Warter. The Priory was formerly the site of a religious house, but nothing remaine but the name. Tae com nodiona modern manaion is replete with present-day conveniences of all kinds. The gardens are tastefolly laid out with flower bed, lawns, and ahrabberies, and everything about them is in perfectly good order, at befis a place of which the owner is proad. The flower-garden this year had at the time of my visit suffered asverely from a thunderatorm, and the wellfilled beds of Pelargoniums were bereft of mach of their blonoma, and all the others had temporarily suffered with the exception of two large beds of tuberous-rooted Begonia, which were, in spite of it all, a blazs of coloar. Other fine-looking bede consisted of Pelargonium Went Brighton Gem, a variety that withatand rough weather batter than som otherw ; and Mrs. Clibran Nastartium, a good thing for bedding. Soveral species of Bambusa and Palma of large sizy are among the plants effectively made use of in groups together, and as single specimens.
A plant-coneervatory adjoins the residence, and here were found Palms, Dracenas, climbing plants, \&cc., and even in the fall summer, it is kept well furnished with plants in flower. The large range of plant and fruit-houses well repaid the vinit. The Orchid-houves numbered three, and these were filled with many valuable apecies and varieties. There are two plant-stoves, two Rowe-houren, a Gardenia-house, fernery, Palm-houne, greenhouse, two houses for the cultivation of Eacharis, and four for that of Carnations ; the varieties of the latter consisting of Souvenir de la Malmaison, Winter Cheer, Uriah Pike, and others. Rarely have I observed the firatnamed in finer health and condition. The fruit-
houser consist of two large apan-roofed vinerien with Vines carrying heavy crops of good Graper, the sarietie consisting of Muscat of Alezandria, Grou Colmar, Lady Downem, and Black Alicante. Some mall lean-to's supply Early Grapan, Peachen, and Nectarinem. The Peach-housen contain splendid treen of the best varieties. Among other howem observed, mention shoald be made of one for grove. ing Pearn, Melon and Cacamber-hoanes, and tome orchard-houses. Mach work was in progrem, and alterations and improvements of variona kind andertaken. The Chryanthemum is a plant the it largely grown for decorative purposes, and the gur dener, Mr. Pike, is an exhibitor of tham; the collection contained a great number of the bert modern varietien. \(B . W\).

\section*{Home Correspondenoe.}

ENGLIBH vzrsus GERMAN CYCLAMENE.-At the grower of Cyclamens for one of the firma best known in England for their strain of Cyclamena, and roo cultivate upwards of 20,000 seedlings and old bulbe or corms every year, I think, altor reading tho article, "English v. Gierman Cyclamena," that the Eoglish varieties could not have had fall jatice during the growing period, or they certailly would not have appeared so inferior in quality as pointed cut. I myself think it would bo a very difficalt undertaking to surpam the Eoglish varieties that were grown by Mr. Schwarzburg, if they had the right treatment, mati of which were raised by the firm I am with, and car. tificated by the same at different period. I deo noted that there was a complaint about purity of colour. Nor is a pare white mentioned in the liv of Eaglish names. If they had, the following fors named varietier, Mont Blanc, Dame Blanclete Baroness Bardett Coatts, or gradiliora albe think they would have compared very favourblif with the German atrain, as all four are aplendid whites if grown to their beat. The marking of the foliage is not given mach attention in Eagland, the poins aimed at being a good sturdy plant, with quantity of flowers and quality combined to mato is sell. But if our friend over the water molid like to aee English-grown apecimens in their glory they could not do better than take a trip acrom in March and attend the Crystal Palace and Rageat Park spring ahown, and I think thes would highly atiofled that Cyc'anens can be well done in Eigland. J. N. S. [Why should not our Berine friends and some of their choicent anmplat iof comparison? Ed]
that climbing french bean. - Riferriog to the correspondence on this subject, may I ak kitay body ever anwa French Bean that did not clieb more or less, where it had the chance? or if werect any gardeners who would have a climbing Froed Bjan needing sticks to support it, when they couls have the ame Bean equally good without that exhat and uneless trouble? French Beans will cim allowed, and Scarlet Rannert, if pinched, do equally well without climbing, and are axtent sively grown that way by market-men. I andertan from what I have seen, and from read in the Gardeners' Assiotant, \&e., the French growers have French Bonse Runners) that climb from 6 to 9 , If路 seem absard to have one grower
a Pea because it does not need sticking, and puffing up a Bean for the opposite resano ; and \({ }^{\text {B }}\) would be very interesting to learn if "A. D." anyone else belonging to the Royal Horticic Society's Committees ever seriouly propou bestow an award on a Bean whose sole recomman tion was that it needed sticks to sapport Mr. Ward pats it, becanse it attsined "s " heardoof height of 7 feet! claim wee nev. A large portion of the cali climbing Pea and Bean culture is the stichis diapose of thousands of Pea and Bean rodr from the woods, at from \(18.3 d_{0}\) and \(2 s\) and per 100, according to quantity, rather fancy notions about their Scarle rown. That is the cost of sortiag ask wood, and by the time they are carried add ? to the crops and removed again in In large part of che profit, if any, is gone
of crop of Scarlet Ranners which, daring the past mumer, did not pay for the sticke and sticking, at from 1d. to \(2 d\). per 1b. I have seen from twenty to thirty long rowe of tall Peas and Ranoers, in gardens, that must have cost nearly 20 s. per row to sticktram that would have sapplied the Pess. J. S. W. [Oar usual 'cate correspondent seems to have missed the point in this case; for it is not becanse it is a climbing variety that it has found, and is likely to find, farour with gardeners; but because it is a mach more continuous bearer, and in that way tave land, aeed, and labour. With French Beans of the ordinary type, we muat sow ouce in three week from the middle or end of April till the middle of Jaly, if a good succession of tender pod is to be obtsined; whilat with this new Basn twice or thrice would saffice. It is a moot question if this Ranner Kidney Bean would not be profitable as a forcer. The chief danger to be apprehended would be, of course, the entire lons of the leaven from red-spider. We can insert no farther correspondenca on this nabject. ED.]

ROBA RUGOBA FOR GAME COVERT.-Daring the past two wintera we have planted mall patche

APPLE8: THE TRUTH ABOUT PRICEB-RIBSTON AND COX's ORANGE PIPPIN.-I heartily thank the ensayiat for hin obliging reply to my inquiry an to the low-placed price occapied by these two fiaest of our deasert Apples. I had the most perfect faith in his quotations, and had a arewd suspicion-confirmed by his lacid explanation-that it is bat another case of ize, colour, bulk, over-riding quality. It must be borne in mind that the essayiat is here writing of marketing and making wolid profit out of Apples, and mont growers will readily allow that Yeasgood's Nonsach at \(28 s\). per cwt . will fetch more m nay per acre than Cox's Orange Pippin at 308. percwt. The more's the pity! But then pity will be a long time in moulding pablic taste or controlling prices by quality alone; though ponibly as raw Apples get to bo more eaten food, ach plendid norte as the Ribeton or Cox's Orange Pippin will command auch high prices an to render them the most profitable market Apples. Meanwhile, however, it is very discouraging to hear on ach high authority as that of this able essayist, that he has never yet been able to make a profit on his Ribatona, either on the Paradise or free atocks. I had hoped that the Paradise stock root-pruning improved culture and training would
price that Peagood's Nonnuch and Warner's King, we thould no longer have our market growers and writers asuring us that they could no longer grow our beat densert Apples at a proft. I hope no one will aname that the Applen named are necesamily on all sites and soils the beat of their clan for eating or cooking. In any attempt to get prices controlled by quality, I thought it wise not to bave the issue confused through comparison of the merit of contending varieties. D.T. \(F_{\text {. }}\)

THE JUDCING OF VEGETABLE8 AT \&HOW8.We seem sadly to want a national code of rules for jadging. Might not some pablic body such as the Rayal Horticultural Society, for example, compile uch a code? It mhould take each vegetable in the order of ite utility, and atate the number of marks to be given it, allowing for quality, cleanlizess, staging, \&c. It such a atandard were formed it woald be of the greateat eervice to jadget, particularly as in a case I have in my mind, where the judge was a traveller and not a practical man. I wall be greatly plesaed to hear that such a code is available, and that I have overlooked it. W. H. Patterson.

Vale of Cleveland and bharpe's victor pOTATO8.- For nome years we have grown Vale of Cleveland Potato, and we have no hesitation in pronouncing it to be identical in every reapect with the yellow-fleshed Sharpe's Victor, and this opinion has been confirmed from time to time by Potato expert who have seen the two varieties growing side by side in our trial gronnds. We procured Vale of Cleveland direct from Mr. Sbort, of the Seed Stores, Market Place, Stokesley, and the informed us that her late huaband sold the whole stock, excepting a few mall tubers, to Mesirs. Chas, Sharpe \& Co., of Sleaford, and that he claimed that Sharpe's Victor, when it appeared, was in every reapect similar to his own Potato. Admitting this to be so, it is quite evident that to the late Mr. Geo. Short belonga the honour of having first raised thi distinct type of Potato, which pomestes all the good qualities of the variety now wo well lnown in commerce a Sharpe's Victor. It in a singular coincidence that two bybridieer thould have raised seedlinge the characterintic of which are identical bat from entirely different parents, and it is somewhat remarkable that Meners. Chas. Sharpe \& Co. whould have become the fortunate possensore of them both; for there can be no doubt that amongut the very earlient varieties of Potatos, Vale of Cleveland and Sbarpe's Victor probably have no rival. W. W. Johmon \& Son, Boston.

With reference to Mr. D. T. Fith's letter in your colomns recently, allow we to ay that the confasion referred to appears to arise owing to the variety of the Potato introfaced and atill known in the name of Albert Victor, which ban a white fleth, being confused with Victor, better known an Sharpa' Victor, which has a jellow fleah. Cultivator.

PEACHES AND NECTARINE8.-I can fully endone the mound and opportune remarka made by Mr. Markham under the above heading in the Gardeners' Chronicle for September 28, F. 370. Peach and Nectarine treen are easily enough grown in 90 per cent, of the garden in Great Britain and Ireland, Where the necessary wall or fence pace is available for training the trees to, alwaye asuming that the caltivator has a practical knowledge of the requirement of the trees, and that healthy kindly-growiag treen, true to name, are obtained and duly planted in good-sized well-drained holes, using sound fertile loam as a rooting mediam. The observance of the above aimple bat most important pointa is aboolutely necessary to attain to success not only in the calture of the Peach and Nectarine, but almo in that of Plami, Peart, Applew, de. All that in required after the trees have been selocted and planted in the manner indicated is to keep them porfectly clean and the ail sbout the root uniformly moint. The growthe thould be trained thinly rather than otherwise over the apace allotted to each individaal tree, diabadding freely at ahort intervale, as advised in Mr. Markbam' oxcelleat note, after the wall apace has been furnished, which, atarting with maiden trees, may be accomplished within few years from the time of planting by following the extenvion yatem of training. Tais connista in not cutting bact the young growth to within few inche of their basen, as uad to be the pracica, and is atill done in many placet, at praning-time the firat year after planting-that is, in twelve or foarteen months from that time. This in how it in done. In the ordinary way, the trees are planted as noon at they
have been received from the nurrery, fteer the fall of the leaf-say, towarde the end of November. The
young shoot, whether two, three, five, or seven, young shoot, whether two, three, five, or seven, are secured loonely to the wail to admit of the
freath soil setting down a little, as well as retarding the flowering period. Early the following Febraary, as soon as the arp beginu to rise, bend the unpraned shootu toward the ground, and secure them to the wall with nails and shreds in that poition, the bend starting from the point whence the firtot of the young thoote is desired to proceed - \(A\) ay, 4 or 5 inches from the bottom of the individaul shoots. The check thas given to the flow of anp caunes a sufficient number of wood-buds to parh from each ahoot to form a good-aized "fan- alapped" tree the frat year after planting. Of courae, as soon as
the bade nearest the base of the individual shoota mo treated have puashed into growth, the naile should be drawn, the shoots-main shoots-apread out on the wall, in the form of a hand with distended fingers, and necared thereto with nails and shreds, learing aufficient room in the later for the develop. ment of the branch, the young shoots indicated above being trained at proper dittances over the intervening apaces. Treer of Crimaon Galande and Dgmond Peach, and Dryden and Humboldt Nectarine, planted a few yeara ago and treated in the manaer described above, have completely farnished the trellis fixed to one of our highest ( 12 feet) walle out-of-doors, and planted at the usual diatance from one another, ripened this year twelve to forteen dozen good-sized fraits on each, which were the admiration of all who saw them. I merely mention this to show those readers of the Gardeners' Chronicle wrong view of Peach culture out-of-doorn, what good returns may be essily secured from Peach and Nectarine trees in two or three yeara from the time of planting by following the extension aystem, which I have more than once advocated in the Gardeners' Chronicle. The crop, taksing thirteen dozan fraits as the average for each of the four trees, and at the moderate price of \(4 s\), per dozen, would be f10 8e, not by any means a poor return for the inatial outlay, space of wall ocecupied, and labour incurred in training, 8ce. That the Peach and Nectarine will grow and flourish planted agninat walls having south, west, and east aspects I have the most conclusive evidence, the only difference being in the time of ripening; the same variety planted in all the aspects indicated wonld yield a pretty good anceession of ripe frait, those ripened on the east and west walls possibly might not bs quite oo good in Alavour as the fruit ripened against \& wall having a soath aspect. Like Mr. Mark ham, I have formed a high opinion of the Early Rivera Nectarine. It is agood grower, and apparently a free bearer, the fruit being unusually large, of handoome appearance, fine quality, and very early in ripening. Inconclucion, I may ay that the present is a good time for traapplanting young trees which have been grown for a year or tmo in available apacesbetween those permanent trees which have not quite furnished their allotted space; liftiong them with good balle, they experience little, if any, check in being tranaplanted into their permanent positions, and time is afforded for the roote to push into the new soil before the trees shed their leaves. Trees so planted gain time, and have decided advantage over trees planted after the fall of the leaf. H. W. Ward, Longford Castle.
TIMBER \(v\). aAME. -1 am rather puzzled by Mr . Foote's dititinctions, p. 582, between practical and technical knowledge, and to learn that employere io not want the lateer. I thought technology consitted of the application of entablithed principles in the arto and crafte, and conotitated intelligent practice as opposed to "rule of thumb;" and I mate say I never met with an emploger who would not have preferred a technically-trained forester or gardener to one of the mimanamed "practical" type. As to woods and game, they can be anceessfally combined, exeept in the case of rabbita in young plantations. It ia quite easy to plant a mixture, or pare forest of good timber trees, for a crop, that will shelter game, provided the thinaing is not over-done. Pheasants want mont protection. They will not atay in winter in \& wood which the wind blowat too freely through, bat a forest of bare poles will break and mobdure the atiffote gale that ever blew if
they atand thick eno they ytand thick enough on the ground. Everyone knowe this who hat atood on the leo-idide of a Lerce plantation in winter, thick, but one which you can tee
through The that atakes or trees break the wind in the same way that tataket or stones driven in, not fat amander, will
break up the motforioue torrent into

I have jaut been making a trout-atair on this principle to enable the fish to climb a kind of caccade. Emplogers rarely object to follow intelligent advice from their foresters whom they expect to undertand their buyinest, as a matter of course. What is most needed among owners of estates is a better aystem of managing their game in conjunction with their woodn. We want more pheasants for the gan and fewer rabbits. Keepera never have a sufficient number of pheasants, and if a rabbit or two is not frequently popping ap between the pheasantes, sport tlaga; hence keepers will not kill rabbits unlets forced by some one who can tep in and take the daty of their hands, and that does the business. Then your keaper will act; if a woodman with a gun, dog, and ferrets has the mere authority to step in when and where he choose, if the frepers
fail. This jaut works a miracle on our friend in velveteen. There are no objections to pheaanats, but the aystem of hatching is deplorable. Given a fair covert with a sufficient atock of cocks and hens to begin with, I would undertake with woll-regalated ahooting, to crowd any wood or antate with wild birde permanently in oae year. Bat what is done? All the early eggs are picked up in large numbers, perhaps every season, and as many more bought to put under hens ; and at the shooting season about one or two birds may be to every dozen egge bought all to the gun, and often not so many, so great is the mortality. I know of the record on a number of eatatas, and this statement is no exaggeration. Rabbits have to be preserved to make up for the pheasants, and the woods have to be kept quite for theene, and the woodmen baniohed for the greater part of the year in order not to distarb the game. If gentlemen would put down atock for wild-nesting in the firat inotance, and simply let their keepera know that game would be expected, and the woods looked after at the ame time, they could, by nome proper arrangement of the work, then have plenty of aport, and also timber. My advice to foresters who cannot secure something like the above conditions is to do their duty as far as circumstances permit, and to view the damage done by the game with philosophic equanimity, always taking good care to let the damage be easily neen by thone who have to pay for it, and to have the said regularly estimated and sent in to the game department. A correct debtor and creditor account againat the keeper in one of the best methods I know of for keeping the sabject warm," for the proceass is one "velveteen" cannot stand, but it bas opened the eyes of some employern. All game-keepers, I contend, should bs under the control of the foreater. S., The Woods.

PACKING COMPETITION AT CRY\&TAL PALACE sHOW. - I was much interested in this packing competition, and I quite endores whas Mr. Harria says respecting the judging being intrasted to Covent Garden salemen-one would be enough. I did not attend at the Palace thin year, but what I saw in 1894 convinced me that a alemman would be the bent judge, and I expresed this opinion as the time. I do not refer to the Grapes, but to the Puaches and Pears, which were nearly hidden from view by the man of material used, and which 1 considered was quite unnecesary, whether they were intended for market or private use; and an one of the jadgen, p. 555, nayw, he and his colleagus found but slight drance over latityear, I may conclude that what I anw lant year wat mimply repeated. In the month of Auguat last, I was in Covent Garden market, and at the atall of one of the leading salesmen I was looking at the Peaches offered for aale, packed in a mane of cotton-wadding, wome over-ripe, and the wadding clinging to the bruied parts; and I said to the malemsn's foreman, "You cannot sell stuff like this." Him reply was, half the fruit sent into the market is spoiled by bad packing. Cotton-wool is not now used by growers to pack Peaches for market, neither is moss, and no aleaman would look with admiring eyes upon any exhibit which was packed in either of those materials. Wood-shavingare recommended by some, and they are cortainly very elatic, in fact, too much so, and there is an odour on opening a box of frnit packed with them that is not at all appativiog; 10 growern use for packing Peaches, finely cat white tiasue paper, which can be bought for \(£ 1178\). Gd: per cwt., and 4 oxs. Fill back box of twenty-four Paachen, costing a little over 1 d . To prove thin, I have this year grown and packed 15,000 Peachem and Nectarinew, and used 14 cwt. of paper having in packing. Our modus operandi is to aske a handful of well-teased thavings over the bottom of the box, take the fruit in the left hand, and with the right
sufficient to keep it clear of the box; when placed firmly in it repeat the procerm until the box in fall, taking care to keep them premed tightly together a the packing progresses. When fall, place s shest of tissue paper the size of the box over all, now shek enough well-teased ahavings on the paper so that when the lid is put on the shavinge are slightly premed upea the fruit; should the box be too deep, ase clean well dried moss or grass, filling up the space firmly before haking on the shavings, and so high that the froite when packed, are nearly level with the top of the box, only requiring a few shavinge to keep them in
position. By thi method of packing, nealy position. By thi method of packing, nearly ono
half of the fruit is displayed, so that buyen cas mo the aize, colour, and condition without touching it The boxes are tied threes or twos together, and wat bp van 5 miles to the railway station, orer rowls and under conditions that would make a narrou to Manchester, i.e, about 150 miles, and not one complaint has reached ut this year. Single boze are more liable to injury than when two or three are tied together, bat we send Peachen to all para in large and mall boxes, aingly, and by rail, and post, without the least bruising-using boxes sdaphed to the number of fruite to be packed into them, wo that firmness is premerved, which is the great emono tial to successful carriage. The time taken to puek a box of twenty-four fruit is about five minaten. I
grade and pack 60 dozon in three and a half houn, and this quantity I do almost daily during the buar eason, the largest number sent sway in one weel being 333 dozens, and the largest number in one day 131 dozen. Wm. Armstrong, Ioddington Orchard Co

\section*{SOCIETIES.}

\section*{ROFAL HORTICULTURAL,}

November 26.-The usual fortnightly meetiog d the Sociaty was held in the Drill Hall, Jame Street, Wentminater, on Tuerday last, when an interesting exhibition wa made, albeit the hall wu lesf full than on some previoa occasions. Cbryamthemume again conetituted one of the more importast items, and there were several novelties recognined by the committee. Orchide were not numerous, neither were frait exhibits, but there wat a large collection of Applen and Pearn, and another of vegetablen.

\section*{Floral Committee.}

Present: W. Marshall, Esq, in the chair; nil Menars. Jno. Fraser, Jas. Walker, H. B. May, H. Horbst, R. Dean, Gzo. Stevens, Jo If. Fith, Che Jefferien, J. D. Pawle, Chaw. E. Shea, J. W. Buri, Chas. E. Pearsos, Ed. Beckett, H. J. Jona, Gm Nicholson, Geo. Gordon, C. Blick, and Rvv. G. it Eagleheart.
A group of Rose trees in pots formed the exhibit of Mamb WM, Paul \& Son, Waltham Cross Nurseries, Hena,
variety was Enchantrese, described as a new wintor variety was Enchantrese, described as a new beddiag Rose, a hybrid between China and Tea-scentad and Some very free-flowered sprays were also shown, committee recommended the variety an Award of Ment. bloom is white, with lemon flush, but in the bud somin pleasing tint of fresh aalmon or pint (Silver Banimin
Mesgrs. Jno. Laing \& Sons, Forest Hill, Londan alim exhibited a plant of Dracsena Lentiginosa, with loag a
leaves, of good colour. Also Calamus Palembanicuss,
Mesgre. Jis. Veitci Sons, Royal Exotic Muspery,
Messre. Jas. Veitch sons, Royal Exotic Nuysery, do again exhibited their Javanioo-Jasminiforum hybria dodendrons, but on the present occasion the in plat cut blooms shown last time. Messys. Verter also plant in flower of Begonia \(\times\) Mrs. Heal, which wo reme plant in flower of Begonia \(\times\) Mrs. Heal, when Ensimp figured, and a variety of a similar strain named Meda) larger leaves and paler flowers (Silver Bankian M. W. Yous
From the Botanic Gardens, Glasnevin, Mr. Fo sent foliage and flowers of Sphæralcea umbelata (Hite form! bellata), a stove shrubby plant with Malvalite ton bright violet ; native of Mexico.
H. Gurining, Esq. Harrow Weald House, stanmen fin Mr. Repley), showed a plant of the vary old Canarins lata, a greenhouse herbaceous perennial with curper flowers of a curions shade of orange-purp
interesting, and not frequently met witho . Nomplow
Mr. J. Orawford, of Cod lington Hell Gardens, Xom Trent, sent cut blooms of Carnations. A handrome Begonia in flower was exhibited of m' Bewnett Pok, Eoq., Holmewood, Cheshunt, Leaves were nearly a foot across, handsome on under surface, the veing very conspicuous by re pale colour contrasted with the deep, but bright, bearing upwards of thirty flowers nearly? boaring upwards of thirly flowers acalo
ance of the plant in the hall was distinet and fine, and it probably excited more intereat than any other exhibit.

Cifrisanthemums.
Mr. R. Owex, nurseryman, Maidenhead, had a collection of new varieties, A wards of merit being made to the following:Country of Gold, a small Primpose-coloured narrow-petalled variety, very free, charming in sprays, and promising well for market and decorative work. Mra. Ellen Newbold, a pale yellow reflezed Japanese, broad petalled, of good size as a
decorative variety, and pleasing shape. Another promining decorative variety, and pleasing shape. Another promining
market flower, and incurved, Bonnie Dundee, having, in a true market flowar, and incurved, Bonnie Dundee, having, in a true incurved form, the oolours of Lord Brooke, but less of reddish-
brown and more of gold, a charming exhibition variety. In addition there were Oceana, a broad-petalled flower of the Viviand Morel type, white, with a delicate pink suffuaion: Walter Owen, reddish cerise, with a bronzy-yellow reverse, but rough asshown; and General Roberts, \&ce. (Silver Bankesian Medal).
From Mr. Welis, Rarlewood, Redhill, came incurved Sir Trevor Lawrence, a very promising white flower of the Queen Wells. As the Floral Committee declined to say whether or not it was a true incurved, no award was made ; and Major Bonnaffon was similarly treated, as no pronouncement was made as to the particular class, though recently shown in From Mr. W. Slogrove, variety. Reigate, came a grandly-formed and full incurved golden yellow Japanese, named William Slogrove, a flower of great refinement, which will make a very acceptable exhibition variety (Award of Merit).
From Mr. H. J. Jones, Ryecroft Nurseries, Lewisham, came anemone Japanese Surprise, pale lilac-pink, with faint stripes of purple (Award of Merit); Major Bonnaffon, in fine character; Mrs. P. Purcell, delicate purplish-pink, with ailvery reverse, a rery novel incurved Japanese; and Olive Ochree the golden florets with a bronzy revarse, much incurved, and II. Brisiscor - Irovside, in character (Award of Merit). Mr. M. Briscor-Ironslde, Burgess Hill, bad nome seedling Pompons, but to all appearance partaking too much of a mixed character; and Neve, a white Japanese of a decidedly promising character, if it can be grown large enough. Mr. W. Jukes, Weybridge, had Japanese Mrs. W. Maling-Grant a promising variety, a mixture of yellow-salmon and bronze ; a handsome reflexed variety. From Mr. E. H. Jenkins, Hampton, came a fine and showy yellow Japanese, Golden Dart, which was recommended an Award of Merit as a valuable market and decorative variety,

\section*{Orchid Committee.}

Present: Harry J. Veitch, Esq,, in the chair; and Menart. Jan. O'Brien (Secretary), T. B, Haywood, S. Courtauld, Dr. M. T. Masters, E. Hill, H. Wil-
liam, E. Ashworth, W. H. Protheroe, T. Statter, F. Hardy, J. Gabriel, H. J. Chapman, W. H. White, C. J. Lacas, J. Duaglas, and H. M. Pollett.

The meeting was a thin one so far as the exhibits were concerned, the only group of any extent being staged by Mesars. F. Bander \& Co., St. Albans, and for which they received a Silver Banksian Medal. The body of the group was composed of fine examples of beautiful hybrid Calanthes, varying in colour from cream and rose to purple. Among them
were \(\mathrm{C} . \times\) Bella, C. \(\times\) Florence, \(\mathrm{C}, \times\) Wm. Murray, \(\mathrm{C} . \times\) were C. \(\times\) Bella, C. \(\times\) Florence, \(\mathrm{C} . \times\) Wm. Murray, \(\mathrm{O} . \times\)
Bryan, \(\mathrm{C} \times \mathrm{Cl}^{2} \times\) Clive, and C. \(\times\) Harold, An intereating plant in Messrr. SAMDER's group was Phaio-Calanthe \(x\) Berryana (P. Humblotii \(\times \mathrm{C}_{\text {. Masuca), and which had bright rose- }}\) coloured flowers, with singular- shaped labellum, in which group were Phaio-Calanthe \(\times\) Arnoldiana, Pescatorea Lehmannii, P. Klabochorum, and the white Bollea Schroderiana, the rare Dendrobium Leeanum, Aganisia ionoptera, Angreecum polystachys, Brassia Lewisii, Leelia autumnalis alba, Habenaria Suzannee ; Sophronitis grandiflora, Odontogloesum Bictonense albuma, Miltonia Schroderiana, some fine hybrid Cypripediums, and the singular Bulbophyllum crassipes.
To Meegrs. Linden, \({ }^{1}\) 'Horticulture Internationale, Parc Leopold, Brusells, fell the honour of taling the only First-Class Certificate at this meeting, its award being secured by their richly-coloured Catasetum imperiale, about which opinions differ as to whether it is a crimson-purple C. Bungerothii, or a richly-coloured form of the variable C . \(\times\) aplendens. In any rase, it is the most gorgeous Catasetum known (see Gar deners' Chronicle, March 16, 1895, fig. 44). Mesors. Livden also showed cut spikes of their form of Cattleya maxima.
Sir Trevor Lawrence, Bart., Burford, Dorking (grower,
Mr. W. H. White), zent a very fine hybrid Cypripedium raised Mr. W. H. White), sent a very fine hybrid Cypri pedium raised
between \(\mathbf{C}\). Stozei platytreniumand \(\mathbf{C}\). concolor, and named \(\mathbf{C}\). \(\times\) platycolor. It had an infloreacence of three flowers and cue bud, the flowers equal in size to those of C. \(\times\) concolawre, cream white, flushed with rose, and with minute parple dots on the sepals and petals (A wand of Merit). Sir Trevor LawREwCe also showed Arundina Philippi, a slender plant with terminal sprays of rose flowers with crimson lip, like amall A. bumbusefolia (Botanical Cortificate),
Tros. Statter, Reqo, Stand Haul, Whitefield, Manchester variety, with Johnson), sent Cattleya aurea Marantina, a fine and sepals, over which spresd gold-veined lip, and yellow petals being marked with roeread a coppery hue, the petals aleo being marked with rove colour in a very effective manner
(Award of Merit); and Cypripedium \(\times\) plumosum (barbatum \(\times\) cenanthum superbum)
Mesars. Jıs. Veitcre \& Sons, Royal Exotic Nursery, King's \(\times\) Wullimio-clinge, and the theo singular hybrid Epidend rum
derived. On this oocmion it secured an Award of Morit. Meesrs. Voitch also showed the pretty Melayan Deadrobium Certificate).
J. W. Temple Etoq.e Leyswood, Groombridge (gr, Mro K. Bristow, ssant Cattleya \(x\) Misa Willisms (Harrisonie \(x\) labiata Gaskelliana), with pretty rosy-lilac flower, with crimson blotch on the lip; and C. Labiata, Temple's variety frae in form and colour
G. L. Palmarr, Eqq., Springfield, Trowbridge (gr., Mr. Ohas. Richman), sent Cypripedium \(\times\) Madeline (bellatulum \(\times\)
Argus), with yellowish-white flowers apotted with purple, Argus), with yellowish-white flowers, spatted with purple, and tinged with lilac (Award of Merit); also \(\mathrm{C} . \times\) Dibdin C. \(\times\) Seegerianum, and other hybrids.
C. J. Lucas, Ksq., Warnham Court, Horeham, showed Cypripedium \(\times\) Warahamensis (Curtisii \(\times\) philippinense). Sif Frenerick Wigni, Clare Lawn, East Sheen (gro, Mr. W. H. Young), showed fine cut examples of Epidendrum (Barkaria) Lindloyanum and Leelio-Cattloya \(\times \mathbf{W m}\), Murray. Mr. Aribble, gro to the Marchionees of Londonderry, Plaw Court, North Wales, sent Leelia anceps.
Messrs. Hugh Low \& Co., Clapton, showed Oacidium hematochilum, Phalænopeis Bry
some pretty Cgpripediums, \&c.
Stanley Clark. Eeq., Oak Alyn, Wrexham, sent Cattleya Trianeei Mrs. Stanley Clark, a noble form, with rich crimsonpurple lip, and a feather of the same colour on the petals.
F. W. Moore, Rsq., Royal Botanic Gardens, Clasnevin, Dublin, sent an extraordinary Calanthe (named provisionally F. W. Moore), with a fine head of lilec-purple flowers, which on reaching maturity, become light rose, the lip changing to bronzy-gellow (Botanical Certificate); Masdevallia Chimeera bronzy-yollow (Botanical Certificate): Masdevallia Chimeera
aurea, in which the flowers have large patches of clear jellow aurea, in which the flowers have large patches of clear yellow
on the sepuls (A ward of Merit); Odontoglosum preastans, and on the sepals (Award of Merit); Odoatoglosum preestans, and
the pretty Phaius Bernaysii, from Fiji, with white flowers the pretty Phaius Bernaysii, from Fiji,
with chrome-pellow face to the segmenta.
T. W. Swinburme, Kaq., Corndean Hall, Winchcombe, nent Cypripedium \(\times\) Walleertianum (Harrisianum \(\times\) villosum).

\section*{Fruit Committee.}

Present: T. Francis Rivers, Erg., Chairman and Mears. H. G. Pearson, Jas. H. Veitch, Jon. Cheal, J. Wright, Alex. Dean, J. W. Bates, Goo. Wyther, Jas. Hudson, H. Balderson, G. Reynolde, Gso. Norman, Robert Fife, and Philip Crowley.
Exhibits of fruit were few. The largest of these was a collection of Apples and Pears from the Lowield Nurseries of Messrs, J. Cheal \& Sons. Crawley, which included 100 dishes.
The moat attractive of the Apples, by reason of their large size or good colour, were Blenhoim Orange, Ribston Pippin, Alfriston, Jabllee, Now Hewthornden, King of the Pippins, Peargood's Nonsuch, Cor's Pomona, Horeford Beofing, and Bis marck. of the last-named, excellent fruits in regard to both size and colour were show, whilst their fresh-looking appearsize and colour ware show, whilst their fresh-looking appearance proved that they will
(Silver Knightian Medal).
There were several exhibits of seedling Apples, including Stubb's Seedling, a Quarrenden-like fruit, but a good keeper also before the committee on a pravious occasion. The committeo resommended an Award of Merit to this variety, the exhibit of Mr. W. PA LMER, Andover; and requested that Mr. E. STEW \(\perp\) RD, 57 , Carriugton Street, Nottingham, whoex hibited fruits of a pale yellow variety with russety spots and blotches, fruits rather flat-looking, with deep eye, would exhibit same on a future occasion.
A variety named Palmer's Favourite was shown by Mesara Jno. Laime \& Sons, Forest Hill Nurseries, London, Sow.; and another one named Christmas Pearmain, was ohown by Mr. Geo. Wrters; and a double Apple, caused by the fuaion of two fruits, was from Mr. E. APPLIBT, Dorking, Surrey.
Mesars. Lane \& Son, Berkhamsted, exhibitod excellent specimens of their Apple Lane's Prince Albert, gathered from trees in the open orchard twenty yeary old (Vote of Thanks).
Mr. Jno. Crook, gr. to W. H. Evans, Keq., Forde Abbey, Chard, showed a dish of amall red Plums, of the variety Coe's Late Red.
A Tomato of the Perfection type, named Nield's Seedling, was shown by Mr. W. Nield, Horticultural College, Cheshire, and was referred to Chiswisk for trial.
dieh of Jerusalem Artichokes, Vilmorin's New White was shown by Mr. Wythes, and also a dish of Wythe's seed ling Poksto, a kidney, from a cross between Myatt's Prolifie and Beauty of Hebron, said to be ready for use nine week after planting, and of good table quality (referred to Chiswick). Bine with fruits of Tomato, All the Year Round, certificated in April last, were exhibitod by Mr. Fars, gr. to A. Prars, Esq., Spring Grove, Isleworth; the exhibit well represented this variety's free bearing qualities in November.
Earl of Peroy, gyon House, Brentfond (gr., Mr. G. Wythes), supplemented his previous exhibits of regetables by another another one consisting chiefly o: green krinds, which included about forty sorts of Brassicas, some forcod Asparagus, alco Syon House sad Veitch's Improved Telegraph Cacumber, and some Moush and Veitueks in several varietios were commendable. Mushrooms. Leeks in eeveral varietiee weer commendave
Veitch's eelf-protecting Broccoli, the green curled Savoy, Veitch's self-protecting Broccoli, the green curfed savoy,
Cottagera, Asparague, arctic and other varieties of Kales, and Coleworts, were all represented by meritoriozs produce. Ot Braseels Sprouts we noticed Veitch's Exhibition and Sutton's Dwart Gom, the latter as being a short-stemmed variety, thickly furnished with mall close spronts from base to aper (Silver Knightian Medal).

\section*{Lecture on Asparagus Culture.}

The lsoture in the aftermoon wat apon Asparagus culture. by Mr. Jas. Mason, a market a rower. After briefly alluding to the botanical affinities and characteristics of the plant, as well as ite native habitats, the lecturer declared that after cultivating the common Aeparagus for many years, he was mpreseed by the fact that Briturh growers allow far too much foreign-grown produce to be imported into this country. English "buds " were admittedly less in size, but they were of undoubtedly better quality, and aufficient ought to be produced to supply the London market entirely. This delicious vegetable was convenient to the growes in regard to seading it long distances, beiag easily packed, and of comparatively inaignifloant weight.
In respect to propagation by means of seede, Mr. Mason had reveral points to insist on with emphasia, seed should not be sown in the autuma, nor in May, ta some growers have advocated; but in March, preforably towards the middle of the mon th, or when the weather was sufficiently open. The reeds were some little time before germinating, and if sown in autumn were very liable to rot; on the other hand, the ground was unaally too dry during May for them to germinato at freely at was desirable. Seed should be sown in drille about 1 foot asunder, sown rather thinly, and afterwarde the plants thinned to 4 inches or more apart. Before sowing, the land should have been given a winter's good cultivation, by well trenching, and afterwarde thoronghly pring it. The aim should be to secure really hard, atrong produce sufficient plants to plant an acre of land the foed would produce sufficient plants to plant as acre of land the following year. In regard to land, the Asparagns was not very fas-
tidious. The soil generally near the coast suited it well, if there was sufficient depth. Indeed, any soil of good texture and sufficient depth was sufficient, providing the same was porous. The last-named condition was an essential one in any case. Rough, wet land would always be unsatisfactory. When the seedlings are above ground, the surface of the land ehould be hoed, and some weak manure-water given to oncourage as good growth as poosible. Planting should be done the following apring assoon as the " buds" began to move. It wae best to select the strongest plants, and leep them to themsolves, thus obtaining even bed. Only one-year-old plants should be used, and it was better to now reed as advined, and then replant, than to sow, and thin to the distance required in permanent beds.
If green Asparagus was required only, the crowns need not be deep, about 3 inches of soil and mulching being quite surficient; but there were several advantages connected with the deep-earthing system. It was a protection from frost, and from the light, and atmosphere. The buds were much better also. Mr. Mason would advise a medium course by patting good manure, mat chould be srowing. proforally duriag the monthe June, July, or Auguat at the rate of 5 or 6 owt. per acre. If the beds were well may last twenty, thirty or even forty gearen afterwards, they never be cut after midsummer, how forty years. Buds should induce the formation of small, howerer, or the practice would If it was wished to cut Amparagus for the following season. be cut from a portion of the land only. the cot date, it should be cut from a portion of the land only: the crowns would continue to produce bude until Soptember at least, and it would well to throw those crowns away.
The French method of culture was then nlluded to, Mr. Mason saying that the Erench growors planted at greater distance apart, at greater depth, and obtained larger but fower "buds " per acre than English growers. Asparagus sbould be cut carefully, and a proper toothed knife always used for the purpone. Assoon as the "buds" were about 2 inches above-
ground was the best time to cut them. In conclusion, the lecturer said that cottagers might easily cultivate Asparagus if they so deaired, and thus secure for their tables the fineat of all vegetables.

\section*{ULSTER HORTICULTURAL.}

Novembre 12.-The above society held it annual Cbryanthemum, fruit, and vegetable ahow on the above date in the Great Hall, Belfant. The unual enthuiasm wan more manifest than ever, probably by reason of this being the finest show ever seen in these parts. The exhibit were of high order of merit, and their number more than doubled thone of 1894.

The rockwork set up by Mr. MCKIMM, Ourator of the Belfast Botanic Cardens, was a great point of attraction for visitars. The ahoes of water, the bridge whif ch could be cromed, the great variety of folizge plante, hardy and exotic, made meo of, and the noble Palms, the Ferns, and other plantaso genaromaly made use of, appeared to afford much pleasure.
Close to this exhibit was, in a cultural nense, a grand diapley of exotic plants from the gardens of J. B. HoUsTon, Exq. Orangefleld (gr., Mr. Gras). Of this colloction, Codiaeums (Orotone) formed the larger part, and their leaf-colouriag wat very fine. Interspersed with theoe were Palms, Fern, Ficus, and Dracsenan, and an edgiog of Ivy and mon gave the whole an appropriate artistic flaish.
Pasiog long linew of Roman Hyacinthe, Mignonette, bouqueta in great numbers, Carnations, and table plante, the onlooker came to the exhibits of Messre. H. DICKson, viz. foliage plants, both hardy and exotic, in great variety, flowering plants, Conifers, and hardy thrubs, to which a lot prize was awarded. Other varied and attractive groups came from the The Pames Commriter went their quota, consiatiag of
grand groups of pot Chrysantherchums of somewhat dwars habit, of good width, with vigorous foliage and fine flowers, Mr. Mahappy, the gardener, holds a leading position as grower.

\section*{Cut Blooms.}

The Countess of Pemproke, Mount Mertion, Dublin, was 1st for thirty-sir cut Japacese varieties, a capital lot containing many ercellent new and old varieties. T. H. Torress, Esq., was 2nd with a capital lot of rather lesseven character than those which came from Mt. Merion. J. G. Smallman, Eeq., was 1gt with twenty-four, his flowers of Viviand Morel, A. Perry, and Nivenm, being extra fine ones. Many fine exhibits were noted in the smaller classes. The Countess of Pembroke was easily 1st for six white blooms ; and J. RoGERS, Esq., for sis yellow ones, consisting of finely-grown blooms of Sunflower
Twenty-four incurved blooms were well represented, Golden Empress, Princess of Wales, and Lord Alceater being the more prominent ones for size and fineness. The six blooms of Japanese and six of Anemone-flowered varieties were of much merit, eapecially the latter. The names of their owners we were unable to discover. A weak point in these shows is the withholding the дames of the cultivatore.

\section*{Fruit.}

Among the leading exhibitors of fruit were General O'NetL, Lord Downshire, and General Pakentin. The trade was well represented by fine collections of Apples and Pears from Messes. Rivers \& Sors, Sawbridgeworth; Messis. McGredy (Son, Portadown ; Mr. Geo. Dickson, Newtownards, and others. Alongside on the tables were about 700 dishes of bril-liant-coloured Applea, and many dishes of generally good Pears, and an extra large display of Potatos. In at least two of the competing collections an exhibitor defeated his chances of success by dusting a white substance over his tubera-and was disqualified.
In the Grape classes, Lord Downshire (gr., Mr. Bradshaw) took the lead, and received a special award for a collection o lour varieties. Lord O'Neil's and Mr. Johnston's gardeners were well to the front in the choice fruit classes.
Lord Anyesley was a leading exhibitor in the vegesable classes. Knormous Leeks and heads of Celery in great quantities, and good Cauliflowers, were the vegetables which were the finest in quality. The Parsnips and Beet wero too large and coarse for ordinary use.

\section*{TWICKENHAM CERYSANTHEMUM.}

November 19 -A thorough representative show was held on the above date at Twickenham. Chryeanthemum were the chief feature, but other exhibits were alao numerou and good. There were only two competitore for the prizes for groaps, but each of these made good diaplay, which combined quality in the plante with effective arrangement.
The best came from Mr. Riclewood, gr. to Lady Freake, the blooms in this case being the finer; Mr. G. H. Sage, gr. to Rayl Dysart, Ham House, Richmond, was 2nd, and his plants were dwarfer than the others.
For a miscellaneous collection of plants, Mr. H. F. FordHiM, florist. Twickenham, had much the best arrangement, and consequently won quite easily.
For twenty four Chrysanthemum blooms, incurved and Japanese in equal numbers, Mr. Portrury, Ripon Hoase, Putney, was worthily 1st, with an even exhibit, comprising the best-known varieties; Mr. C. J. Waite, gr. to Hon. W. P. Talbot, Kaher, was 2nd, quality of the incurved varieties costing him several points.
Mr. Portbury also had the beat twelve incurved blooms in another class, Mr. Braby being 2nd. The same positions were taken by these exhibitors in the class for twelve Japanese, the contest being a close one.
The class for Pompons was a capital one, Mr. Chas. Garrod, kr. to J. R. Tindıle, Eeq., being 1st; and Mr. Brahy 2nd.
Floral decorations made a notable feature, the most succeseful in this section being Misa C. B, CoLE and Miss N. H. Cole, who both dieplayed excellent taste.

\section*{NATIONAL OHRYSANTHEMUM.}

Novingere 20.-The Floral Committee met at the Royal Aquariam on the above date, a coaniderable number of noveltien being staged.
First-clase Certificates of Merit ware awarded to incurved Bonnie Dundeo, pale bronzy-yellow, of lovely ahape, and highly refined; and to Japanese Anemone Robert Adair, delicate flesh, with drooping petals, attractive in colour; both from Mr. R. OWEM, Maidenhead. To Japanese M. M. D. Chatin, a creamy-white incurved Japanese, a large, full flower of good quality; and Jules Chrétien, a large, broad-petalled incurved Japanese, of good substance; trom Mr. E. BECKETT, Aldenham House, Kistree. To single Kato Williams, bright yellow. large but somewhat loose; and to Japanese Parthenia, a delicate blueh reflezed Japanese, small in size as Japanese go now: both from Mr. H. J. Jones, Lewisham. To Japaneee Surpane Amiral, a large yellow Japanese of full substance, partly incurving and partly reflexed, with an inelination to roughMen ; Hem ki. E, CALYAT, Grenoble, Frazce, And to Japanene Mra. Hermann Klow, roddish-bronze and gold, also with a tendency to loosenese; from Mr. WILLLAM SEW ABD, Hanwell. The following are of a decided promising character: Japanees Luino, bright yellow, very pleasing in tint; Japanese Stresa, pale yellow ; and Vignolo, of much the same colour, but

Graphic, warm pink, with silvery reverse; from Mr. R. Ower. apanese Desdemona, a delicato blush-pinly reflezed Japanese, from Mr. H. J. Jones.

November 27.-A good namber of noveltien were staged on this cesasion.
First-clas3 Certificatos were awarded to William Slogrove from Mr. W. SLoGrove, and deacribed in our Royal Horticultural Society's report of the previous day. Japanese Anemone Surprise (R. OWEN), and to Japanese Olive Oclee, both previously described. Japanese Madame J. Bernard, delicate Viously described. Japanese cadame J. Brranged in a kind rosy-lilac, with ilvery reerse, hed to see it again. Other proof whorl. The committee wished to see mising flowers were etaged which will, doubt, be seen again in better condition next season.

\section*{YORK CHRYSANTEEMOM.}

November 20. - Tae Ancient Society of York Florist opened their annual exhibition of plante, flowers, fruite, and vegetables in the grand hall of the Fine Art Institution at York.
The exhibition of Chrysanthemums, considering the lateness of the date for such an early season, was very good. One of the principal features of the show was the splendid collections of Apples exhibited by Messrs. Backhouse \& Sox, York; Messrs. G. Bunyard \& Co., Maidstone ; and Mr. John WaTkINS, of Withington, Hereford. They were the most magnificent ever seen in the north of England.

\section*{Chrysantremuas.}

The competition for the prizes offered for groups of Chrysanthemums arranged with other foliage plants, was very good, the lst prize going to Mr. Cotham, nurseryman, Cottingham, Hull. 2nd, Mr. J. H. Kingston, York. The groups were very effectively arranged around the sides of the great hall. Circular groups of Chrysanthemums, cultural merit being the chief point of consideration, were arranged down the centre of the hall, and somewhat detracted from the effect produced by the side groups. A grand effect would have been produced had they been grouped right round the hall. The lst prize had these was taken by Mrs. Gurcri, of Yorl; 2nd, Mr. W. B. for these was taken by Mrs. Gutcr, of York; 2nd, Mr. W. B.
Richardson. Very excellent blooms of the best varieties in Richardson. Very excellent blooms of the
cultivation were shown in all these groups.
Open class for specimen plants of Chrysanthemums. - Ia these, the compatition was not great, but some good inourred varieties were shown by Mra. Gutor, who was lat in the class for four plants with Mr. G. Ruadle, Mr. Glenny, Ro Cannell, and Mrs. Dizon; 2nd, Mr. Dickensor.
Mr. Dicrenson was 1st for four Japanese; 2nd, Mrs. Gutcri. Cut blooms.-The competition in these classes also was not so large as we have seen previously. Many exhibitors who entered, no doubt owing to the warm weathy ex, were unable to appear. The lst prize, \(£ 10\), to which is added the Citizens' appear. The 1 st prize, \(£ 10\), to which is added the Citizens
Challenge prize, value \(£ 3\), for thirty-six blooms, eighteen incurved and eighteen Japanese, was taken by Sir James Walker, of Sand Hutton, Yorly, with a grand lot of flowers eapecially of the incurved varieties, waich included Empress of India, Golden Empress, Baron Hirsch, Hero of stoke Newington, Princess of Wales, Princess Teck, Mrs. Coleman, J. Agate, Jeanne d'Arc, John Lambert, and other good varie ties; among the eighteen Japanese were Mrs. H. Payne, Madame M. Hoste, Viviand Morel, Col. Smith, Miss D. Shea, Madame M. Hoate, Viviand Morel, Col. Smith, Miss D. Shea, prize went to Mr. A. Milnethorpe.
The best twelve blooms, incurved, one variety, were from the Earl of Faversiam.
Eighteen incurved blooms in twelve varieties were bast from C. H. Simpson.
Sif James Walker won for eighteen Japanese blooms.
The class for eighteen blooms, open to gardeners and amateurs residing within 5 miles of York, to the lat prize for which is added the Citizens' Challenge prize. lat was won by Mr. W. B. Riceardson; 2nd, Mrs. Gutcer.

\section*{Fbutts.}

Pears and Apples were shown in splendld condition. Pitmaston Duchees Peara, and Ribston Pippin Apples, shown by Lord Hotham and Sir J. W. Pease, were prodigious in size, and excellent in colour. Qrapes wore not quite up to the standard of former years. In the olean for wix bunchen, in atandard of former years. In the olane for niz banches, in
three varieties, the let prize was taken by Lom Hotema, three varieties, the let prize was taken by Lord Hoteam, well-finiahed bunches of Muscat of Alezandrian, Alicante, and Mrs. Pearson; 2nd, Mr. R. H. HEYWOOD Jones; two bunches of Black Grapes were also best from Lord Hotinar; two bunches of White Grapes from Mr. ARTEUB Wirsox.
For a collection of fruit in six varieties, Lord Hotifam was 1st, and Sir W. Peast 2nd.
The best six dishes of bakiag Apples were from Lord Hotiam, and sim diahes of dessert varieties also. Lord Hotham, and six diahes of the beat nix Pears.
sir J. W. Pease was lat in the class for nine dishes of Apples, and six dishes of Pears; with Apples-Gascoigne Seedling, Royal Russet, Bismarck, Ribston Pippin, King of the Pippins, Court Pendu Plat, Blenheim Orange, Adams' Poarmain, Manchester Pippin. Pears: Jocephine de Malines, Ĺón Le Clerk, Marie Louise, Ne Plus Uitra, Durondeau, Pitmaston Duchese-splendid diehos.

\section*{Vegetables.}

Mesurs. Sutton \& Sors, Reading, exhibited a mplendid collection of ninety varieties of Potatos, which wore a great

In the open classes for vegetables, the principal prize-taken were Sir J. W. Pease, Messrs. Sangater \& Soizo-takem Waite, Mr. G. Welby, Mr. J. Sutton, Mr. J. Whitrifid, Mr. J. G. Thraxton, and Mr. Wragg.

\section*{SOUTH SHIELDS AND NORTHERM
COUNTIES CERYSANTHEMOM.}

November 20, 21.-The above nociety held first exhibition in 1882, but after 1886 became defanct until renucitated again in 1890 . The shom heo every year aince improved, and the one held on the 20 Hh and 21at inst. in the Royal Anembly Fill South Shields, wai the best the nociety buheld,
For twenty-four Japanese, eighteen varietioe, then men ten competitors
For twenty-four Japanese, eighteen varietiex, \(\mathbf{M}_{\mathrm{p}}\), J. Wheeler, gr. to Mrs. Mitchell, Jesmond Tower, lemeth was 1st, amongst ten competitors; his best flowers wer Viviand Morel, Chas. Davis, Mrs. C. H. Payae, Boole dor Miviand Morel, Chas. Davis, Mrs. C. H. Payne, Bolle don Mr. G. J. Nofford, Mdlle. Thérè se Rey, Kra, Knowlea
Niveum, Sunflower, Waban, and Duke of York. Mr, \(G\), Niveum, Sunfower, Waban, and Duke of York, Mr, a For twenty-foar incurved blooms, eighteen rarieties, Mr, Shotton was 1st. Mr. Shotton is a new exhibitor, and bidi fair, along with Mr. Wheeler, to do honour to North umberland. Mr. Jis. Coultas, gro to Alderman Habdirem Hollyhurst, Darlington, was 2nd; and Mr. J. BLaIR 3nd the first were a fine lot, and the judges were most emphatic in their praise.
For eighteen varieties, Japınese, Mr. T. J. Wheruer wee, with flowers and bunches equally good as those in the then for twenty-four blooms: Mr. P. BLAIR was 2nd.
Mr. G. SHotror was lst for aighteen incarved boma; and Mr. Jıs. Coult 4 S was 2 nd .
- For twelve Japanese, Mr. Peter Blatr was ist; and bro like number of incurved, Mr. G. Shottor won.
The best sir bunches of Pompons were shown by Mr, T. J. Wheeler; and for twelve \(A\) aemoneflowered, \(M f, G_{0} C_{0}\) Smite, Floral Cottage Hall, was 1st. Whilst for tmiw eflexed, Mr. G. Shotron was the most successfal.

\section*{Bouquets, \& C.}

Epergnes and bouquets are always an important fenture of this exhibition. One centre table, the entire length of the hall, was flled with admirable exhibits of this description The best bouquet was from Mr. J. SUMMERS, Fawcett, Sunder land; and Mesars. Perkins \& Sons, Coventry, were 2nd. For bridal bouquet, these exhibitors occupied the same poaition
The epergnes were tastefully arranged, and containod may ohoice flowers. Mr. Thos. Bateensby
don-on-Tyne, was lst for dinner-table.
For bunches of Chrysanthemums and for ledies' spash Messre: Perinins were 1st ; and for batton-hole bouquot, y. J. McKonzie, gr. to the Rev. R. Burdor, Heddon How Wylam-on-Tyne, was 1st.

Plants.
For a group of miscellaneous plants, not exceseding 10 forb by 8, there were four competitors, Mr. Jno. MeIntyre, gri th Mre. Gurney Pease, Woodside, Darlington, being lit; theod arrangement was of his usual artistic manner. Mr. J. Wod arrangement was of his usual artistic manner. Ma 2nd.
Rr. to ED. Hopper, Eisq., Riverside, Morpeth, wal 2nd
There were classes in this section for table and misodramy
The amateur classes were well contestel, and thaw Grapes in open classes especially so.

GLASGOW OERYSANTHEMUM, FBUL
AND VEGETABLE.
November 21.-Thim show, the second held if Glasgow, was an improvement on that of lut jur The St. Andrew' Hall, in which it was held, filled throughout with an excellent dieplay of cuyp anthemums, arranged with tablew of planter 10 un relieve the monotomy of a diaplay of merdy flowers. The towering Palm, foliage plants ram \&cc., called forth favourable commenta on andil) and were most creditable to Mr. Dewar (pr Mr. Canningham and Mr. Wyllie (secretariat), the other promoters who had apared neithor of nor trouble to render the display worthy of wentern capital of Scotland.

\section*{Cut Blooms.}

The lst prize, contributed by the Corporation of aly Was gained by Mr. J\&MRS DAY, gro at Galloway thirty-siz blooms (Japanese), which were in the first-rate, and equal to any seen elsewhere in tha 2nd prize went to Mr. James Brigs, \({ }^{\text {gro, }}\) Mrochina
M. Nicol, gro, Rossie, Forgandeny, wis class of twenty-four Japanese, and well sustaining tion as an excellent cultivator. His bloona of in received an Award, as being the finest bloom in and he had several other grand flowers. Dunfermiline, was a good 2nd. This wha a clast in competition was rather severe. All the order.
Japanese varieties brought exhibits of high order of hre The incurveda were mostly finer in iorm numerous ardil. Mr . Day led well with excellent blooms in the clans of with and Mro JFo. ClaßKE, gro, Selvirly, was 2nd, formed blooma.

For twelve incurred and twelve Japanese, Mr. Nicol was st, with a fine exhibit; and Mr. CLARIE was 2nd. The last exhibitor was lst among many of the minor clases, for sir grand blooms of E. Molyneux.
In the clasess for amateur exhibitors, many fine blooms were tabled.
There were several tables in competition for effect which were brilliant with plants of dwarf Chryeanthemame and foliage plants. Mr. Arcaibaldo gro. Bothwell Castlo, was list, with a somewhet crowded table: Mr. DALE was 2nd.
Table Plants, which divided off the long lines of Chrysanthemum blooms, were said to be the Gnest display of the kind previoully been in Glasgow. Mr. La mdsbozough, gr., Beech Wood, was lst for six plants which could scarcely be surpaseed. His Orotons, Chelsoni and Prince of Wales, were greatly admired.
Specimen Chrysanthemums, in pots, although better than last year, called forth no apecisl comment. Ruman Hyacinthe were not equal to the display last year, still there were some fine half-dozens exhibitod. Among special awards, Mesars. Thyne. Austir \& McAscin were well to the front with tables ThyNE, Austin \& Mcaslin were well to the front with tables Flowers, Swanley, Kent, had fifty or more beautiful bunches Flowers, Swanley, Kent, had fifty or more beautiful bunches
of their choicest zonal Pelargoniums, which attracted many of their choicest zonal Pelargoniums, which attracted many
admirers. All shades of colour, from the white Sea Gull to admirers. All shades of colour, from the white Sea Gull to Royal Purple, were in capital form.
Mesars. Cross had grand Peara and Gros Colmar Grapes; Mesis. Smite en Eimons had a splendid display of potatosabout filty large dishfuls, and all handsome; Messrs. Buchavaw, of Forth Vineyard, had an attractive exhibit of Grapes in baskets, large in berry, and beautifully coloured. Their colection of Vine-leaves of brilliant colours was very attractive, and the baskets of Tomato-fruite were finely-coloured, and of capital quality.
Huge Palms for competition decorated the orchestra.
Messrs. Dobbie \& Co. had a large table of Chrysanthomums in the leeser hall, loaded with many of their choicost seedlings, io the lesser hall, loaded with many of their choicest
one of the forms quite distinct and very beautiful.
Orchids were few. Mr. Mitchell. gr., Bantoskine, was let for a plant of Cattloya labiata, densely loaded with blooms; Mr. Wrusor, gr., Kelvinside, was 2 nd , with a plant of Cypripsdium insigne, of an immense size and plentifully fowered.

\section*{Fetert.}

This made a gooi show. The classes were not numerous, but all were well represented. Mr. LisLiE, \(g^{\circ}\)., Pitcullen, as usual, was in great force; his Grapes were Jarge in bunch and berry, but his Gros Colmans were not equal in colour to what he generally tablen; but his lst prize bunches of Muscats were first-rate. Mr. Murray, Parkhall, ran Mr. Leslif, hard in the various classes: Mr. Ormiston, gr, Johnston, had some faely-coloured bunches in the black Grape classes. Mr.
Murray was lat for Lady Downes; and his bunches of Murray was lat for Lady Downes; and his bunches of culture.
Apples were well represented, and Mp. Diy's collections of deasert and culinary varieties were far ahead of all others. Mr. Angus, Dalzell, was 1st in the larger clasv for Pears, his dishes of Marie Louise and Doyenné du Comice being about the best seen in Scotland. Mr. Day showed well in this class.

\section*{Vegetables.}

These exhibits were on the whole somewhat coarte for a Glasgow exhibition. Leels and Celery were in great quantities; Caulifiowers remarkably gool-Veitch's Protecting formed the lat prize axhibit from Mr. STEWART, gro, Koock. difry Castle.

For a collection for ten sorts there was strong competition, and Mr. J. Brown, gro, Houston House, greatly distanced his competitors with a firstrate exhibit; his Cucumbers, Celery, French Beans, and roots were as fine as could be desired. M. Temple, Carron.

\section*{NEATH CHRYSANTHEMUM.}

Thr above Society held ite annual show in the \(G\) wyn Hall recently, the dioplay being the beat jet made by this Society.

The csmpetition was keen, expecially in the out-bloom action, and some of the best known growers in the Principality were present. Groups were very satisfactory, the lst prize exhibit in the open clas being an excellent one. The smateurs' and cottagers' exhibits have very much improved. Fruit was well repreeented; whilst with vegetables, Mr. Foster, gr. to Mr. Wriliams, Aberpergum, who has been so puccessful all the season, was invincible. Messrs. Clibrar of Manchester had a fine collection of fruit and cut bloums of Chrysanthemums; Mr. LLEWELLYN of Neath also had a fine atand of fruit and plants.
Mr. GWYM (gr., Mr. Bradley), won 1st place for a group in the open clase; 2nd, Mr. H. Price-both of Neath.
For bix specimen plants in pots, Mr. Bradeer was lat; and
Mr. Price was 2nd, Mr. Price, was 2ad.
The chief prize in the cut-bloom section was for twenty-four booms, Japanese and incurved, to be included in equal numbers. There were seven entries, and Mr. Williams, gr, to the Earl of Lisburne, Crosawood Park, Abaryatwith, was 1at, With a graud collection, his chief blooms being Mrs. W. H. Lees, Charles Davis, Viviand Morel, MdUe. Thérese Rey, and Variety gaining the special prize for best blooms in the show; and Mr. C. B. Whitnal, Mrs. R. King, Golden Empress, Lord Aloester, and Brookleigh Gem, amongst the incurves. Mr. Dumble, gr, to Sir Cearlis Phicip, Picton Oastle, HeverPord Weat, was a goot 2nd; and Mr. Rogert, gro to Mr. Chrye,
Llanolly, Snd.

For twelve incarved, Mr. Dumble was 1st, and Mr. Williams 2nd.
The best collection of twelve Japanese came from Mr. Joy, gr. to Mr. Bowring. The Heath, Cardiff, in a division open only to growers in South Wales and Monmouthshire.

The best collection of twelve varietiep, iocluding equal number of incurved and Japanese flowern, Mr. Williams was
lst; and for twelve incurved blooms, Mr. DUMble was the lst; and for twelve incurved blooms, Mr. DUMBLE
beet exhibitor; Mr. Joy winning for twelve Japanese.

\section*{ATLESBUAY CHRYSANTHEMUM.}

November 21.-The aeventeenth annual exhibition of thas Society wae held in the Corn Excbange on the above date, when the average quality of the exbibits compared favourably with that of 1894, the quality being good, and in some instances noteworthy.
Mra. Bartlett (gro, Mr. W. Turnham), secured for the third time the silver Challenge Cup offered for the bent group of Chrysanthemum plants, which now becomes the property of the exhibitor.
Ia the open clasees Mrs. Barthett wan successful in the olase for forty-eight cut blooms: and Lady A. DE RoTHsCHILD (gr., Mr. H. Warren), was 2nd in the same class, and the winner of many other priz 8 . The quality of the blooms in this class was exceedingly satisfactory, and the disparity between the two most sucoessful exhibitors was very amall indeed. In Lady A. DE ROTHSCEILD's stand was an excellent bloom of Robert Owea, selected by the judges as the best in the show.
The open class for thirty-siz diatinct blooms wae won by Mr. H. Gurney; and Col. Lee ( \({ }^{\text {mpo, Mr. Lee), 2ad; whilst that }}\) for twenty four blooms distinct, was taken by Mrs. Birtlett. Lady de Rothscirimo had the best siz Anemone blooms.
Among the exhibits in the classes for trained plants, was an excellent specimen of \(\mathbf{W}\). H. Lincoln with 200 blooms upon it, shown by Mrs. B\&BtLeTt in the specimen class.

\section*{NORWICH HORTICULTURAL.}

November 21, 22, 23 -An excellent exhibition wat held in S. Aadrew's Hall, Chryanthemums forming one of its principal features, and improvement in all sections was noted, except in the incurved.
Cut blooms were many and good, and the 1st prize for fortyeight distiact Japanese varieties fell to Mr. Allan, gr. to Lord Siffifld, Gunton Park, the blooms, comprising the leadink varieties, beingexcellent; Mr. Rogers, gr. to Lord Rennlesham, Rendlesham Hall, came io a good 2nd.
The best thirts-six Japanese, of Norfolk grow th, came from Mr. Oclee, gr. to the Marchionese of Lotisian, Bliekling Hall. The best iwelve Japanese varieties, open, were those ebown by Mr. Messenger, gr. to O. H. Berirrs, Esq., Woolverstone Marr. Messenger won elso for six Japanese with an equally Mr. MESS
Mr. J. O. Shiddick, gr. to Hon. A. E. Fellowrs, M.P, Mr. J. O. Shiddick, gr, to E.n. A. E. FELLOWE, M.P,
Honingham Hall, had the best incurved apecimens, which werefairly guod. Mr. F. Kirl, gr, to R Cross, E:q.. Worstead, was ist for six incurved of any one variety, namely. Empress India; and also for reflyed and A nemone Pompon varieties. Pompons made a fine display in the twelve varieties class, shown in bunches of six blooms. Mr. J. Esatwood, gr. to J. Sutton. Eer, Tolegraph House, Great Yarmouth, was lat with blooms of leading varieties; Mr. W. Turner, gr. to Dr. J. Wilson, Great Iarmouth, being a close 2nd.
In the competition for the be \(t\) twelve Anenone flowered, and in that for six bunches of single flowered varieties, Mr. and in that for siz bunches of tingle flowered

\section*{Plants}
showed improvement on former years. Mr. G. Wodehouse, gr. to H. Trevor, Eeq., Plaotation, Norwich, was the wianer in the class for six Japanese, with well-flowered plants ot suitable varieties; and Mr. Fisher, Kr. to E. Masters, Esq.. Flixton Park, Beccles, in that for Pompon varieties, with remarkably well-flowered plants of W. Weatlake, Cedo Nulli varieties, \&c. Mr. Bolton, gr. to J. G. Syellivg, Esq., Eaton Eall, was an easy lat for six plants in reflexed varieties, likewiee for nix inourved varieties. Mr. NotcUTT, Broughton Road Nursery. was awarded a First-Class Certificate for Japanese Nursery. was awarded a First-Class Certificate for Japanese
Chryeanthemum Edith Tabor, a pure yellow-flowered variety, possessing great merit; and a similar award was made to Mr. NoTcUTT, also for incurved Major Bonuaffon, orangecoloured.
Mesars. DLYEL Bros. showed Chrysanthemums, frait, a variety of plants and of vegetables, which added oonaiderably to the attractions of the show.

\section*{MANCEESTER ROYAL BOTANIC.}

November 22, 23 - The Chryanthemam Show under the auspices of the above society, was held in the Town Hall. Tha exhibite generally were of excellent character. The pot plants, although showing evidence of being retarded, were full of welldevelopad flowert, and cast fice mastes of colour along the aiden of the apacious hall. The incurved blooms were highly meritorion, the chief prizetakers puttiog ap an unusually well-growa assortment. The Japanese were carcely so good apon the whole, althoagh in much greater number than
we bave seen them at previous exhibitions of the cociety. The cat fowere generally comprising those grown indoors and those grown outdoorn, were clean and brilliant. What alway adds to the features of the November exbibition, it the grand diaplay of Orchidr, comprising Cattleyas, Dendrobiame, Cypripediums, and Sophronitis from various exhibitorn.

\section*{Planta.}

The finest collection of nine came from T. Harker, Emq.. Bank House, Fallowfield, followed by G. H. GadDUM, Adres House, Didebury, and by J. C. Chorltor, Erq., Didebury Priory, these gentlemen taking the best positions ia the other clases of pot plantw. The Pompons were fively grown and abundantly flowered, the best coming from Mr. CHomlon, Mr. JAMEs Brown, Langfeld, Heaton Moor: and Mr. R. Hardwior, Woodley's Grange, Ashton-on-Mersey.

\section*{Cut Blooms.}

For forty-six incurved blooms, not fewer than eighteen varieties, and not more than two bloomy of one variety, X. BenRews, Kis.. Bettisfield Park, Whicchurch, was a long way let among nine competitors; ynd, Col. B. Ltozd, Aston Hall among nine
Shrewabury.
For twelve incurved, E. Behrews, Req., and Col, Lloyd respectively gained 1st and 2nd.
For twenty-fur varietiea, cut blooms, Japanese, Mr. Behrens was again let; and Mr. J. Stamming, Brosdfidd Leyland, 2ad.
For thirty-six miscellaneons cut blooms, let, J. Brockle BANK, Req.
Amongst the whole, we noted as the best incurved blooms Oharles Curtis, a finethowy primroee; J. Agate, a good white Mrs, Coleman, buff; J. B. Whitnall, dull maroon; Golden Emprese of India, a model flower; Priccess of Walos, pink; With white contre; Queen of England, blush; Elobart Cannell, bronze; John Lambert, blasis and orange-shadedvery pretty; Mrs. Kearn, one of the best, of a soft pink glowvery compact; Lord Rosebsry, purple-lilac; Miss M. Haggas, primiose; Wm. Tunnington, bronze, as compact as a cone; Mre, Robinson Key, yellow: Barom Hirsch, one of the best of the bronze type; C.B. Whitnall, purple, ahaded; Jeanne d'Or, flesh colour; Brocklegh, fine pale lilac.

Arang the best Japanese were Mrs. B. Ward, orange and yellow; Viviand Morel, of a pinkiah cast; Stanstead White, a really good flower, better than we have seen it this nemson Duke of York, crimson, and white at the back of the florets, one of the prettiest; H. L. Sunderbruck.I good, clear yellow; Ed. Molyneux, stıll a prominent bizarre; Mdlle. Thérese Rey. one of the most beautiful, white with yellowish cast; E. L. Jamieson, a good suby shader flower; R. G. Schwabe, a fne
showy flushed pink, with whit back forets; Internationsie. showy flushed pink, with whit back florete; Internationsie, liren, shaded orange and , roseate pirk; Mis. Bionshaded lijac, with orangeat the back of the florets : Mons Panchoucke a very fine flower; Silver King, pale crimeon, lwith the back of florets as if silvered; Primose League, beat of ite clase; E. W. Childs, mave; Niveum. good, clear white Louise, fine broad potal, and good generally.

\section*{ORCHIDS.}

The platform was filled with Orchids in great variety from HEaTH \& SOX, Chelteabam, comprising Cattleya labiata in great number', but nothing of first-class excellence amons them. Cattleya Mastersige \(X\), hybrid in which the blood of Harrisiz il largely intermixed, was good. There were quantities of Dendrobium Phalæaopsis, some very good Oncidium varicosum, some rather rare Cypripediums, the chief amongst them being an insigne Sandera with three flowers, the pale them being an insigne Sanderg with three flowers, the pale
yellow and the white being partinularly pleasiog, and yellow and the white being partinularly pleasiog, and amonget Palma and other ornamental plants, and made a picturesque dieplay.
Mr. James OyPEER, Cheltenham, had a lest pumerous but choice lot, in which a new Cypripedium, in the way of Lee anum eiganteum, but with a dorsal sepal broader and clearer than in that superb variety, was prominent; also one of the most striking of the Odontoglossum Cervantesii, or, rather, Humeanum aection, in which the whole of the segments were flushed, and the concentric rings and spota more than usually promisent. There were many good types of Dendrobium Phalenopsin, which is proving itself to be one of the very best novelties that has boen introduced for years for its great variety, and its usefulnese for indoor decorative purpoees.
Mr, G. B. Balis, Bowden, received First-class Oartificutes for Cypripedium ingigue sanders, with two well-daveloped large flowars-pity that the dorsal sepal is not altogether free of faint pinkish spote-st is uadoubtediy the best of the iavige division; also for Lycante, a natural hybrid, showing the lip and petale of Shinneri, with the narrowish bronze sepels of one of the forme of L. gigantes. Along with these wore several other good Cypripeds, and a white Lycaste Skinneri.

\section*{Miscellareous.}

Wm. Chibran a Son, Altrincham, had a very creditablo avertment of plants in variety, very effeotively groupsd
together. This collection of cool, hardy herbaceous, as well as together. This collection of cool, hardy herbaceous, as well as of Chrysanthemums of various types, and other flowers, was a showy one.
Mr. Jas. Broome sent a lot of posies of hardy herbaceous flowers grown in his garden at Landudno.
H. OAMELL \& Sons had a beantiful lot of double and aingle lowered Pelargoniums arranged in pyramidal bunchea, along with a few select Chryeanthemums.

Messre. LORD, Ashton-0n-Meraey, had a fine lot of cut sprays of various indoor fluwers which tell well in groups at this of various indoor of the year.
Diorson \& Bobrnson exhibited a fine collection of Cyclamens set out amongst Maidenhair Forns; and DICKson, BROWN \& TAIT had a similar assortment.
Mr. Johi Watkins, nurgeryman, Hexeford, put up a collection of over fifty dishes of dessert and culinary Apples in first-rate condition.

VARIORUM.

A Tropical Froq at Kew.-Dr, Ganther, writing to Nature, wy: A short time ago Mr. W. Wation, the ascistant carator of Kew Gardens, informed me that he had noticed for neveral jeara, in some of the hothoases, apecimens of a small frog, which, hiding away daring the day among the pots and orchid batkets, enlivened the quiet evenings with their shrill, whistling noter. Saspecting that this frog must be of foreign importation, I alked the director to allow some of the specimes to be canght, and some days ago I had the pleasure of receiving three specimens in excellent condition. The frog is Hylodes Martinicensis, a mall arboreal species, distribated over, and common in, many West Indian islands (Martinique, Porto Rico, St. Vincent, Dominica, Barbados, \&ce., and possibly in Trinidad). Mr. Watson recollects that he observed it first some ten years ago, that he lost night of it for some time, but that it reappeared about four or five years ago. Taking into consideration the few facts with which we are scquainted as to the reproduction of this frog, it neeme most probable that several specimens of both sexes were, on more than one ocisasion, zecidentally introduced in Wardean cases. However that may be, it is evident that the froga have freely propagated since their introduction. At present they are most numerona in the propagating houses, in which the temperature ranges between 80 deg. and 100 deg., sinking in winter at times to nearly 60 deg. Accompanying Mr. Watson one evening, I heard from several points the call of the frogs, which somewhat resembled the piping of a neatling bird; and guided by the sound, I had moon the pleasure of aeeing one of them clinging to the side of a glass case. There is nothing extraordinary in the accidental importation of individuals of a tropical apecies of frog into Earope; bat it is an interenting experience, that the apecies should have permanently established itnelf. This is owing, in the firat place, to the favourable conditions ander which it found itself placed, and secondly, to the pecaliar mode of its propagation. Hyloden Martinicensis, and probably the majority of its congeners, does not apawn in water, but deposits from fifteen to thirty ova on leaves in damp places. After a fortnight the young froga are hatched in a perfect form, having pased through the metamorphosis within the egg, thus eseaping the viciuitude and dangers to which they would have been exposed daring the progresu of the uanal Batrachian metamorphosis. This inatance of the acclimatination in Kow Gardens of the "Coqui" (as the frog is called in Porto Rico) is unique in Batrachian life at present. I truat that the little gueat may long flourish Whare it has found wuch a congenial home, and where it usefally aida in the destruction of plant-eating insects and wood-lice, of which I found great numbers in the stomach of a specimen. If at a later period a nest with opa were discovered, Mr. Dyer would delight the heart of embryologista, to whom the opportanity of examining fresh ova of this frog would be mont welcome.

\section*{Obituary.}

Lord de Tabley.-The deceased peer was generaily known as a acholarly and elegant poet. It is not so well known that an the Hon. Leicester Warren he wai a critical botanist of great acatenetes, as witness his inveatigations on the geaus Romex add many other British plants.

Richard Gilbert.-By the death, on Friday, Nov. 22, of Richard Gilbert, at the age of seventythree, the gardening world is the poorer by an excellent gardener, and a man of aterling wortb. The deceased had been gardener to the Marquis of Exeter, and during the last few yeara tenant of the kitchen garden and appartenances at Barghley Houso, Stamford, at which place he died. His connection with Barghley began in 1868, he having been recommended to the post of tead gardener by the Superintendent of the Royal Horticultaral Society's Gardens at Chiswick. Mr. Gilbert had the advantage of a varied experience in gardens and gardening, and had many changes of masters, before he settled to his life's-work at the place with which his name was to become intimately connected.
To those who may be interested in the matter, we would refer our readers to his autobiography, which appeared in these pages on Augast 14, 1875. Ho was an enthusiant in his profension, doing thoroughly, and with all his heart, whatever he undertook, but hi forte was fruit and vegetable calture, and out-ofdoors gardening generally. In few places coald better

trained and fraited wall-trees, or finer Strawberries, be found. His British Qaeens were unaurpassed for size and goodnenn, and although, as was natural in a man capable of having an opinion, about retaining what was beat in every sense in the older productions of the garden, he was constantly teating new varieties of fruit and vegetablen. We believe there was scarcely a new Strawberry brought out by Menirs. Laxton of Bedford, Mr. Lovell, Mr. Allan of Gunton Park, or other raiaer of note, that he did not at once bay and tent in the capital soil of Barghley. At one period, some ten yearm ago, he endeavoured to raise varietien of Sapoyn, and cronea between Cabbages and Broccolis, which were the one or the other according to the aeason at which they were cat; but these, although they found favour with gardeners for a time, are, at this date, not generally liked. With his Qaeen of Broccolis, and Universal Savoy, he wan more succeanful, and these are likely to survive for yeara to come. Hin Royal Sovereign Tomato, and Burghley Parik Cherry, are meritorious productions, as are Victory of Bath and Gilbert': Green-Fiesh Melon. Most of thene novelties were raised by him, and of the others he was simply the introducer.

Oae of his greatest feate as an exhibitor, and he exbibited mach and frequestly at the London and other big ahow, was the winning of the Carter

Challenge Cap, for a collection of regetables, at the Royal Horticultural Societp's nhow on July 7 , 1875, his chief opponent being Mr. Artell and Mr. Pragnell.

George Lawson.-The death has occurred, says the Athenceuin, at the age of vixty-teren years, of Profesaor George Lawson, who occapied the Chair of Chemiatry and Mineralogy in the University of Halifax, Nova Scotia. He mu a native of Dandee, and while engaged as a young man in a city office he devoted his leisare to veienco paranits, and in 1848 he left his native tom for Edinburgh as astistant to Prof, Balfour. In 1858 he was called to fill the Chair of Natural Hiwory at Kingston College, Canada, some yeare altermarda taking up his late position at Halifax. In 1888 ho was elected President of the Rogal Society of Canada. It is not too much to say that to Prof. Lawson muat be ascribed much of the ancem of tendant on frait-growing in the Dominion, tince be was the firat to direct attention to the ponsibilitier of Canada's development in this direction. He wu a Fellow of the Royal Phytical and Botanical Societies of Edinbargh, and of the Institute of Chemintry of Great Britain, and an honorary member of tho Edinburgh Geological and Scottioh Arboricaltanal Societies. He was also a Fellow of the Ropul Society of Canade. In the summer of lant your he visited Scotland, and in October last he retired from college work. looking forward to wellearned rest. On November 1, however, he wa seized with paralynis, and ten daya later pased amas. He was twice married, and his firat wife, Miss Lney Stapeley, of London, contribated to the Transactions of the Botanical Society of Canada a paper on "The Silkworm and other Fibre-yielding Insectu, and the growth of their Food Plants in Canada." Prof. Lawson was an old and valued correspondent of thit journal, and furnished un regularly with reporta on the Apple crops of Nova Scotia.

Mrs. Bruce Findlay.-It is with much reprel we announce the death of Mra. Bruce Findlay, wifo of the Carator of the Manchester Royal Botanical and Horticultaral Society, which occarred at 014 Trafford on Wednesday, November 20.

\section*{Markets.}

\section*{COVENT GARDEN, November 28.}
[We cannot accept any responsibility for the sabjoined seports. They are furnished to us regularly erery Thursiday, by the hindness of several of the principh salesman, who revise the list. and who are responitio for the quotations. It must be remembered thet the quotations do not represent the pricee on any partiodies day, but only the general averages for the weel procedim the date of our report. The prices depend upon the quality of the samples, the supply in the marriet, and on demand; and they may fluctuate, not only


 Aspidistra, per doz. 32 0-30 Chrysanthemums, Chryannthemums,
dozp pots
- (opecimens).
plant plant
Cyparue, per dozor Dracman, each
various, p. doz. Ericas, various, doz. Evergreen Shrube, in variety, dozo..o 6 0-24 0 Ferns, amall, dozo..oo- 1 6- 30.
Fruit.-AVEracte Wholesale Prices.



Trade slow; supplies heavy. Snowdrops. 70s. to 90s. Hebrons, 75 s . to 85 s . ; Bruces, 45 s , to 60 s ; ; Black lands, 20 s . to 45s, J. B. Thomas.

\section*{SEEDS.}

Lonnow: Nooenber 27.-Meosrs, John Bhaw a Sonf, Seed Merobants, of Great Mave Pond. Borough, London, B.IF. report to-day's market thinly attended. There has not this week been any noteworthy change in the value of either Clover or grass seeds. As yet no general inquiry of any importance has sprung up for aeeds, a few large provincial firms have, however, buen taking advantage of the low rates current to lay in some supply. Tares are neglected. Peas and Haricots show no alteration. Mustard and Rape seed keep firm. As regards Bird seeds there is no fresh feature.

\section*{FRUITS AND VEGETABLES.}

Bonoval : Nov. 26.-Quotations:-Cabbiges, 2s. 6d. 10 2s. 6d. to 38 . per dozen bunches: Apples, Carrota and Turnips. Chestnuts, 68 , to 0s. 6d, per bag; Apples, 4s. to 0s. por bushel SPITALfiELDS \& Nou 63. to 9s. per tally Nov. 26.-Quotations:-Cauliflowers, best, Greens, 1s to 18 , seconds, 18. 6 d . to 2 s .6 d . do. ; bunch 8prouts. 1s. to \(18.6 d\). per dozen; Savoys, \(2 s\). to 3 s . per tally; doprouts, 1s. 3d. to 1s. 6d. per half-zieve; Artichokes, 1s. \(6 d\). do. ; Hosseradish, 1s. \(1 d\). to 1s. 2d. per bundle: Carrots, \(2 s\). per dozen bunches; Turnips, 18. 6d. do. ; Celery, 7s, to 98. per dozen rounds; Onions, \(3 \mathrm{~s} .6 d\). to 4 s . per bag; Carrots, 1s. 3d. do. : Turnips, 1 s .3 d . to 1 s .6 d . do. : Apples, cooking, 3s.
to 4s. par bushel ; dest to 4s. per bushel; desert, do., 4s. 6d. to 5s. \(6 d\) d. do.
Stratrord, Nov. 26.-There has been an abundant supply Cabbagea, 2 trade done at the uudermentioned prices:6d. to 1 s . per bag': per tally; Savoys, 2s. to 4s. do. ; Greens, 6d. to 1s. per bag'; do., 1s. to \(1 \mathrm{ls} .6 d\). per dozen; Cauliflowers, \(8 d\). to ls. \(6 d\). per dozen; do., 2s.to 7 J . per tally; Scotch Kale, bunches; do., 20s, to 40, Turnips, 1s. to 1s. 6d. per dozen 32s. do. ; do., cattle fees per ton; Carrots, household, 25s. to to 15s. do.; 8 wedes, 15 s , 17 s . to 26s. do.; Mangels, 12 s. to 958 . do. ; do., Ghent, 2 s . 8 d to do. ; Onions, English, 85 . 4s. to 5s. 6d. per case, 28. 6d. to 2s. 9 d . per bag ; do , Ports., 38. 9 . 5s. \(6 d^{2}\). per case ; Apples, English, cookers, 2 s. \(8 d\). to 3s. 9 d. per bushel ; do., dessert, 2s. 6d. to 5 s . do. 2 do. 80 . to Scotia, 13s. to 18s. per barrel ; Peara, English, do.; do., Nova per bushel; Beet-root, 6d to \(8 d\) ears, English, 2s. 6d. to b̄s. 10d. per bundle; Horse-radiah, 1 s . to 1 s . 3 d . do.; Paraley, 1 s . to \(18.6 d\). per dozen buadles; Bruseels 8 prouts, \(18.3 d_{1}\) to l. 6d. per half-tieve.

Fanriradon: Nov. 28.-Quotations:-Cabbages, 2s. 6d, per tally (Collards); Caulifiowers, 1s. 6d. per dozen: Turnip-tope, per half-sieve Onfons (English, per dozen; Sprouts, 18. 61. 18. 6d. per bushal : Turnip, 2s. 4s. 6d. per bag; Beetroots, 28. do. par bushel ; Turbipa, 2s. per dozen bunches; Carrots, Apples!!Blenheims," 4 , per score; Celery, 13s. per dozen iounds; do.; Canadian Ribstons, 15. per bushel; Wellingtons, 4s. 6d, do. ; Canadian Ribstons, 15s. per barrel; Baldwins, 15s, 6d. do. Grapes, 1s. 2d. per 1b. do. ; Tonkin King, 15s. do. ; Eoglish Grapea, 1s. 2d. per 1b.; Tomatos, English, 3s, 6d, per 121b.

POTATOS.
Bonovar: November 26.-Quotations ranged between 40 s . and 80s. per tom.
Bpitalfiezids: November 26.-Quotations:- Main Crop Kidneys, 50 s. to 65 s . ; Reading Giants, 40 s . to 60 s .; Bruces, 40 s . to \(55 \mathrm{s}\). : Imperators, 50 s . to 60 s. : Hebrons, 608 , to 80 s . ; sutton's Abundance, 50s. to 70s. per ton.
STRATYORD, November 28.-Quotations:-Bruces, dark moil, 3ss. to 40 s : do., light, 40 s . to 60 s . Beading Giante, 40 s , to S5s.; Sutton's Abundaace, 50 s , to 70 s. pear ton.

FARALredow: Novamber 28.-Quotations: Main Orop Kid. neys, 80 s , to 90 s . J Jeannie Dasns, 70s, to 808. ; White Hebrons,
 Sutton's Abundance, 65s. to 75s, per ton.

London Averages: Now. 27. - Dunbars, 90s. to 100f.: Snowdrope, 60s, to 93s.; Hebroas, 60s, to 90s. : Sutton's Abundance, 60s. to 65s.; Puritans, 55s. to 60s. ; Regente, 60s. to 70 s ; Imperators, 40 s , to \(50 \%\); Magnums, 35 s . to 45 s , per ton.

\section*{HAY.}

Averaget.-The following are the averages of the prions at the metropolitan markets during the paet week:-Olover, prime, 80 s . to 100 s . : do., inferior, 50 s , to 70 s : hay, beet, 60 s . to 90 s . \({ }^{2} \mathrm{do}\), inferior. 86s. to 60 s . mixture, 70s. to 87s. 6d. ; and straw, 30s, to 44. per lond.

\section*{CORN.}

Averages. - Official statemont of the average prices of British Corn, imperial measure (qr.), for the week ending November 23, and for the corresponding period in the previous year:-1895: Wheat, 25s.7d.; Barley, 25s. 1 d. ; Oats, 14 s .4 d. 1894: Wheat, 19s.11d.; Bariey, 22s. 4d. ; Onts, 14s. 3 d.

[The term "accumulated temperature" indicat:s the aggre gate amoant, se well as the duration, of degreen of temperature above or below \(43^{\circ}\) Fahr. for the period named : and this combined result is expressed in Day degrees - a "Day-degree" signifying \(1^{\circ}\) continued for twenty-four hours, or any other number of degrees for an inversely proportional number of hours.]


The districts indicated by number in the first columo are the following: -

0, Scotland, N. Principal Wheat-producing Districts1, Ecotland, E.; 2, England, N.E.; 3, Kogland, E.; 4, Midland Counties; 5, Fagland, Ineluding London, 8 Principal Grazing, \&'c., Districts - 6, Scothand, W. ;
7, Kngland, N.W.; 8, England. B.W.; 9. Irehnd, N. 7, Rngland, N.W.; 8, England, S.W.; 9. Irelnad, N.; 10 Ireland, S. \#hannel Ialande.

\section*{THEPASTWEEK。}

THe following summary record of the weather throughout The British Ialands for the week ending November 23, is furnished from the Metearological Office:-
"The weather varied considerably in differeat parte the kingdom. Rain was of frequent occurrence excepting in the south-east, but the amounts were lese heary than those of the weeks immediately preceding. The air was very humid generally, and fog or mist were experienced at times.
"The temperature apan exceeded the mean, the exces ranging from \(4^{\circ}\) in "England, 5.W, and the Channel Islande,
to \(2^{\circ}\) is most of the weetern and northern districto. The highest of the maxima were reconded on the '17th at most of the English stations, but later in the week in Ireland and Scotland. They ranged from \(58^{\circ}\) in the 'Chanvel Islands,' and \(57^{\circ}\) in the south-west and south of our islands, to \(54^{\circ}\) in "Scotlased, W.' and 'Irelend, N.' The lowest of the minima were registered on the \(i 8 \mathrm{th}\), and varied from \(23^{\circ}\) in the Midlend Counties, to \(30^{\circ}\) in 'Scotland, N. and \(W_{\text {., ' an }}\) ' England, K.E. and N.W., and to \(38^{\circ}\) in the "Channel Islands.
"The rainfall slightly exceod \(d\) the mean in Ireland, and just equalled it in 'England, E. ; in all other districts there was a deficit.
"The bright sumshime was in excess of the mean for the time of year in most parte of the king dom. The percentage of the possible duration ranged from 33 in "Ireland, \(\mathbb{N}\)., to 19 in - England, S , and to 9 in 'Scotland, N.


Chrysantabmum Sport: J. W. V., Batnet. Tae bloom you send appears to be a sport from the variety you name, bat the colour, though diatinct from the type, is not very attractive. It may be well, however, to grow it as atrongly as possible next season, and exhibit blooms before the National Chryanthemum Society, when it true worth conld be more certainly determined.
Dendrobiom: F. W. M. Dendrobium Linawianam thrives in most collections as well as D. nobile when grown in the same manner. Bat in places where the proper resting searon in a cool and dry house is not atrictily observed the plants of D . Linawianum resent the neglect more than those of D. nobile. We recommend you to keep your apecimens in a cool, dry, bot light situation antil they atart into growth again and then gradually to take them into the warmeat and most bumid house jou have until the growthe are fully completed. We have no evidence of ite situation in its native habitat.
"Qarden Annual" amd "Horticultural Dirgc.
tory": W. \(E\). \(L\). You should apply to the editors of those periodicals. How can we tell?

Incandescent Gasliget in a Conembvatory: A.E.K. The fumes from gas, anlest completely consumed, are very idjarions to plant life, in proportion to the amount of salphar left in the gas. It is rarely that the gas is quite free from this deleterious nabutance.
Lilium losgiflorum var. Harrisif: \(L\). \(L\). B. The bloome are obtained at this seaton from longdelayed buibs, which may not have been potted till June or later, but grown ander natural cool treatment-except, perbapa, just before flowering, when they are placed in mild heat, so as to obtain well-expanded blossoms. These bulbs are selected from importation arriving late in the seatod, which are suitably retarded.
IVI: G. G. The grafting of the variegated forms on stocke of any atrong green variety can be bent undertaken when growth commences naturally; or, if you would hasten the operation, it may be done in a close moist pit or house having a maximum temperatare of \(65^{\circ}\) and minimam of \(55^{\circ}\), choosing the latter part of February or beginning of March. It would be better if the stock were one-year rooted in pote.
Mabiti Strawberbirs: A, \(\boldsymbol{K}, \boldsymbol{H}\). We give you the names of varieties of moderate price when purchased as young plants, viz., Noble (Laxton's), Vicomtesse Héricart du Thary, Sir Chas. Napier, and Elton Hine. Your method of cultivation is very suitable, bat we should be inclined to plant some of the early varietie in the warmer place, and the later in the colder aite.

Mushroom Spawa: A. B. C. We ahould imagine that he would be liable to an action for damages if he knowingly sold "spawn" that had lout it vitality, or which was incapable of producing Muahroom.
Musnпомм: \(F_{0}, B\). The withered brown appearance of the young Muahrooms pointe to pawnbrick: "having been emplojed in which the mycelium "spawn" had "run," and conetquently becume uneless; or to too great warmth in the bed.

Names of Fruits: E. Smith, Greenhaugh. Your Apple is Egg or White Paradive.-C. Kemp. Apple. Em* peror Alexander. - C. W.C. Apple, Golden Noble ; Pear, Josephine de Maliney.-C. Liddiard. Your
 Applea are unknown to us,-G. D.
Superfin: 2, Marie Louise; 3, Duchese d'Angouème. Apples, 1, Brymer; 2, Northern Spy; 3, not known.
Nawes of Plants: Correspondents not answered in this issue are requested to consult the next number. W. G. Ventnor. The Chrysanthemam bloom you rend is true Val d'Andorre, bat light in colour owing to an early bud having been selected, and to the unusual warmth during September. Such matter as theae should be addressed to the Editor. -D. L, Contich. 1. Oncidiam pretextum: 2, Oncidiam tigrinom; 3 and 4 . Oacidiam ungaiculatum; 100, a Pbyllocactus, posibly the eedling known as aurantiacus.-J. \(H\). Cheilanthes hirta. -W. M. M., Ross. 1. Liparie longipes; 2, Cymbidiam giganteum; 3, Bifrenaria inodors.-J. B. Maxillaria picta-D. J. 1, Fittonia Pearcei; 2, Gymnogramma ochracea; 3, Selaginella viticuloa; 4. Bambuaa gracilis; 5, Draceaa fragrans; 6, Dracmas rubra.
Odontoglossom Habryanem: F. H. M. The variety is diecinct in baving the sepal almort wholly of a dark chocolate colour. The original, like your plant, comes darker in mome years than others. Many thanks for promise to send a photograph.
Raspberry Plantina: F.J. F. If the cane are to be planted at wide distances and then bent over and secared to a stake 3 feet high placed midway between the stools, the atools or ciumps should not be leas than 6 feet apart if it be land on which the Raspberry grows vigorously, and 5 feet in other cases. If the Rapberries are to be secared to an espalier tence, then, plant at \(1 \frac{1}{2}\) feet apart. Do not put more than one plant in a bole.
Situation on a Tea or Sugar Plantation: W. B. Advertise in some of che colonial papers, or in the Tropical Agriculturist and aimilar trade papers.
Woodlice and Mushrooms: H. E. Clear away the hay now covering the beds, and pour boiling-water into the crevice, which are aure to be found between the bed and the walla-repeat thin twice a day; remove all materialf, stones, bricka, tlen, litter, \& ©., which could form hiding- places for the insects, and dash boiling-nater into all acceasible and Jikely biding-places. Cover the beds with bast matr, or clean straw; or leave them ancovered. Mushroom-beds do not need covering, unles the noil be very light, or mach fira-best is ased

Communicatioys Received.-J. H.-L. C.-E. A., Paris. E. P , Ghent.-C. T. W.-H. J. W. B.-W. W.-J. W.A. N.-W. Fell \& Co.-R C. W.-R. D.-W. S. H.J. C. W. \& Son.-J. B., Ehitnal.-J. O., Fota Island, A. J. B.-S. Abbey (thanks for donation to Gardeners Orphan Fund).-J. Rogers.-C. W. S.-A. G. F.-Wm. T.J. K. \& Sors.-A. E. P.-J. Clayton,-W, B, H.-T. L. J. H.-E. C.-A.E. N. G.-G. So-W. Swan.-T. E. T.J. J. W.-Mesars. Pope \& Sons.

Photographs, Spechmens, \&C, Received with thanks. J. H. -A. H.-Fota.-H. O. - W. N.

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A SPARAGUS，for Forcing．－Five years old，
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T ILIES OF THE VALLEY．－I beg to offer 1 first－clam Forcing Crowns for immediate delivery．Also Planting Crowns， 1 and 2 －yr．old．Prices on applic
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ROYAL SOVEREIGN STRAWBERRY－ 1 strong well－rooted runners．Alco Sir Joeeph Paxton， and other leading varieties．
RASPBERRY OANES－Carter＇s Prolific，Semper Fidelic， Norwich Wonder，\＆c．8pecial quotations for large quantities． apply，JOHN Chivers，Histon，Cambridge．

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CHRYSANTHEMUMS FROM SCOTLAND． C－We have a very large collection，embracing all the best noveltioc，and our prioes are moderate．Catalogues free


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BARR＇S WINTER \＆SPRING FLOWERS． B 8ee Illustrations，back page，Gard．Chron．，Sept．7， 1895 GENERAL BULB CATALOGUR，Pree on application． ENGLISH DAFFODIL CATALOGUR．free on application． ENGLISH AMATEUR TULIP CATALLOGUE on application CATALOGUE of HARDY HERBACEOU3 HRRENNIALS．

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OW is the TIME to PLANT PAONIES，

NEW SPINELESS GOOSEBERRIES．－ monials \＆c，from W．BU甘HFORTH，Nursery Mount，Leeds；of from the sole proprielors，LETELLIER \＆SON，Omen．France．
PLANT NOW for FURCING．－LILY OF THE VALLEY，Spireas japonica，palmanta，and compacta multiflora，Dielytra spectabiliso \＆c．All thoroughly ripened， nod in excellent condition for forcing－For particulary，see E．No． 453 ，free on application
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CUTHBERT＇S SPECIALITE MUSHROOM SPAWN．Always alile；most productive．Bundrode R．AKD G．CUTHBERT，Beed，Balb，and Plant Merchanto southrate，N．Kstablinbed 1707．
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168．per 100 ，free on rail－WILLLAM WHITELEY，The Nurseries，Hillingdon Heath，Uxbridge．
PALMS，CORYPHAS and LATANIAS from Pelargorium Cutting，or Bedding Geranange for Carnations Polargonium Cuttings，or Bedding Geraniums．
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HENRY RIDES，SALksman，Central Highest Market Prices．Prompt cash．
50,000 EUON YMUS，Green and Golden， to 15 in ．，at 30 s ．per \(100 ; 15 \mathrm{in}\) ．to 18 in ．，at 403 ．per 100 ； 18 in ．to 21 in ．，at Ebs ．per \(100 ; 21 \mathrm{in}\) ．to 24 inn ，at 7 ss ．per 100 ； 25 in ．to 43 in ．at special prices．
GOLDEN： 5 in．to 12 in，at 88. to 88 s．per dozen．Cush with
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FERNS AND DECORATIVE PLANTS！－ （TRADE）：－Ferns，in 24－inch pots，Stove and Green－ house， 30 best selling eorts， \(18 \%\) ． 100 ；ditto large，in 488,10 boli－ antume cuneatum，in tros for cutting 83, and 88 ．doz．；ditto， for making large plante quickly， 16 s ，and 20s． 100 ；Aralias， 10 s. 100 ；Oyperus，Aralias，Grevilicas，Solanums，in \(48{ }^{3} \mathrm{~s}_{0} 68\) ．doz． Marguerites，Solanume，Firica gracilis，in bloom，in \(48^{\prime}\) e， 98. doz．：Ficus，Palms，Dracenas，Crotons，Bouvardias，Erica
 Loughborough Junction，London，S．W．

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TORTICULTURAL BONES．－Pure Bones， in \(f, 1\)－inch，and meal，specially prepared．For E．8．WILES \(A\) KD LEWIS，Bone Works，8t．Albans．
ISHURST COMPOUND，used ince 1859 \(G_{\text {for Red Spider，Mildow．Thrips，Greenlly，and otber }}\) blught； 2 ounoes to the gallon of soft water； 4 to 16 ounces as A winter drocsing for vicon and orchard－house hoom，in the from cake，for Amarin is used．Has outlived many preparations intended to supersede it．Bozes，18．，3\％．，and 10s 6\＆
GISHURSTINE keepa Boots dry and noft on OT wet fround．Bosos，bi，and 18．f from the Trade． （Limited）．London．
J．WEEKS \＆CO．，Hortioultural Bailder －To Hor Majeaty，H．R．H．the Prince of Wales，H．M Government，Admiraly Dept．o Par Bepto Royal Part． Royal Bolanu roco，Parklar Boilera，King＇s Rond，Ohelees，S．W Telegraph Addrese，＂Hortulanus，London．＂Telephone，No．8728．

\section*{SALES BY AUCTION,}

Monday, Tuesday, Wednesday, Thursday, and great five days' clearance sale of dutch Bulbs.

\(\mathrm{M}^{\mathrm{R}}\). C. STEVENS will SELL by Covent Garden, W.C., on MONDAY. TUESDAY, WEDNESCovent Garden, W.C.o on MONRAY. THESAY, and SATURDAY NEXT, Deocember 9 \(1,11,12\), and 14, at half-past 12 o'Clock each day, an
10normons im portation of BULB3 from Holland, in the fineat condition.

On view mornings of Sale, and Catalogues had.

\section*{WEDNESDAY NEXT}

700 Well-grown Plants, just received from Ghent in excellent order, comprising AZALEA INDICA and A LATANIA BORBONICA, PHENIX, OORYPHAS, \&C. plants
A Choice Collection of Border Plants, including many no
IRIS,
A Collection of rare Hardy Bulbs and Roots.
Pgramid and Dwarf-trained Fruit Trees, including ARPLES, PEARS,
A small surpius Stock of Ornamental Shrubs from an English Nursery.
15,000 best Berlin Lily of the Valley Crowns, 5000 SPIREA JAPONICA, 5000 DIELYTRA SPECTABILE, Japan.

\(M^{\mathrm{P}}\)R. J. J. C. STEVENS will SELL the above by AUCTION, at his Great Rooms, 38, King
Covent Garden, W.C., on WEDNESDAY NEXT, Street, Covent Garden, W.C., on WEDNE On view morning of Sale, and Catalogues had.

\section*{Thursday Next}

MUuAble imported and established orchids. R. J. C. STEVENS has received instractions from Messrs. Lewis \& Co., of Southgate, to SELL by \(A\) UCTION, at his Great Rooms, 38, King Street, Covent Garden, W'.C., on THURSDAY NEXT, December 12, at halfpast 18 o'Clock precisely, a grand Importation of LAELIA AUTUMNALIS ALBA, in splendid health and condition: ONCIDIUM TIGRINUM, SOPHRONITES, se. Also a fine lot of ESTABLISHED OROHIDS, comprising Cattleya Eldorado, Trichopilia suavie, Miltonia Morelliana, Lycastes in viriety, Dendrobiums, \&C., ORCHIDS in FLOWER,
On view morning of Sale, and Catalogues had.

\section*{Monday Next.}

400 Lots of DUTCH BULBS, AZALEAS, PALMS, CAMELCIAS, RHODODENDRONS, \&C., from Belgium; CALOfrom Palestine, CARNATIONS. DWARE ROSES \&U LBS

MESSRS. PROTHEROE AND MORRIS will SELL the above by AUCTION, at their Central Sale, Rooms, 67 and 68, Cheappide, London, E.C., on MONDAY On view morning of Sale

Friday, December 13, at half-past \(120^{\prime}\) Clock
SANDER'S GREAT CHRISTMAS SALE. 10,000 ORCHIDS, WITHOUT RESERVE.
For Amateurs and the Trade, Lotted to sait all Buyers.
100 HYBRID ORCHIDS, - Parentages guaranteed. Splendid crosses, including Cypripediums, Dendrobiuma, Phains, Phaio-Calanthes, Calanthes, Leelias, Cattleyas, and LeelioCattleyas; full descriptions given in Catalogues. 1
CATTLEYA WARNERI. - A fine Consignment. Suporb varieties are awong them.
LELIA TEVEBROSA. - Found growing with O. Warneri, and from this circumstance, and the distinct appearance of the plants, the magnaficent natural hybrids.
Lefio-Cattleya gottoinna and L. C. ALbanense may be looked for. Both the C. Warneri and the \(\mathbf{L}\)
DONTOGLOSSUM YEXILI ARUM (G)
type).--Black-eyed Susan and Meraoria O. D. Owen illustrate this superb section.
\(\nabla A N D A C G E U L E A\), a fine consignment, probubly containimg schild, Lord Ardilana, J. Gurney Fowler For Roth
DONTOGLOSSUM CERTAFTPGII OW O.
both in fine condition, and both splendid MaJUs, winter-flowering Orchids.
L.ELIA ALBIDA, a fine importation; plants in grand con dition. L. a. gulphurea, Lo. a. Marianxe, Io a. Stobartiana,

L. Wendlandians, but poesibly ab bigeneric hybrid. put posibly an Epidendrum, of perhaps MLTONLA WARSCE
trleya
genuine old type Dendrobium planta of Swainson's anum, Cattleg), Oypripedium bellatulum, C. Rothochilditheya citrina, sce.
TO BR SOLD BY AUCTION BY

MESSRS. PROTHEROE AND MORRIS at their CAntral Sale Rooms, 67 and 68, Cheappide, London, oclock, by order of MRSSRS. F. SANDER C1-past Twolve On view Morning of Sale, and Catal CO.

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being an important consignment of 620 Cases,
comprising : comprising
18,428 LILIUM AURATUM
SPECIOSUM ALBUM.
LONG̈LELORUM.
KRAMERI, extraordinary bulbs
TIGRINUM SPLENDENS.
BROWNII.
MELPOMENE
RUBRO-VITAATM
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LEITCHLINII.
and 180
TESTACEUM;
98,000 SEEDS of KENTIA BELMOREANA, in exceptionally
44,000 \(\quad \because\) CORYPHA AUSTRALIS
\(\begin{array}{ll}20,000 \\ 26,000 & \because \quad \text { PHEENIX RECLINATA. } \\ \text { PTYOSPERMA ALEXANDRE. }\end{array}\)
2000 LILIUM HARRISII.
30) AZALEA INDICA and MOLLIS; 50 RHODODENDRONS; 20 Baskets CHINESE SACRED LILIES; 200 extra fine mase UYPRPEDIUM SEECTABIL ; 400 Imported Bulbs Fallota PUREUREA; 10 fine clean STANDARD NIGER; HERBACEOUS PLANTS; HARDY BORDER PLANTS. English-grown LILIES. BEGONIAS. 100 Lot of DUTCH BULBS; Rare AMERICAN BULBS and ESSRS. PROTHEROE AND MORRIS will SELL the above by AUCTION, at their Central Sale Rooms, 67 and 68 , Cheapside, London, On view morning of Sale, and Catalogues had.

SALE of the LEASE of the NURSERY and GLASS EREC
TIONS, in one lot as a going concern, and the 8TOOK IN
TRADE by AUCTION in lots.

MESSRS. PROTHEROE AND MORRIS, in conjunction with Messrs. BYRON AND RAMSLEY, are instructed by the Chesterfield Nurseries Company, Limited, series, Ashgate Road, Chesterfield, on WEDNESDAY and THURSDAY, December 18 and 19, at 11 o'Clock precisely each day, the INTEREST IN THE PROPERTY known as THE W ESTFIELD NURSERIES, comprising 11 Acres of Land, 18 Greenhouses, Heating Apparatus, 12 Brick Pits with Lighte Stabling, \&c. Immediately following will be offered in suit able lots the extensive Stock in Trade, consisting of 5000 Forns in variety; 10,000 Geraniums, 500 Asparagus plumosus and tenuissimus, 300 choice Cinerarias, 5000 Tuberous Begonias 200 Azaleas and Camellias, 600 Cannas, several thousands of including a fine collection of Pæonies; 4000 Carnations, best varieties; Dahlias, \&c.; a large quantity of Forest Trees, Conifers, 30,000 Fruit Trees, Apples, Pears, Plums, Cherries and Raspberries, several hundreds of Dwarf Roses, Myrobella Plums, and other Stock.
May be viewed three days prior to the Sale. Catalogues may be had on the Premises; of Messrs. BYRON AND RAMSLEX. 5, Low Pavement. Chesterfield ; of Messrs. SEPTIMUS SHORT AND CO., 14. Saltergate, Chesterfield; of the principal Hotels in the neighbourbood; and of Mesers. PROTEEROE AND N. B. - By a clerical error the addrese or the
N.B.-By a clerical error the address of the Property in last instead of the Weatfield Nurserios. be the Aahgate Nurserie

\section*{GREAT CLEARANCE SALE}

\section*{122,000 FRUIT TREES \& BUSHES}

\section*{18 FIXED for WEDNESDAY, DEC. 18}

By order of Mr. W. H OR N E, Cliffe, near Fochester.
Further Particulars Next Week
M ESSRS. PROTHEROE AND MORRIS, 67, OHEAPSIDE, E.O., are the Auctioneers

\section*{Tooting, 8.W.-Brightwell Nursery} TO NURSERYMEN, FLORISTS AND OTHERS

\(\mathrm{M}^{\mathrm{H}}\)R. JAMES E. FISHER is instructed by to SELL By AUCTION on their premises, Brightwell Nursery, Tooting, on WEDNESDAY, December 11, 1895, at 12 for i o'Clocl| punctually, the whole of their STOCK, consisting of large quantity of fine Arum Lilies in Pota, 100, Varieguted Aspidistras in Pots, 12 dozen Pots of Minettia bicolor, 5000 Geraniums, choice varieties; a quantity of Fuchsia, Indiarubber Plants, Ferns and Herbaceous Plants, \&c., 1000 Narcissus in Boxes, large Kentia Palm, Stephanotis and other Choice Plants. Handsome Iron-grey Cob, 14-3, five years old, and warranted sound, two gets of good sound Harnees, -wheel Fan, Quantity of Pots, Tools, Staging, Hoes, Cans and unanails in Trade.
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NURSERY GHOUND with GREENHOUSRS \& \& ground rent, for SALE, price \&50); or 14 years low at \(£ 1\) ground rent, for sale, price ejo.
ADply on the premises, late Hillier Road, Enfield Road, Southgate, No; or, Mr, DAVIB, CG,, Martin's Lane, Charing Cross, S.W.

\(T 0\)COTTAGE, and 12 GRLASSHOUSES, A six.roomod run, suitable for Cucumbers and Tomatos_-Apply, X., 52 , \&t.

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SUPERB ORCHIDS, CHEAP.-Thonands
 SEED POTATOS.-For Sale, Myatt's Prolifio G. F. YOUNG, Swineshead Abbey, Near Boston.
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 Strong cuttings, now ready, from 2 s . per dozen, 123, per 100 W. ETHEKINGTON, Swanscombe, Kent.

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Herbaceous Calcoolartas. -James' superb strati OHN FRASER, The Nurseries, South C Woodford, Essex, has a beautiful lot of the above th offer. The plants are strong and healthy; they are in evin ready for potting into \(48^{\prime \prime}\) or \(32^{\prime \prime}\) s.
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To Nurserymen, Bullders, Local Boards, Ventries. PLANTING TEEES and 8HRUBS THIS SEASON. OBERT NEAL, The Narseries, Triaits ch of FOREST BOSES, GRAPE VINES, FRUIT TREES, CLMIDTV PLANTS, \&c., which being grown in the neiphbourthod London are erpecially suitable for Town Plantiag. Abo 8 atock of axtra fine 8zAKALK and RHUBARB,

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Well furnished and well budded, with from sevea to twenty brds, consisting entirely of the reliable hardy kinds; the MAJORTTY BETVG ON THEIR OWR ROOTs, they are without oubt the best Rhododendrons in commerce.

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All the most beantiful varietiea, varying in height from 11 03 feet; the plants are covered with buds.

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15-oz. \(\quad 21\)-oz. \(\{12 \times 10,18 \times 12,18 \times 14,24 \times 14\) 4the \(7 \mathrm{~d}, 6 \mathrm{~d}\). \(10 \mathrm{~s}, 0 \mathrm{~d}\{14 \times 12,20 \times 12,18 \times 16,24 \times 18\)

Par 100 ft . Bor. \(16 \times 12,16 \times 14,20 \times 16,24 \times 18\), to
Flooring. 19 per pouare: Matching \(49 ; 2 \times 4\),
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A pare Nicotine Preparation (Patenter a new syatem), from duty. ree Tobacco. Absolutely sain, and no fear of injury to the Per Pint, 2s.; Quart, 3s. 6d.; \& Gallow, \(5 s_{\mathrm{o}}\); 1 Gallon, 10.

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PAULS' NURSERIES, Waltham Cross, Herts. Rerfully given. Gardeders of character and experience moommended.-Postal acdreas, WM. PAUL AÑ \&ON, Waltham Oroes, Herts.

\section*{UNEQUALLED ARE THE FOLLOWIMG For forcing :- \\ BUDS INNUMERABLE. RHODODENDRONS, finest named, AZALEA MOLLIS, in great variety. , GHENT VAR., finest in the Trade. PONTICA, unequalled. AN̉DROMEDA' FLORIBUNDA. JAPONICA. \\ KÄLMIA LATIFOLIA MYRTIFOLIA, very fine. RHBODORA CANADENSIS. \\ Dozens, Hurdreds. or Thousands, CHARLES NOBLE, BAGSHOT.}

\(\mathrm{A}^{\wedge}\)NTHONY WATERER respectfully invites from intending Planters an inspection of the following well-grown and finely-rooted EVERGREENS:
ABIE'S PUNGENS GLAUCA \{ COLORADO BLUE SPRUCE,
 These are all SEEDLINGS. The plants usually met with CEDRUS Grafted on the Common Spruce.
CEDRÜS LIBANI, 5, 6, 7,8 to 10 feei \(, 6,7\), and 8 feet ENGLISH YEWS, 4, 56 to 8 feet.
GOLDEN OHINESE JUNIPER, \(4,3,6,7\), and 8 feet. GOLDEN YEWS, Seedlings, perfect pyramids \(4,5,6\), and 7 ft . 8 tandards, 6,7 , and 8 feet
PICEÅ CONCÖLOR VIOLACEA \(\} 4,5,6,7\), and 8 feet.
\(\left.\begin{array}{l}\text { LASIOCARPA } \\ \text { MAGNIFICA }\end{array}\right\}\), 7 , and 8 feet.
PİNUS MAGNIFICA
THU LABICIO \(\} 3,4,5,6\), to 8 feet.
UIOP8IS BOREALIS. 5 to 8 feet.
HOLLIES, GREEN. Commor, up to 10 and 12 feet.
" \(n\) HAUURIFOLIA \(\}\) up to 10 feet.
MYRTIFOLTA
GOLDEN QUEEN
STLVER QUEEN to 10 fect.
WILVER QUEEN \} to 10 feet.
WATERER'S, and many other variegated kinds, PERRY' 6 feet.
PERRY'S WEEPING with straight stems and
TEW'̈, EKGLYDH, WEEPING 5,6 to 8 feet, and as mirch in dis Knap Hill Nursery, Woking, Surroy.

FRIDAY, DECEMBER 13, at halp-past 12 óclock.

\section*{SANDER'S}

\section*{GREAT XMAS. SALE} 10,000 ORCHIDS

\section*{WITEOUT RESERVE.}

For AMATEURS and THE TRADE. Lotted to suit all Buyers.
100 HYBRID ORCEIDS,
PARENTAGES GUARANTEED.
Splendid orosses, including

\section*{CYPRIPEDIUMS, DENDROBIUMS,}

PHAIUS, PHAIO-CALANTHE,
OALANTHE, LALIAS, CATTLEYAS, And LAELIO-CATTLEYAS,
Full descriptions given in Catalogues.

\section*{CATTLEYA WARNERI, \\ A fine consignment. Superb varieties are} among them.

\section*{LÆLIA TENEBROSA,}
found growing with C. Warneri, and from this circumstance and the distinct appearanoe of the plants, the magnificent natural hybrids, Lolio-Cattleya Gottoiana and \(L_{0}-C_{0}\) Albanense may be looked for.
Both the C. Warneri and L. tenebrosa are most varied and remarkable-looking.

\section*{ODONTOGLOSSUM VEXILLARIUM,}

\section*{Sander's radiatum typr.}

Black-eyed Susan and Memoria G. D. Owen illustrate this splendid section.
VANDA. CGRULEA,
A fine consignment, probably containing saoh forms as the huge-flowered varieties of Lord Rothsohild's, Lord Ardilann's, J. Gurney Fowler, Esq.'s, \&c., \&o.

\section*{ODONTOGLOSSUM CERVANTESII and} ODONTOGLOSSUM ROSSII MAJUS,

Both in fine condition. Both splendid Coolhouse, Winter-flowering Orchids.

\section*{LexLIA ALBIDA,}

A fine importation. Plants in grand condition. L. a. sulphurea, L. a. Marianæ, L. a. Stobartiana, \&c., \&o., will be found among them.

\section*{A LAELTA SPECIES?}

Distinct-looking plants, imported with L. Wendlandiana, but possibly an Epidendrum, or perhaps a bigeneric hybrid.

MILTONIA WARSCEWICZII.
A grand species, also knownss Oncidiam fuscatum.

\section*{CATTLEYA LABIATA, \\ Unflowered plants of}

SWAINSON'S GENUINE OLD TYPE, And Dendrobiam densifloram, D. nobile (from Annam), Cypripedium Rothschildianum, C. bellatulum, Cattleya oitrina, \&c., \&c.

TO BE SOLD BY AUCTION BY
MESSRS. PROTHEROE \& MORRIS,
67 \& 68, CHEAPSIDE, LONDON, E.C. ON FRIDAY; DECEMBER 13.


\author{
SATURDAY, DECEMBER 7, 1895.
}

ROSES.
THE National Rose Society has published a pamphlet entitled Hints on Planting Roses, oompiled by a committee appointed for the purpose. The work is intended for novices and amateurs, and is likely to be received by them with favour from the clearness and simplioity of the directions given.

The subjects treated of are the season when planting operations should be considered, the best time to order Roses, the best time to plant or replant them, the best method of effecting these operations, lists of Roses suitable for oultivation for various purposes. The following extracts will show the practioal nature of the little book, copies of which may be had at a cost of a few pence from the Secretaries of the National Rose Society, Rev. H. H. D'Umbrain, Westwell, Ashford, Kent; or E. Mawley, Esq., Rose Bank, Berlihamsted, Herts:-

\section*{How Roses ought to be Plantrd.}

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 inche 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 carefally 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 exposare to san or wind. A hole should then be dag about a foot square, and of safficient 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 operstion is completed. In the case of standards the hole should be 6 inohes deep. A plant should then be taken from beneath the mat, sprinkled with water, and held with the left band in the oentre of the hole, while with the right the roots are spread out horizontally and evenly in it, taking care that the roots cross ewch 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 fature wellbeing of Roses.
In the case of heavy soils, or where the ground remsins for any leagth of time in too wet a coon-
dition for the planting of Roses to be satisfaotorily 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 out. A spadeful of this ma'erial may then with advantage be placed both above and beneath the roots instead of the natural soil. Soil of this oharacter may be firmly trodden without oaking 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 whed inserting them in beds. Where Roses are planted in the spring the shoots should be pruned before planting.

\section*{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 inchen equare 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 reatored to them. It the soil be found poor and ansuitable, better soil from another part of the garden or some tarfy loam should be mbatituted. No grase should be allowed to grow within at least 6 inches of the atem of Standard Rosen planted on lawns.

\section*{Climbing ob Pillar Roses.}

For Climbing and other Roses of very vigorous growth the bole prepared for their reception should be 2 feet quare and 2 feet deep, and care be taken that the soil be of a suitable character and well enriched with manure. For it mutt be borne in mind that such Roes require mach more root-room than those which are pruned back every year, and ia most casel are intended to occupy the same ponition for many yeara to come. Therefore, any extra care and attention bentowed on the planting of strong-growing Rones, like those referred to, will, nonen or later, be well repaid.

\section*{Staking Standard Roses.}

As the planting proceeds, each plant should be secared to a firm atake of some kind. In order to avoid damaging any of the roots, the atake thould be driven firmly into the holes prepared for the reception of the plant before planting them. Dwarf of bash-plante do not need staking; bat, to prevent injary from high winds, all long growthe should be thortened previous to planting,

\section*{The Labrlling of Roses.}

Where there is only one plant of aby varisty, a parmanent label, with the name of the R 3e either written or printed upon it, should be attached to a amall atake placed near it, and not to any part of the plant itself; but when everal plants of the same variety are grouped together, or follow one enother, labols will only be neceasary at the begianing of each sach groap or row.

\section*{The Winter Protection on Dwarf Teas and Norsettes,}

All kinds of Reses should be planted in the way previounly dencribed. Teas and Noisettes and other tender sorts, however, require after planting some protection to be given teem, or they will be liable to injary thould an unually eevere frost afterward set in. Fortunately, Iwarf plant may be readily protected by drawing the wil over the centre or crown of them to the height of 3 or 4 inches. This will be found an excellent methcd, for, except in ex'reme cases, the plants are in this way saved from zerious damage, although the exposed portion of their ahoote may be deatroyed. If further protection be required, bracken or atraw may be placed loosely among them.
Ten Wixter Phomerion of Stakdard Trupes ayd Norsertes.
Ia most winters the insertion of bracken in the beade of Siandard Rowen, or tying their shoots to a secare central atake, and thatching them with atraw or branken, will be found to answer excellently.

\section*{Orchid Notes and Gleanings.}

\section*{ORCHIDS AT CAMBRIDGE LODGE, CAMBERWELL. \\ The collection of R. I. Measuren, Eiq., Cambridge} Lodge, Flodden Road, Camberwell, is rich in Cypripediums, and eapecially in the rare hybride, many of which have been raised on that place; and mach attention wat given to the crossing of C. bellatulam and othera like it, the reanlte being in some cases very fine, although many of these crosses have not as yet flowered. It show the adaptability of Orchide when properly managed, and peak much for the akill and attention given them by Mr. Chapman, the gardener. The hybrids of the niveum section of Cypripedium are not the eaviest to manage even in pure country air, much lets at Cambridge Lodge, which in, in fact, in London.

Two beantiful forms, now in flower, are C. \(x\) Annie Measares (bellatulum \(\times\) Dayanum), and C. \(\times\) Cbas, Richman (bellatulum \(\times\) barbatum), the latter now bearing a aecond inflorescence which, like that of the preceding one, is two-flowered. Other plant in bloom in good specimen were C. \(\times\) Leeanum Masereelianum, a very fine variety; C. tonsum auperbum with nine flowern, C. \(\times\) Statterianam, C. \(\times\) orphanum, C. \(\times\) T. B Haywood, C. \(\times\) regale, a pretty tinted flower; C. \(\times\) Ameaiana, C. callosum, the noble C. \(\times\) Allenianam aporbam, C. \(\times\) Carrierii, C. \(\times\) marmorophyllam, C. Charlesworthii, C. \(X\) Arthurianum. A great number of large specimens of C. inaigne were remarked fatt coming into lower ; the beat of those that were expanded being the clear yellow C. insigne Sanderæ, and the richly parpleapotted C. i. Cambridge Lodge variety, which among other characteristica has the flower bract atriped with purple.

One of the Cattleya-houres was filled with glowing plants of Cattloya labiata, carrying hundreda of flowers. The floriferounens of these plants will be understood, some of the plants in 9 inch baskets or amall pots carrying ten to fourteen flower eacb. The dark coloure predominate ae usarl, but the most prized is the white C. labiata R I. Meseuren' variety, which possesses no other tint than a delicate veining of pink on the lip, which only eerva to heizhten the attractivenens of the flower. Cittleya Hardyana and C . Bowringians add greatly to the diaplay.

The genus Masdevallia forms another featare of this collection, two houses now being uet apart for these planta, in which at present many aingularlooking botanical epecies are in flower, together with interesting Pleurothallis. The showy species of the former will not come into bloom till next apring and later. In other houses, an extensive collection of Vandes in splendid condition was noted; equally good Cgmbidiams, containing all of the apeciea, even the rare C. Traceyanum.

In one houve were Lalis parpurata and L. elegans in aplendid condition; in another warm-hoase the Phalænopais were flourishing, and everywhere there wat evidence of a keen intereat being taken in the various plante.

Saccolabivm ampullaceum, Lindley.
"Baing of dwart habit, it may be advantageoualy treated in baskets or teak cylisder, hanging from the roof, and thrives well under a regular temperatare of \(18^{\circ}\) to \(22^{\circ} \mathrm{C}\)., in a very bright and moist atmosphere. It requirea acarcely any ahadiag, as it leaves are thick and leathery, bat in ammer the hamidity of the house matt be maintained to near the saturation point, and the compont kept always alive and moist." Linderia, t. 1585.

\section*{Cattligas at Larege.}

Daring the present and last week or two there have been flowering in the Cattleya-house at Lieken many plants of Cattleya labiata carrying nearly 600 . flowers: and on one plant alone there were forty-two flowers fully open. This is a gorgeous Cattleya, free-flowering, and very easy to grow, and therefore canuot be too highly recommended, when flowern at this seaton are prizod. It is, moreover, very various in ita colouring, Laeken, Decomber 1.

Orchids at Castle Hili, Englafield Gruix. The renidence of George C. Raphael, Etq., is arp. rounded by a pleasant garden and pleasare-ground, in a part of which a commodions blect of hounea, convenient of access, is devoted to Orchid caltare, which seem to give more than the usual proportion of flowers at all seasons. On the occation of a recent visit, the Cattleya- houre way gay with flown of Cattleya labiata, nambering aboat 100 spiken in various stages. Among them there was much nriets, and some of the dark forms, of which C. labiate Raphael's var., is the bent, were very attructive, acarcely two plants bearing flowers exactly alike in colour or marking, and although popalar fance favours the dark varietien, the lighter ones are, in their way, equally beautifal. Arraaged in the house with these plante were some Cattlejasareasad C. Bowringians; a pretty plant of the fragract old Epidendram ciliare, Cymbidiam gigantem, Letin autumasalie atrorabena; the noble Vanda cesalea, Raphael's variety, with large, almost circular fowen, netted with violet; and fine varieties of Lelia anceps in bud.

In one of the warm-houses, Phalmaopnis thrive admirably, which is more than can be asid of thom in many collections. Some plante of P. violaces and P. rosea were in bloom, and othern showing for flower. In another house, in which a large plant of Mam Cavendishii bears a heavy bunch of fruits, and tho handsome M. coccinea is in bloom, were in flower Dendrobiam saperbiens and its variety, Goldiel; D. Dasrei, and some very fine D. formorum giganteam. At one end of the house, a noble ape cimen of Nephrolepis exaltata, some 8 feet acrom, was suapended from the roof; and Dendrobium D \(\downarrow\). houseianum had made many new growthe more them 6 feet in length; here also the plants of Ealophiella Elisabethe grow and flower vigorounly, and Cœlogyus pandurata had eight epiken of ite handsome emeraldo green and black flowers.
In another house there was a fine show of Dendrobium Phalenopais Schroderiana, of which Mr. Adauh, the gardener, is justly proud. The fine apraye of variously-tinted flowers arching over from either aide made a charming display; and not only are the plants grown to perfection, but the selection him been a happy one, for smong them are a lary number of au perb varietien, both light and dark.
Flowering in the Cypripediam-house were good pieces of C. Spicerianam, C. Charleaworthi, C. \(\times\) Io superbum, C. \(\times\) Leeanum, C. tonanm, C. \(\times\) Arthuro ianum, \&c., and in the other houses, among otber things, some good Cochliods valcanica, Plete lagenaria, \(P\). Wallichiana, Oncidium tigrinum, the aingular and pretty Zigopetalum Barkei, Aruadia Bamburefolia, Sopronitis, Odontoglosami, \&c.

\section*{Cattleya Bowringiana.}

Your correspondent, W. Dawer, in last wolk Gardeners' Chromicle, alks-"What it the grestat number of flowers known on a spiks of this apecial of Cattleya?" We had a plant recently in bloom in a 14-inch pot with six spikes (which I extibited at the Tunbridge Wella Show), one with ninatand one eighteen, two eventeen, one fifteen, one fourteen, flowers, on a spike. This is greatent number of flowera I have ever had 01 spike, although we have had the asme plant for them ten years. Perhaps ome of your correuposia will asy what their experience in with this appect Charles Earl, Somerhill.

\section*{NOTES FROM OAKWOOD.}

Liliom \(\Delta u r a t u m\) was enpecially fine in the nthe damp toil in the wood, and poor in the drier soil of the hill, owing to the hot dry weather. I thin is Ealaliar are not enough grown. A good clawe alway: a pretty object, and when antamn frown fors the flowers that are out, Ealalias atill ahow woll fot " time; besides the gracefal leaves, the flowers whin very pretty winter decoration. I bought anme from Japan, not knowing what plant prodaced sam till our Ealalia zabrina bloomed. This has fowne very woll this season, sad E. gracillims or aniry tre has had a few lowers with as for the first Ibliem Ealalis japonica variegata has not flowered. Iblied E. zebrina is the only one which can be relied o
for flowers. The tharp froste cut the Liquidambar a little, the leaves are beautiful, bat not quite up to the usual colour. Aponogeton dietachyon is flowering well. We have many Primromes and Gentianellaa in bloom. Iris Vartani han been beautiful. Gaulcheria procumbens clothing the niden of ditchen and

NEW TEA ROSE ENCHANTRESS.
It has long been difficult to obtain good Rose blooms under glas during the dull weather of the late autumn and early winter monthe, before the forcea bloome are available, and for thin purpose
crop of young bude in various atages of development, promising to unfold durisg the winter monthe. Enchantress is the result of a cross between a Teaacented and a Chinene Boes; the bloomare creamywhite with deeper centrer, inclining to the globular ahape, and produced in great abuadance on the plante.


-
on bank in full sun in alwaya pretty, the red fruit taking the place of fiowerm. The North American Cranberry, Oxycoccus macrocarpa, at the ide of a pond makee a pretty carpet, and hat fraited very freely. The frait in excellent atewed and in tartaI think better, from being frember, than the Ranian Cranberrien. George F. Wilson,
M. ars. Wm. Paul \& Son's new varicty Enchantreas, for which they obtaiped an Award of Merit at the recent meetiog of the Royal Horticultaral Society, is particalarly valuable, as the plants exhibited were covered with large numbers of fine cream-coloured blossoms possesing all the desired qualities of sizs, fulnent and fragrance; there was also a plentiful

In acdition to ite value as a late blooming variety ir. doors it is a fine bedding Rose, for throughout the sammer and early autumn, plante growing out-ol-doort in the Waltham Cross nuraeries were covered with a profusion of most beautiful flowera, which continged anfolding until the evere front of lat Oc:ober so suddenly put an ead to all outdcor Roses.

\section*{FRUIT GROWING FOR SMALL GARDENS.*}
\[
\text { (Continued from } p, 612 . \text { ) }
\]

Prams.-We next come to Pear. These are not auch certain croppers as Apples, and during wet summers lowe a great deal of their flavour, and do not keep so well; however, when they are good there is no fruit to beat them, and they whould therefore be grown, but in amaller proportions than Apples, where room is scarce. There in no really good Pear worth growing for July and Aqgust; Jargonelle is perhap the best, bat it is very difficalt to get it just right, as it goes aleepy without warning, and for that reason is not to be recommended. [Gather it ere it is quite ripe, and keep in a cool room for a day or two. Eid.] September, Willisma' Bon Chiétien; October, Louise Bonne de Jersey (Fondante d'Automne) \(\dagger\); for November, Marie Louise (d. s.) (Emile \(d^{\prime}\) Hepat); November to Dscember, Doyenné da Comice; January to March, Dachesse de Bordeaux; February to April, Josephine de Malines. Nearly all Pears will do for atewing before they are ripe, and wiadfalle come in very handy for this parpose; but a very valuable Pear, grown exclusively for baking, and ready from December to March, is Catillac.

Late-keoping fruit must always be left hanging on the trees an long as possible, a it will then keep better, be more fally flavoured, and should not be picked until it readily parts from the tree, except in places exposed to high winds ; in many instances a greater portion of the leaves will have fallen before the fruit is ready for gathering, and this should only be done during fine bright weather, with as little handling as posible. A large number of fruitm noon ahrivel, and often do not keep through being picked directly a few premature windfalls occur (which are invariably worm-eaten), instead of being left on the tree.

Sound fruit whould be atored in a dark place, free from frost, and well ventilated, on slotted shelves, easily accesnible; and care should be taken not to mix any diseased or bruised fruit with it.

\section*{Plums and Chiraries.}

We will next turn our attention to Plum: and Cherries, about which little need be said, as the cultivation suitable for Applen and Pears is equally anitable for these. They are usually grown ay trained treen against a wall or fence, where they aucceed well, and are easily protected from birds ; they will do equally well as pyramids, where they can also be well protected from birds by the use of the garden-webber, which will be found very handy for Carrante as well; black cotton is better than white, as the birds are unable to nee it until they become entangled, and are therefore much more frightened.

The following varietien of Plums are good, conetant bearers: end of Jaly and beginning of Aggat, Rivern' Early Prolitic, a deep parple; Augut, Denniston's Saperb Gage, greenish-yellow; September, Victoria, bright red on anny aide, and yellow on the other ; October, Coe' Golden Drop, light yellow, with dark red apotu. Gather ripe fruit of Coe's Golden Drop Plum, wrap them separately in tiasue paper a week afterwards, and atore in a niagle layer in a cool, dry room. Fruit treated thus will keep autil Chriatmas. Probably the bent all-round Plam is the Victoria, of which euch large quantities are annually brought into the market. It usually bears very abundantly, and should therefore be thinned thortly after the fruita are formed, and later on, when nearly fully formed, can be again thinned, and used for preserving, bottling whole, cooking, or stewing; the remaining ones on the tree will then grow to a good mize, and make aplendid dessert fruit.
The following Cherries ape good bearers, and wellflavoured aorte: ond of Jane, Early Rivere, black:

\footnotetext{
* Extracte from a Faper read before the Streatham Hill Agaseiz Soclety, on Oct. 25, 1893, by M1. J. C. Waltham. Those in pxientheses give a more oxtendel list of goot
}
beginning of Jaly, May Dake, dark red; middle to end of Jaly, Bigarreau, red on sunny side, yellow on shaded nide ; Augast and Soptember, Morello, dark red, but this is only aitable for calinary purposes and Cherry-brandy. If only one is grown, choose May Dake.

\section*{Gooseberries}
require somewhat aimilar treatment as to planting and praning, and are uaually grown in the shape of a bush, and are not unfrequently allowed to grow into a tangled thicket, making it very difficalt to pick the frait, which is then very mall and not fully flavoured. A general rule to be followed when proning, is to allow a clear \(6 \cdot\) inch space between each branch, and if praned in the aummer, it will make it far easier to decide which shoots to leave and which to cut back, as a tree looks very different when covered with leaven than when denaded. They are easily raised from cuttings. These should be firm, hard, and free from pith, about 15 to 18 inches long, from which every bud and apine must be picked off for about 12 to 14 inches of its length, so that 4 to 5 incher can be inserted in the ground, leaving a traight stem of 9 to 12 inches high; the cutting is pruned back to about four or five eyes above this to form the brancher. When these have grown about a foot, they hould be shortened about 9 inches to prevent them from drooping and eventually touching the ground. The fature praning hould be carried out on precisely the same lines as already explained with Apples and Pears, except that when a strong vigorous growth forms in some convenient part, it can be left with advantage, and the old original branch next it can be cut entirely away-provided, of courae, it does not crowd the bush. They can be planted about \(2 \frac{1}{3}\) feet apart while young, and when they touch each other, the intermediate ones abould be dug up and replanted elsewhere, 5 to 6 feet apart. They are also grown in the form of a three-prong toasting-fork, either against a wall or wire fence, where they take up but little room and bear remarkably well. They should be planted 18 to 20 inches apart, so that each branch is 6 inches from its neighbour. If the young wood made during the year is under a foot long, the buehen require manuring when the fruit is setting next spring, but not otherwise.

Gooseberrien are often infeated with caterpillarn, which if not checked, will seriously injare the tree. They may be got rid of by dusting the treen all over and under with lime after a heavy dew; thim hould be repeated two or three times. [Shaking them off on to calico theets is effectual. Ed.] Sparrows and finches also attack the bads in spring, bat the use of the garden-webber will soon prevent their depredation. The beat kind to grow are, Whitemith, white; Early Sulphur, yellow; Keepaske, green; Warrington, red-this is a good variety for training gridiron fashion; Red Champagne is the fullent flavoured for desmert, bat it doan not bear quite so freely as Warrington.

\section*{Red Currants}
are uaually grown in the bush form, but the beat ahape is probably for the head to form a cap, atanding on a stem about 9 inches from the ground with branches about 6 inches apart, and when once formed they give no further trouble, as no fresh growthe are allowed to form, every one being cat back to two eyes when they appear, and if the branchen have never been allowed to grow more than 1 foot a year, the buds will develop all the way ap, from which clatters of Currants will hang. Seven branches will unally be found afficient, and when from 4 to 5 feet long they should not be allowed to grow any more; that, in foar or five year time, the tree will be fally grown. At the bude are a taty morsel for the finches in the spring, they should be protecter, otherwise one hav to moarn the absence of fruit, and the trees are reduced in bearing propertien for the next year or two. Under these circumatancen, it is better to portpone the autume praning till late spring, as the birds will then take the buds on the
new growthe, which are to be cut back in prefernem to those which are retained at their base, \(\mathbf{A}\) rery handy form which is sometimes adopted, is to grom the tree in the form of a miniatare atandard, with a stem 3 to 4 feet high, and a head as above deacribed; Strawberries and vegetables can then be grow underneath. Manuring and cultivation are the nme as for Gooneberrien. Red Datch in the betf for either bushes or atandards, and White Datch is the best white sort, of which one bush will unally bo found sufficient.

\section*{Black Currants.}

There in no easier fruit to grow than tho Black Currant, which require no training or thaking whatever. Ualike all other buahe that haro beod described, suckers are induced to grow up from the roots every year, at the fineat fruit in borne on the young wood; the older and weaker wood is cas ook no soon as the fruit is gathered, to allow the tree to confine its energy to producing healthy new thooth, which should be left about 5 or 6 inches apart.

The earth around Carrant-bushes and Raspberris should never be dag up, an they produce fibrose rootu, but elighfly picked up with a fork and manared every year with a top-dreasing, which also protects the rootl which are near the surface from injary from frost, and from becoming dry during aummer.

Black-fly often attacks the point of the new shoots, caraing the leave to curl up, and the Carrant bad-mite is sometimen very destractive, The easiest method to get rid of them both is to culs them off and burn them. Black Champion and Lee's Prolific are the beat varietien to grow.

\section*{Raspberries.}

If one part of a garden is moister than another Raspberrie will do better there than elsewhere, a they require a good deal of moistare, and the noil should be thoroughly good for at least 18 inchen deep, to enuure strong canea and large fruit. After planting in the autumn, the canes should be cat down to about 9 inchen from the ground to induce them to make good-sizad roota, and thus lay the foundation for atrong, healthy atools; if thir in ant done, however strong the caner may be, all the energy is expended in prodacing frait, with the reault that the next-year canes will be thin and weakly, and the atools rained. When the mooll are well established, from aix to seven of the atrongent canem should be allowed to grow each jour, and the remainder, together with the old canes, whet fruiting is over, should be cut right down; all grow. ing rooted suckern-of which a large number grow every year-should be pulled up, and if planted again, they will form new etool. In the autamn, tie them securely to a stake, reduce the two oataide ones to 15 inches from the ground, two of the others about 30 inches, and the remainder about 4 to 5 fot ; fruit will then be produced the whole way up the buah.
When planted to form rows, two lines of wire os lath should be run 2 and 4 feet from the ground reapectively, and the alternate canes reduced to sbout 2 feet, and the other about 4 feet 6 inches to 5 feet; the atools should be 6 incher apart, and tho row from 4 to 5 feet, according to the height tho canes are left. There are nome short standing kinds which do not require atakes, and are uually gront extensively for market purposen, Carter's Prolific being the best for this purpose; Superlative ir, holl ever, the beat of all, but requiren takes. The Strawberry is the last fruit I propose to deal with this evening, for, although Peaches, Nectarinel, and Apricots should, perhaps, have been incladed, they require apecial walls, localities, and treatmexh which excluder them from general cultivation if mall gardens, and are, in fact, far better growa is cool orchard-houte.

\section*{Strawberbies,}
like all other plente, require to be carefully planted. It is no use making a hole with e dibbor, forcing the roote in, and treading the earth in on top of them like 0 many Cabbage-plants, and thell expect them to grow when probsbly two-thind
have their head covered up，and the remainder half out of the earth．Separate holes must be dug， the root well spread out all roand，and the earth gently，bat firmly，preseed down all round，if we want to procure the atrongeat and healthieat plante， which at the same time meanalarge fruit．
They reproduce themselve by runners．The earlient of these，when required to form new plants， ehould be pegged down firmly to the groand，bat better atill on to the anderside of newly－cat tarf without Couch，or into small pote containing rich oil，when they will be ready for planting out daring Auguat，and commeace bearing fruit the following year．They ahould be planted about \(1 \frac{1}{2}\) to 2 feet apart．The runners that are not required should be cut off an they appoar，as they weaken the plante．

As the beds only last in good condition four or five yeart，otherm thould be planted permanently in another part of the garden to take their place when it is seen that the old ones are giving out．

Daring the firt crisp frost in autumn，all runners and rubbish having been cleared away noms time previously，and the ground between the rowa lightly pointed over with a fork，turning in a little short manure（deep digging with the apade being injo－ rious），cover the ground 2 or 3 inchen thick with partially－decayed manure containing a good amount of atable dung．This must not be packed closely around the plants；it will be washed by the winter rains and be perfectly weet by the apring，forming a close clean cuahion for the fruit to reat upon．

The malch also prevents the eacape of moisture from the earth br evaporation，which is retained for the apport of the planta and crops－a most im－ portant point in dry，hot weather．It also asves the trouble of putting clean atraw under the trusse of fruit，which is lisble to be injured by the process， and prevents the untidy appearance caused by the straw blowing about the garden．

The bent kinda to grow are：early－Noble，or Keen＇Seedling；medium－Sir Joseph Paxton； late－Lateat of All，or Waterloo．

As well－rooted and well－grown varieties of frait treen，true to name，cont no more to buy and culti－ vate than do those of an inferior kind，it is essential that they hould be procared from growers of repate．

When a plot of ground is to be set out with treen it is better to commence planting the centre with the late－keeping kinds of fruit，no at enable the early kind and those that are gathered direct off the tree，to be as near the pathe as ponsible when they are easily acceasible during any kind of weather， and the ground in not so mach trampled upon as when planted in the centre．

All trees，at they com 3 from the nurwerymen，have label attached，which soon rot or become illegible， and as a great deal of the interest is then lont， permanent labels nhould be attached as moon as ponible．The mont aitable kind can be pro－ cared of Mr．John Smith，Royal Label Factory， Stratford－on－A ron．
Usoal Distances for Planting Gabden Frutt Trres and Buthrs．
Apples，pyramide or buehes on Crab， 6 to 12 ft ．apart． Paradize（clong－ pruned）， 3 to 5 feet apart．
u）expaliers，horizontally－trained， 15 feet apart．
＂cordons，same as Pears．
，gridirons， 8 feet apart．
Apricote againat walls， 15 feet apart．
Cherrien，disto，fan－trained， 15 feet apart．
＂pyramid，or bushen， 6 feet apart．
Carrants and Goomeberrien， 4 to 6 feet apart．
Figs againat walls， 10 feet apart．
Filberts and Cob－nats， 12 to 15 feet apart．
Nectarinen and Peaches against wall， 15 feet apart．
Peare，pyramide or bushen on Qaince， 4 to 6 feet apart；if on Pear， 6 to 12 fest apart．
＂cordons，upright or oblique，on walle， 2 ft ．apart．
＂\("\) doubles，at edgings， 12 feet apart．
＂＂ningle，as edgingi， 6 feet apart．
Plums，pyramida or bushen， 6 to 10 feet apart．
s againat walle， 15 fect apart．

Fruit Traes Softable for Special Aspects．
North Walle．－For Morello Cherries，early Peara， Plums and Cherries for keeping，late Carrante，and Gooseberriey，as trained treea．
East Walls．－For Plums，early Cherries and Pears， early Carrants and Gooneberrien．
South Walls．－For Apricots，Peacher and Nec－ tarinea，very early and very late Pearn，Plums，Grapes and Fig．

Weat Walls．－For Pearu，Plams and Apricots， and the hardier Peaches，Nectarines，and late Puars． For wails not facing the cardinal pointe，a com－ bination of the kinds may be tried；thas north－west would take those both north and west，and so on．
\begin{tabular}{|c|c|c|}
\hline \multicolumn{3}{|l|}{Number of Tambe，mici，requiked for} \\
\hline \multicolumn{3}{|l|}{2363 at 12 ft ，apart for Strawberries．} \\
\hline 0，890，1 2 ft ． & ＂ & cordon treee or Strawberrie \\
\hline 4.840 ， 3 ft． & ＂ & pruned Pears on Quince，or Apple on Paradise． \\
\hline 2，722， 4 ff ． & & do．do．do．，or Groseberries \\
\hline 1，742， 5 ft ． & ＂ & and Carrents． \\
\hline 1，210， 6 ft． & ＂ & do．，or partly－praned Pyra－ mide． \\
\hline \(899,7 \mathrm{ft}\). & ＂ & Apples on Crab． \\
\hline 680 ， \(8 \mathrm{ft}\). & & do．do． \\
\hline 537 ， 9 ft． & & do．do． \\
\hline \(435,10 \mathrm{ft}\) ． & ＂ & feathered Applez or Pium． \\
\hline 360.11 ft ． & & do．do． \\
\hline \(302,12 \mathrm{ft}\) 。 & ＂ & bush trees，pyramidy，half－ tandards，and Nuts． \\
\hline \(257,13 \mathrm{ft}\) ． & & eapaliers． \\
\hline 222，14 ft． & & do． \\
\hline 193， 15 ft． & ＂ & atandard Plame，Damsons， or red Cherries． \\
\hline \(170,16 \mathrm{ft}\) ． & 3 & do，do．do． \\
\hline 150，17 ff． & & do．do． \\
\hline 134， 18 fr 。 & ， & do．do． \\
\hline 120．， 19 ft． & & do．do， \\
\hline 108，， 20 ft 。 & & atandard Apples，Peary，\＆c． \\
\hline \(75,24 \mathrm{ft}\) 。 & & do．，and Cherrien． \\
\hline \(48,30 \mathrm{ft}\) ． & ＊ & Cherries，where pastured nnderneath． \\
\hline \(40,36 \mathrm{ft}\) ． & ＂ & Cherries，or large－growing Applen． \\
\hline 6， 40 ft & & Cherries，or atrong Pearr． \\
\hline
\end{tabular}

In plantation where there is both a top and bottom crop，the standards may be placed at the greater distances，recollecting that Applem and Pears give a heavier ahade than Plame．＊

One of the best books on the subjsct before as is， Profitable Fruit Growing for Cottagers and Small Holders of Land，by John Wright，F．R．H．S．，pub－ lisied by E．H．May，171，Fleet Strest，E．C．，and was a prize ensay，in competition with soveral others， read before the Worehipful Company of Fruitorers in 1889.

\section*{INDIA．}

MADRAS．
The Proceedings of the Agri－Eorticultural Society of Madras for April to June，1895，include reporth of the proceedinga，notes on Araucaria need，Euryale ferox，and Liberian Coffee，the Jast two items being of especial interest．

The Superintendent of the Baroda State Gabdens．
Mr．J．M．Henry，the former Saperintendent of the State Gardens，who，after serving about twelve years in the presidencies of Madras and Bengal，and sixteen yeari in Baroda，closed his Indian career lately，and left for Eogland to atart in buinean with bia son．

Coming from the Royal Gardens，at Kevr，in 1867， Mr．Henry was one of the oldent Kewite in India， He was，both as a gardener and a companion，highly eateemed and reapected by all hin numerous friends，

\footnotetext{
＊The paper was illustrated with practical demonstrations of the various methods of grafting，samples of well and badly－ grown branchee，besides a good collection of the abore－named truit．
}
and everybody heartily joined in aubscribing to a present conafiting of a very fine breakfant glas set， in a nilver frame．

Many of hir gentlemen friend met at a dinner－ party，when in the courne of a apeech proposing the health of Mr．Henry，and wishing him Gos－speed， Professor Littledalo aid：－＂As regards his work es Saperintendent of the Gardena，I may say，that although the extraordiaary development of gardeuing in Baroda，uader His Highnesa，has necessitated the calling－in of other trained professionale to astiat in the work，wo cannot forgat that it was chiely Mr． Henry who traced the original lines upon which he and others have aince been working with auch good tavte and marked effect．Mr．Heary will not onily be miased horticulturally，but also socially．He has kept up a very popular gymkhana for years，and his hoase has been an ever－open resort for his troops of frieads． When he goes he will not leave a single enemy behind him at Baroda，but all of us who remain here will remember him with love．＇
Mr．Heary，in reply，anid ：－＂When I arrived here in November，1879，the park was oo only in name． By the generosity of the Maharajah it is now aecond to none in India，Makarpara was a wildernens which took you half a day to reach，by reason of the badness of the roads．Now you may reach it in twenty minates with a fairly good horse and trap．When you do，what a paradise！All the old dilapidated dwellings，with which it was the rale to eurround palaces in olden times，cleared away；in their place， green lawns，floarishing Palms，and flowering plante． Laxmi Velas in a new palace，the foundation of which was laid shortly after my arrival．It tower，domen， and minarete are landmarks for miles－＇bonomed high mid tufted trees＇in a magnificent garden and park of about 1000 acres．Umrat，our seaside resort，in a natural gem or oasia in a wilderneas of mand，beau－ tified and made a royal reaidence by the ame hand． Time fails to enumerate all the improvemente done and proposed to be done at Umrat，but a few more of the mont important I will mention．The anad that surrouad Ucarat at a wildernese are to be planted with Cocos－nuts，and also all the cea coast for miles，now a sands denert．The arid plainn and dry hill－top of the Kadi dietrict are to be reforeated． Roadeide treen are being planted in every district， where the heavy－laden and weary may lie down and reat．Plans and entimates are in course of prepara－ tion for gardens and park for every town of any aize in the whole of the Maharajah＇s domain，beginning with those with \＆population of 15000 or upwards． For every State bungalow now bailt，the eatimate containg an item for the formation of a garden．I trust my accensor，Mr，Krumbeige，may be given the atrength and the leagth of life to see the fruite of his labour．＇

\section*{THE DORMANT PERIOD IN PLANTS．}

A frorrfol caune of failare in the cultivation of exotic plant is dus to ignorance of the climalal condition uader which the plante grow in the land of their origin，and eapecially the proper meason for reating．In temperate climen，where the winter and sammer are pretty clearly defined，deciduous plants diacard their foliage as the year＇s temperature declines，and appear during the winter either as leaflest objects or inconspicuous collections of dormant bads more or less hidden by the soil．Ever－ green plants，on the other hand，retain their foliage till the spring，but only，at it were，on sufferance， active growth ceasing almost entirely，and the verdure only persisting by its owa iaherent toughnese．This is easily seen by our familiar Christmas decorations， where the Holly，Ivg，Laurelg，\＆ce，last green for weeks anleas placed in hot，dry rooms，where they periah by desiccation．
The renting period in these cstes in clear enough， but it is another matter altogetber when we import plants from tropical and anb－tropical regiont，where the difference between the seasons may be very amall indeed an regarde range of temperatare，and altogether dependent apon widely varying conditions of drought
and moistare, so that instead of haviog a warm and cold season, with a fairly evenly distributed rainfall throughout the jear, we have a wet and dry season, with a constant high temperature. Under such conditions, we naturally find indigenous plants to be very differently constituted to ours, being fitted at once to withatand exceasive drought and heat during their renting period, and to aasame active development at short notice immediately the rains begin.
Now, these periods of drought and moisturevary conviderably on different parta of the earth's surface, and the native plants adapt themelves in conformity to it. Nor is this merely a case of latitude and longitade ; for if it were, the matter would be comparatively oimple, and the native country of a plant would determine its needs within certain fairly-defined limit. Elevation above the nea-level is, however, a most potent factor to be dealt with, and if ignored, leads to many mistakea being made in the methode of cultivation paraued. In the tropice we may by ancending the loftiest mountains, past through every grade of climate from the hot plaint of the ea-level, with an average mean temperature of \(80^{\circ}\) or 10 , to the region of perpetual snow where only the hardent alpine aurvive. Yet, deopite this obvioua fact, many a plant has been collected, and safely transmitted from high, cool regions in the tropics, only to die in a warm atove, where they have been placed because they came from the tropic, where a high temperature bas been presumed to be universal. In several cases, presumably dead plants of this category have been thrown to the rubbith-heap, only to astonish their owner by braving the elements, and obtaining a new leaue by their accidental exponare to conditions more congenial to their needs.
A curious feature in this connection is the great fastidiousnest of some planta, which will only thrive if their natural condition be very clonely imitated, and the cosmopolitan tastes of othere which will stand most diverse treatment with impunity. Oar native Atpleniam marinam, for inatarce, which thrives on our western cossts, where it mast occasionally be sabjected to some frosta, revels in a hothouse treatment, and becomes a hage and much robuster plant. Sach wide adaptability is, however, the exception, hence it is of great importance to the gardener to know something of the native natural conditions of growth, temperature, and hamidity, and above all, when ind how the plant asaumes ita dormant state, and for how long it maintains it. With plants which are to be forced into flower it is essential to withdraw them from all disturbing influences, and knowing when the dormant period is due, to lead up to it by reducing hest or moistare as the case may be, and maintaining them under auch conditions until it is desired to start them into growth. Then the application of heat and moistare will be followed by a healthy vigorou growth, accompanied by an immunity from vermin, the presence of which is only too often an indication of a previous too short sleep, and consequent weaknena.
The period of reat seeme, as we have indicated, to be determined mainly by the nature of the seasonal changes to which the plants are aubjected in their native habitata, but in some caese it appeart to be independent of this. The balbe of Hyacintha, Talipt, and other apring-flowering plante are bays daring the winter in forming their roote and even their leaven whenever not actually frozen up, and quite early in the year, little later indeed than many other plants that are beginning active growth, and long before the ann has attained very great power, they have flowered and formed new balbe, their foliage has died down, and they lie in the dormant atate for many montha, only awakening when winter has agnin net in. This neema a very atrange provision of nature that a bulb ahould resiat all the vivifying influences of summer ann and shower, and wake up into active life when the aoil is at or below freezing-point, and the great balk of vegetation dead or sali ep. It would be interesting to know how these baibe would behave if shipped direct to the Antipodes in the apring. In thors
cases where 'the cycle of life has been fally completed, and the whole vitality of the flower is compreased within the rootlen bulb, it seem: feasible that if they could be at once aubjected to their normal growing conditione, they could hardly be weakened by loning their rest; though, on the other hand, it must be assumed that some sabtle recaperative process is going on in resting plants akin to that which renews animal vigour during sleep, or otherwise the shortening of the period of rest could hardly be so detrimental an it is, even when favourable conditions for growth accompany the reawakening.

With regard to Antipodean plants which have long been introduced into this country, wach as the New Zealand Todean superba and pellucida, they have fully adapted themelves to our climate, and rise in our early spring at preciely the time when at home their growth would be ceasing. How long, however, anch a change take to establish, we do not know. Amongst our native Ferns we have noted a certain obatinacy in retaining the home periods of awakening deciduous Athyria found in Scotland, atarting into growth a week or two later than southern finds even after years of calture under like conditions. Polypodium vulgare, enpecially in its varietal forma, demands, curionals enough, a mach longer period of rest, or rather atart into growth under glase very much later than normal planta in native habitats. They often, indeed, nhow no trace of atarting under glass until July or even Anguat, and this with perfectly cold cuitare, so that the lateness of their atarting is not to be attributed to growth annaturally maintained by warmth long after the normal dormant period should begin. This case in anique in our experience, caltare under glans inducing, as a rule, and as one would expect, a somewhat earlier development than out-of-doors. Seedling, an a rule, are more precocious in their growth than old plante, and quite deciduous Ferna, like Athyria, with very little warmth indeed, will the firat year retain their frond right tbrough the winter, though laterinothing will prevent them dying down in the normal way in autumn, We have found, however, that even in a few generations, it in possitle, by alective calture under glans, to conaiderably lengthen the growing period of Athyriuma, shortening the dormant period in equal measure. Most of the plamone superbum section of this species remain quite green for fully a month after all their immediate progenitor: in the same house have withered entirely down. One form, indeed ( \(\mathbf{A}, \mathrm{f}_{0}-\mathrm{f}_{0}\) plamonum, Druery), is perfectly green at the time os writing (enả of November), and has been ao at Christmas; while, on the other hand, without any atimulus beyond its own inherent robustness, it riees into active growth a full month before its fellows. One year, indeed, a robust growth atarted on Dcc. 2, before the old fronde had even turned colour, but frost immediately after stopped its progress.
It would almont seem by this cane that further nelection might eliminate at one and the ame time the deciduous nature of the species,' and the dormant period also; this latter being decidedly reduced one-half in two generations, and nearly as much in one, since its parent is not far behind it in the long retention of its verdure, while the grandparent growing by their aide, dies down as early and as thoroughly as any Athyrium we are acquainted with.

How long the actual dormant period is, an compared with the apparent, is an open question, as well as that of the recaperative or atrengthening procenses which andoubtedly accompany them. The root certainly commence to be active long before there is any aiga of life in the crown. Hyacinth bulb grown in glanes are a familiar exemplification of this; and as regarde Ferne, even in the depth of winter the crown will be seen to be fattening up, implying great root activity and proparation for the coming rapid growth in the spring. It is highly probable, therefore, that in mont, if not in all carem, mach of the dormancy is more apparent than real, and that a good deal of secret and aubtle work is being done, of which we know little or nothing, but the need for which is evidenced by the weaknens
anbequently shown when the dormant period is unduly curtailed, and thene processen are interfierel with. Chas. T. Druery, F.L. S.

\section*{THE FLORA OF THE AMOUR LITTORAL}

The vegetable covering of the Amour country in luxariant and peculisr, and displaya a grat difiterece from the floras of adjacent parts of Siberic. Bre the woody vegetation exhibits a striking dinimilurity to that of Siberia and Transbaikalia. With the ordinary Siberian races of Conifers are here anociats the Mandcharian Cedar, the Pitch Pine, Abien ibibina, and an ally of the Conifers- the Yow peculiar to the mountains of the Cancasus. The flora of the folligy trees is very rich and varied, as it here meeth then beneficent influences from the eastern ocena, The genus Tilia is represented by two pecoliarly euten forms, T. cordata, Mill, and T. mandehurice, Rupp. et Max. The Maple, a stranger to the whols ol Siberia, has here four representatives; the Apple appears in Transbaikalia in the shape of a very mall fraited variety. Pyras is here represented by beautiful apecien, Pyrus unsuriensia, Maxim; and tho bird Cherry-Prunus Padus-by two local varietien Two local apecies of Walnat embelliah the foreta of the Amour, viz., Jaglan* mandeharica and J, tenocarpa Max.; and the Ash by a localied apecien unkoown to Siberia, Fraxinas mandecharicas, Rupa, With the European varieties of the Elm is ausocited Uimas montana [c momestrin ?]. Winckl. There in dioo a new apecies of Hazel, the Corglas mandeburien, Fioally, among the Birchea reappear a Kamtehuts variety, Betala Ermani (Ulmifolia), Cham.; and one local timber tree, B. costata, Trantr. Tho charming little tree of the Amour conntry, with a palmy crown, Dimorphanthus mandeharicus, Ruppr, is far removed from the Siberian species. It belooga to the natural order Araliacea, which loves a moint climate. Not less remarkable is the Cork tree of the A mour, belonging to the family of Xanthoxyluctan nowhere to be met with in the whole of Ruuia.

The abrabs of the Amour country are atill mon pecoliar than the trees. No fewer than twenty-fout apecies here met with are entirely new to anjuan arriving from Siberia and Tranabaikalia. Of then, three are climbing planta. They are, firto of ath a beartifal plant, pertaining to the rare family of Schizandracem, with pale rose-scented flowerr and red berries (Maximowitchia chinensia, Rupreds), apreading from Northern China through Mandeburis to the Amour ; a species of Vine, very alighty dip tingaiehed from Vitis amurensia, Ruprecht. Th apecies of Clematis appearing here belong to the nme climbing ahrubby variety of that genus. Of the tro apecies of local Barberry, one is alno peculiar io Northern China, Berberis ainensia, Desfontaine, too other, Berberis amurensis is local. The very carioul ahrub, Actinidia kolomikta, Raprecht, covered mith large white-scented flowers, has not yet found a atrictly definite position in syatematic botany, bed now classed with one and again with another of tho natural orders.

Of the four varieties of apindle-tree there in othe Eaonymusalata, Thunberg, which is alco foomd in Japan; and three local apecies, viz, E. paciliorah, Maximowicz, E. Maackil, Raprecht, and E. mactop terus, Raprecht. Of the Leguminoter, the small onrith found here, Lsepedeza stipulacea, Maximowicz, tho grows in the environs of Pekin. Of the Romerny the local apecies of Cherry, Prunua glandulifioinh Raprecht, and Meadow-sweet, Spirres amuretion Maximowicz, are shrubn. Two local specien, longing to the mame genus an our no-called grith Syringa (Philadelphus), are a conapicaous ment of the foreste, viz. P. tenaifolias, Raprechis of P. Schrenkii, Raprecht. The beantifal local sirais the mame family, Deutzia parviflora, Buage, il of Chinese plant, apread by cultivation. To the famia Araliacess, not met with in Siberis, belong two Cuis common to this fiora, and that of Northern Chinem Of the Honeyauckles there are here on and in apecies and two local, Lovicera Manckia Northat
Maximowitachii, Ruprecht. Common to Nol

Ching in a species of Lilac occurring here on the akirts of the woode, with somewhat minate wbitish flowers, Syringa amurennis, Raprecht. A variety of Laurel met with on the lower Amour is that called after Kamtchatka, Daphne Kamtchatica, Maximowicz.
Among the herbs of the Amour country, no fewer than 110 apecien are exclusively peculiar to this region; the rest are common to China, Japan, Kamtchatka, and even Americn, but more eppecially to
indicated that it might prove thy bearer. And these propheniez have been all too literally falflled.

As to the quality of this Pear there can hardly be two opinion. The Florist of 1875 , in giving a beautiful coloured wood-cat of Lacy Grieve Pear, summed it up in a sentence thus, "If we cannot claim for old England the parentage of many of our favourite Pears, we may at leat ansign to her some of the very bett in quality, and among these mut rank the abject of our present illuatration, of which excellent


Fig. 111.-rocy Grieve pear.
(Weight, 14 ozs. ; circumfereace, lengthwise, 15 inches; shorter girth, 11 inches.)

Tranbaikalia and Siberia. The whole flora of the Amour comprises 340 plants common to Earopean Rannia, whilat, with those of Tranebaikalia, it number: 527 varietien. J. St. Vincent Corcoran, Odessa. Sept. 14.

\section*{THE LUCY GRIEVE PEAR.}

Tris fine Pear, though it obtained a First-clans Certificate from the Royal Horticaltural Society on October 23, 1874, bas been comparatively little grown. It long thin Willow-like leeves, which anffice to diatinguish it from nearly all other Pearn,
amplen were aent to us last aatamn by Mr. Grieve of Culford."
Up to the present year thit fine variety hae neither been distinguished by free-growth or free-bearing; but aingularly enough 1895 has been a record year for this Pear. The anmple before me an I write, yru nu by Mr. Haghey, gardener to Thomas C. Porteous Oakna, E y., of Nowton Court, measares 15 inches in circumference lengthway 11 inches round at the widest part, and weighs 140 . Tais fruit, and there were several almost as large, in just at large again at that figured and described on p. 84 of The Floritt for 1875 , where the average weight is given at \(700_{0}\)

These fruite differ considerably from the type in other mattert, and are wo remarkable, that my wile has painted and forwarded a fac simile of the finest apecimen (6ig. 111). Ose of the pecular leaves is atill persistent from the end of the stalk, and is trae to its Willow-like character. Bat the Lacy Grieve Pear, like many others, is leas richly coloared this jear than uaual. However, it can hardly be said of the painting accompanying this note, that the colour is a deep lemon-yellow, though it is thinly and in some places thickly marked with ruset, and has a russet patch near the eye and the stalk. The flesh is alno moderately firm, fine grained, tender, and melting. very juicy, with a rich, luscions flavour, and a alight and agreeable dath of acidity auch an ia occasionally met with in the Glou Morcean. Since this Prer hat increased in mize, it become more like this fine old Pear at it beat, and possibly map have been raised from it. Bat the odour and the flavour of this Pear are more penetrating and agreeable. Dr. Hogg, our higheat authority on mach matter, calls Lacy Grieve a delicions Pear, having the textare and Hesh of Marie Louise-and aurely no higher praise can be given. The hiatory of this fine Praris thue pathetically written by the father of ite raiser, Mro Pater Grieve, 0 recently deceased :-
" It happened very long ago-
How long? we acarcely neem to know -
A fair young child, in joyous glee,
Piucked with her daring little band,
A ripe Pear from a tree.
And ate the mellow frait ahe choe
With all the zest which childbood knows;
Bat marvelled in it inmost core
Sismedark green pipe to afe;
And marvelied more to hear it told
That each imall pip oo plamp and bold
Might jet become a tree.
Then thoughtfully the pondered lomg,
How this thing could be so,
And lantly in a pot of earth
A ling eeed did now.
That aeed became a living plant,
And claimed her willing care,
While promises were kindly made
With friend its fruit to share.
In time the plant became a tree,
With foliage bright and fair;
The child, a merry little maid,
In fayour everywhere.
Affection cherianed for the tree,
Which cold and atorm could brave,
Bat long before it bore a fruit,
The maid was in her grave.
And when at lant it ripened froit,
They who full well do know,
Declare on Englana' fertile noil
No richer e'er did grow;
And ary that how that a fruit ochoice
It raiser'a name thould bear,
And be hereafter always known
As little Lacy's Pear."-P. G.
-D. T. F.

\section*{FLORISTS FLOWERS.}

\section*{PROPAGATION OF CHRYSANTHEMUMS.}

Early in the present month, and before the last of the plants which have borne large blooms are cut down, a beginning should be \(m\) ade in the propaga. tion of Chrysanthemame, for although the Chryannthercum season is short, a long period of time is required in caltivating the plant to perfection. Nowadays, when the large-flowered varieties are so numerous, eapecially those of the Japanewe section, and they are so highly thought of, poor blooms are not tolerated; and every gardener who grows these plant should make himelf acquainted with the best methode of cultare, so as to enable him to excel. A most important detail of culture is the propaga. tion of the plante.

It may be takea for granted that it inselen to hope for very fine blonsom if the atart be not early; no amount of forcing at any atage making ap for lout time. December is undoubtedly the best month in which to take cuttings, bat there is no one day which is better than another, and the gardener muts
be gaided by circumatancen-cutting of particular Farietien having to be taken when they are fit. There is also a difference in cattings, some being good, other bad. The beat hind of catting is that which springe up through the soil an inch or so distant from the atem, and is free from all traces of bude, fluwer-bud forming early at the point of a cutting, rendering it useless for propagation. A cattiag having a clean uninterrupted growth in ensential, without which the efforts of the cultivator will be in vain.
There are several method of striking cuttinga, rome gardeners preferring a cold frame, others a cool-houne from which front is simply excluded, but no artificial warmth employed, as this will cause the cattings to be unduly hastened. The cold frame answer very well when the weather is not very frosty, but it has the bad consequences that in period of aharp frosts there is a difficulty in affording air to the cuttings, to the loss of meny of them from damp. In a cool-houes capable of being warmed none of these drawbacks exist, and the rooting of the cutting goes on unhindered, and growth takes place without a check. The formation of a callus is hatened if the leaves are not allowed to flag, and there is no better method of prevening thin occurring than to place the cuttinge under handlights or in a mall frame, the pits atancing on coal-anhes, and an near to the glass as ponible, to prevent apindling. If one cutting be inserted in one amall pot, the repotting of the rooted p'ant is facilita' ed, and no check given. A eandy soil presed nomewhat firmly into the cetting-pots and cov red with a thin layer of and, in all that is necesaary for atriking the cuttings, the and hatening root-formation, an some of it is aure to be carried to the but:om of the hole when the catting is dibbled in; and the cuttinga of this plant root more readily in mand than soil. Having inserted the euttings, afford them a plenteous watering, and cover them with the handlight. Remove the top daily for about an hoar to disaipate moittare, and in the evening wipa the inaide of the top with a sponge. Water will not bs required before the cattings are rooted, but shculd the noil become dry it must be applied in afficient quantity to mointen the soil throughoat.

A period of from three to five weeka is required for the cuttings to becomewell-rooted, and when this has taken place the lighte should be tilted on one side, until the amount;of ventilation afforded in this manner is increased by degree till the cuttinge will bear exponare without their leares flagging. By this methed atocky growth and a thorough foundation are atsured. E. Molyneux.

\section*{CULTURE IN WESTERN AUStralia.}

It is pleanant to learn, through the agency of the Agent-General, that fruit and vegetable culture are making atiefactory progrens in the far-away auriferous portion of the globe which han so rapidly risen into fame all over the world. Orcharda and vineyard are gradually being developed in valleys where rivern or atreams of any capacity run, and in nome places, at in Perth, we are told that Grapes are sold at \(4 d\). per pound. Apricots, Peaches, and Melons also are gradually coming into market, and Strawberrien, Raspberrien, and Carrants are to be found here and there. Of coure, where the rainfall is limited in extent, caltivation is a ticklish job, bat then irrigation is made to asmert its beneficent power, and as population grow, so also does the extent of acreage under fruit and vegetable cultivation. Land is cheap enough, for it is atated that the cont of freehold in farms is something like 10s. per acre, the payment being extended over twenty years \(=6 d\), per nere per annum! And so, ponibly, is may come to pans that allavial gold may by-and-bye be found more eavily of acquirement than diluvial-as in Cali'oraia. By-the-way, it may be noted that frait tree and cuttings are nent from both New South Walen and South Australia. We are reminded by the Agent-Goneral that grame
needs are now placed on the free liat of imports, as well as garden seede. In the tariff-free list are to be found bulbs, fruit, and ornamental trees, acion and graftu, manuren of all kinde, plants, and Vine cuttinge. The following pay a duty of 5 per cent. ad valorem:-Agricultaral, horticultural, and viticultural implements and machinery (not garden rollers) ; wire netting and steel fencing wire, standards and staples.

The increase in the value of timber export is surely worthy of mention here. In 1893 the value of this export was \(£ 33,888\), last year this had increased to \(£ 74809\). It may not be generally known that the forest region of extra tropical Western Australia oc upies an area equal to the whole territory of Great Britain-the intratropic zone of forest is also enormoas, and there is many an indication that as time goes on more and more of the timber produced in these regions will find its why to the mother country. E. C.

\section*{The Week's Work.}

\section*{THE FLOWER GARDEN.}

By Bailey Waddg. Gardener, Birdsall Gardens, Fork.
the herbace ous borders.-The work of cutting down and clearing away the dead and decaying steco and foliage of perennial plants should now be fiainhed. Large plants of Delphiniame, Hemerocallip, He ianthar, Rac beckia, Irie, and Michatlmas Daisies, growing in old borders which are not going to bs repianted, ahould be taken up bodily with a spde, cattiog (ff and seplanting a good-nizad atrong ha althy clump cat from the outaide of the root-mase, affurding the \(t\) ansplanted portiona rotten manare and fres soil. These piecen will grow well and flower more tiafactorily than old undisturbed c'umps. Wher patting a border in order a! this season, place a short tous atske againat each plant which die completely cown. so that they may not bo \(t\) pr \(m_{p}\) ed upon; and when the work of cleaning and plating the borcern is fiaished, lightly prick over the surace affordiag a dressing of rotten manure and tesn lommyoil, and the aifted charred remaina of the refuse-beap, in all about 2 inches thick. Care should be taken that the top-dreasing is free from the seeds of weade. A few good indiapenable perennials consist of Alstromeria, in variety; Ancmone japoaica, and the white-flowered variety Honorine Joubrrt, and its double form ; Anthesicom liliago, Asters Amellus, g andifioras, Shortii, Nova Belga, and Nova Anglia; Campanalas peraicitlora, Carpatica ia b'ua and white varieties, grandia, latifolia, and many more; Doronicum: caucasicam, plantagineam excelsum, Harpur Crew, and Clusii ; Dalphiniams in great variety, Ery \(\operatorname{gin}\) mos, Ferala gigantea, Helianthay, or perennial Sanflowers, including the hows anfuati'olius; Inula glandulona, and I.g. granditora; Papaver nudicanle. P. orientale, Pæonien, Paloxes, Pyrethrum roseum, in great variety.

MI8CELLANEOUS MATTERA.-Now is the right time for examining the lawn-mower, repairing damages, aod generally cleaning and oiling the parts where there isfriction. The mower should be kept in a dry place. Flower-sticks, atakes, labela of all sorts and wiz 3 , fege for layeriag, thould be made; cattingbozes and plant-tabs well aired and then painted. The planting of deciduous treen and ehrubs may still be proceeded with, weather permitting; also the thinning-out and cutting-back of auch as are growing too thickly, and atakiog without any delay all atasdard trees which having bat small hold of the ground are likely to be injured by wind. The grans edginge to abrub beds may be trimmed, and the ail slightiy alirred with digging-forkp, taking care to bury the tree-leaves in the paces whare there are no roote to be injurad. Thorn and other deciduous hedges may be trimmed, keeping them broad at the bottom but na rowing towerde the top. If heavy nowfalls occur; relieve all choice sabject of the greater portion, before injury is done to them.

\section*{ILAKTE UNDER GLABS.}

\section*{By W. H. Swrre, Gardener. West Dean Park, Chichester.}

THE GREENHOUGE IN WINTER.-All hard-wooded plents much as Erican, Azalea indica, Rhododendrone, Boronias, Epacris, \&ce, will atand in need of close attention as regard their watering throughout the winter; and in regard to the temperature of the
greenhouse, a mall amount of artificial heat may be afforded, together with top and bottom rentilation in mild weather-a temperature of about \(55^{\circ}\) by day to \(50^{\circ}\) by night being anficient, the warmeth being allowed to fall \(5^{\circ}\) in very cold or windy weather, If any of the plants are infested with thripa, fumigute the greenhouse on two nights in acceasion with Richard'n Compound. Any necessary training ticking, \&c., may be proceeded with; and fer plante of Epacria, Erica hyemalis, and Boronia megaatigma may be placed in a alightly warmer house to bring them early into flower.

ADIANTUM CUNEATUM.-Where fronds of thin mpecies are in much request for catting, it is good practice to cut the fronds, ay of four to nix potiona, completely down, then allow them to get nomenhat dry at the roots, and place them in a temperatare of about \(70^{\circ}\) by day, and \(65^{\circ}\) by night, when they will soon push up new frondm, which as they grow, majbo gradually hardenod before cutting them as before. If plants of this species are treated in batches in this manner capital fronds may be obtained throughout the jear.

CHRYGANTHEMUM8. - The plants as fati a the flowers fade, and they lose their beanty, whould be cut down, for the Chrysanthemuma being generally gronped together, the suckers which will form tho sattinge get weak and drawn, and in some caus bleached in consequence; hence the need to roo move the top growth quickly. Place the atools, sa the plant are now called, in a light airy honse for a time, to allow the shoots to become firm before taking them, and as soon as that is apparent, recure the necenaary catting. After neatly trimming eack cutting, place it singly in a mall pot, in sandy loam and leat-noll; afford the cuttinga a good watering, and place them under a hand-light, or pot into a pit or house from which the frost is excluded. Gard againat damp by ventilating it in the morning, and by wiping the moisture off the glass daily if the hand light be used, and apply heas to keep out frot and disnipate excenive dampness. Two very pretty varicties for cat bloom are Jane and Yellow Jano and three very late one for Christmas decoration are Admiral Sir F. Symondn, Lady Canning, and Lads Lawrence.

LAGHENALIA TRICOLOR.-These bulbous plante, now in full growth, will require liberal aupplies of weak manure-water at the root when the pots basket: are found to be filled with roots. I find thas the plant flowers best when repotted in alternat years, or allowed to go for two y*ars. Keep the pold or baskets near to the glass, and turn them roond occationally, for the purpose of keeping the folisg evenly distribated all round the pots, \&c.

\section*{THE HABDY FRUIT GARDEN.}

By W. Porte Gardiner, Eighchre Cauthe, Newbury.
PROTECTING FIO TREES ON WALL8, ETCMeans should be devised, and material got in readinent, for covering Fig trees in cave of severe from setting in. Light aheep hardles neatly thatched with straw, and made long enough to reach the wop of the trees when placed in a leaning position, and tanding ont from the wall about 3 feet at the bottom, are a good form of protectora for out ofodoor trees, as beaides throwing off rain and nnomit they are eanily removed when necemary in rild weather, and with care will last for many yeanh Where, however, theare are not available, Spruce Pir branche or other evergreen trees may be omploped, and these, if properly applied, make a fairly eficied to protection. Straw bands are sometimes from tho onvelop the branchen which are taken off from in walls and bundled together, but this mend ito antidy, for which reamon I do not recommend io
prunina and training of TREES in aenerd -The proning and training should be cartuld be with dispatch, weakly or atunted trees shay of so cut-back severely, as thin slender growtas if pos formed frait-besring; and slmost invarisbly leall to atrong breaks. If the roots are in a healithy dition, the surface-soil thould be cleared away, a good drenting of material suitable for encor, yount root-action afforded. In the same manaer which treen that were planted last meanon, and hav failed to make a atiafactory itart, atarting poinh their branches cat back to the sath wi when in all probability a vigorons growth. resuit, and the tree greatiy benemary foinitis breen now being received from the nurnery
trees frequently arrive with vigorou growth on the upper part, whilat the lower part is either bere or furnished with only a few weak branches, which is a con aequence of the trees having been crowded in nursery plantations, and not getting enough light at the bottom. Such badly-farnished tree should be cat down to about 2 feet from the graft at planting-time; and from the strong growth which will reant a sufficient number moald be elected for the lower tier of branches, and for a stout leading ahoot, which may have the point stopped once daring the ammer. By acting in this manner, no serions loss is really incurred by what may appear to be too severe pruning, bat time will be saved, seoing that a handzome, vigorous tree is obtained sooner than would otherwise be the case. Lot the training of old and young trees quickly follow the praning, and in doing mo, closely examine the old fastenings, removing any that are tight, or which are not likely to last another season. The leather shreds introduced by Mr. Margatroyd, of Leeda, seem to be jast what is wanted for wall tree ; and, connidering thair probable darability, they are not too expensive. Young tree for horizontal training should not have the branches brought into position for the firt few years, but thould be trained at an acute angle, which will tend to the equal diatribution of the sap, and conduce to the health and vigour of the lower tiera, these bsing alter a time brought gradually into their proper position.

\section*{THE ORCHID HOUBR日,}

By W. H. White, Orchid Grower, Burford, Dorking.
HINTS ON WATERING.-As a rule, it is affording too much water at the root and too moist an atmoaphere, that are the chief causes of the deterioration in Orchids, and it is asfer to err, therefore, on the side of keeping the plants dry than on the wet side, eapecially if they are abjected to a reasonably low temperature. The ame distinction hould be observed when affording water to both tall and dwarf species of Epidendrum, as with Cattleyas. The plants of Chysis, Catasetum, Mormoder, Cgcnoches, Cgrtopodiums, and allied apecies should be kept comparatively dry whilst at rest. Warm or inter-mediate-growing Oacidiums, Guatemalan and Mexican Olontoglossume ahould be afforded water occanionally to maintain the plumpnens. Terete-leaved \(O\) chide require very little water whils at reat, just eaough being afforded to prevent shrivelling of any part. Small-growing apecies, as Promenæe, Rodriguezia, Paphinia, Comparettia, Coryanthes, Oacidiam palchellam, O. triquetram, Ionopsis, Barlingtonias, \&c., hould be carefully attended to, and water afforded them occaionally to keep them from perishing. The various pecies which occapy the coo!house, as Odontoglonsme, Masdevallias, Maxillarias, \&c., are growing almost at all times, and hould bs watered often enough to keep the compost moist.

DECIDUOUS SPECIES.-The plants of deciduous Calanthes, Thuniss, Cyrtopodiams, Catasetans, Mormodea, and Cycnochem, if properly matared, 'keep fresh-looking and plamp in the resting pariod without receiving any water. There are many species of Orchid in cultivation which bear a severe drying, and yet produce abandance of bloom, bat they do this generally for one or two seasons only, and then push out weak and prematare growth, gradually disappearing altogether. The object of beginners in Orchid calture should be to give the plants as good a rest as is posible, and see them anfely through the winter.

EVERAREEN 8PECIES. -Such evergreen epiphytal Orchid as Aërides, Saccolabiams, Raynchontyliu, Ronanthera, Stauropsie, Sarcochilue, Angrecums, and the tall-growing Vandas, do not require so long a season of rest an the deciduous species; still, the longer they are kep; in an inactive state, the stronger will be the new growth. Tase evergreen epecies hould never be allowed to get quite dry, and water must be afforded in mafficient quantity to prevent lons of foliage. The state of the aphagnum-moss, which has been growing laxuriantly, hould afford the caltivator an idea of the neede of the plant, and if it be allowed to assume a whitish-green colour before Water is given, it will nhow that the plant has been kept enfficiently dry. The whole of the mans of compoat ahould not then be atarated with water, bat the top-dreasiag of aphagnam-mons thould be merely sprinkled, so as to keep it alive. Phalenopsia Schilleriana, P. Aphrodite, P. intermedia Portei, and others, that are sending up their flower-mikes, thould receive mimilar treatment, Evergreen apecies,
auch as Cypripediums, Phaiue, Calanthes, Anecto chilus, \&c., require the shortent period of rest of any Orchids, and this should begin immediately the flowering season has pased, affording water paringly for a few weeks, when new growth will generally commence to be made.

DENDROBIUM8.-Dandrobiams, eapecially thoue of the deciduon or semi-deciduons apecies, require long rest, and no water at all at that seaton, ualess the peudo-bulbs shrivel, when water may be afforded in quantity afficient to rentore plumpnem. Dendrobiam thryailoram, D. densilorum, D. saavisaimum, D. chrymotoxam, \&5., which are evergreen, the nigrohirsute apecies, D. Lowii, D. cruentum, D. Draconi (ebarneum), \& co, and the cooler-growing varieties, D. infandibulum, D. Jemenianum, D cariniforam and ite variety, D. Wattianum, shoald be kept only lightly moist at the root when at reat.

CATTLEYA8 AND LAELIA8. - Ay regard Cattleyan and the tall-growing Leliap, experience teacher that at the so-called period of rest, the short pseudobulbed species, of which Cattleya citrina and Lalia majalim may be taken ae typer, require less moisture at the root then and at all other seasons, than the slender, tall-growing C. bicolor, L. harpophylla, \&cc. and those which have pseudo-balbs of an intermediate sizs, viz., C. Mendeli, C. Mossix, and C. Iabiata, nould bs treated accordingly. The object is to indace the formation of roots, bat not top-growth, and to do this, jast affisieut water to keep the pseudo-balbs and leaves from shrivelling much should be afforded the plants.

\section*{THE KITCHDN GARD쿄N}

By Johe Lambeat, Gardener, Powis Cauth, Weishpool.
DWARF KIONEY BEANB.-Saccentional owing should be made at regular intervala of fourteen to twenty-one dapa, according to the demand. The ail should be of a loamy antare, and rendered porous by asing road-grit, and, or leaf soil, in quantity to auit the kiad of loam. Some gardeners sow six or eight seeds in a number of mall 60's, sud transfer these before the roots are pot-boand, into 10 inch poss. A vinery sarted for forcing will bo a good plase for the seeds in the first atage. Susives saspended within \(1 \frac{1}{2}\) feet of the glass are well adapsed for French Buans. When the early batches of Brans have made considerable growth, sone wort of support from twign, or small stick and bast, becomes necesary. When the soil needs water, let enough ba afforded to reach every part, any atint in this matter cauning loss of bloom and poor growth. As A variety worth growing, Veitch's New Rinner French Bann should be tested especially at a later part of the winter, when hotwater pite may bs ased with good results in Bann cultare, althongh there is little doubt that red-apider will bo againat this varisty replacing the old dwarf ones for inside-work.
sprina cabbages. -Those Cabbegen which were plated as previously advised, having now become suady entablinhed plante, and therefore likely to withatand evere weather without lons, should be examined, and any gaps found in the lines filled up with ame of the bset plante remaining in the seed-beds; the plants freed from decaying leaves, the land from weede, and hoed rather hallow between the rown. Fiaslly, afford the plantstion a good dreming of fresh oot thrown broadcat over the plants ab well as the land, and then moald them up, chooning a day for this job when the arface is dry.

WORK IN GENERAL.-Many small matter will now require attention, unch as keeping up a supply of Lettuces for salad. If uader glass, so much the better, bat if these plants must remain out-of-doors protecting material ahould be at hand in case of hard frost. Thene may consist of mats thrown over hoops placed over the plants, or spare frame-lights, boards, \&cc. places remarks apply almo to Eadive. R jots of Dindelion and Chicory may be placed in the Mashroomhouse; and anccessional batches of Sakale should be put into heat, so as to keep up a regular supply. When mall quantities of Seakale are required, the roote may be placed in large flower-pots with leafmould over them; of course, keeping the light away from it entirely. Seakale should nut be hard forced, but brought on momewhe slowly, as it will be if the warmth does not exceed \(60^{\circ}\). Seakale roote intended to be forced this winter, may now be lifted, and the mall thonga for making aetected, barying these in soil antil time can be found on wet daya for making them. The crowns for forcing purposes ahould be laid in, in moint soil, litter being
thrown over them in time of frost. Asparague roots may be aimilarly lifted and laid-in, in eome readilyaccessible place. The old beda of Cabbages, if the plant were properly treated, will now be producing mall compact heads and spronta, tender and of good flavour. Thene Cabbage-beds should be cleared of decaying leaves, stripping thene off the tall atems, and gathering them by hand or raking them out of the bed, thu: affording air to circulate among the plants, and renderiag the plantation les obnoxions as regard odour. Yoang Cabbage plants pat out late in the nummer will now be farniehing good heads. Coleworts will be plentiful and good at thin seanom, wo that there will be no acarcity of Cabbages and Greens for the table. Brassele Sproats, the most highly prized of winter vegetables of the Cabbage tribe, thould be cleared of decsying leaver, \&z., buts carefully avoiding breaking the fresh ones. The bhort-stemmed atardg varietie are to be preferred, as they keep erect, are not so mach acted on by wind as the tall ones, which fall about a good deal on rich land, thas rendering the prout liable to have the soil aplashed on to them by the rain. Heaps of atable-dung, and litter, and fresh tree-leares, should be mixed and got in readiness for making hot-bode and renewiag the lininge to pite and framer. The cold pits and frames containing Parsley, Cauliflower, Lattuce, \&c., ahould have the lights removed daring dry mild weather.
mushroom beds. - Continue to collect and prepare manure for making new bede indoors ; and if a bed be made at intervale of three weeks, a good supply of Mushroome will be kept ap. Freah bed give the more delicate Mashrooms; atill, those bed which have been in bearing for aome time, will, if kept moist, and the house at the proper temperatare, continue to bear for a considerable length of time. The water applied to a Mubhroom-bed should not be of lese warmth than \(85^{\circ}\) to \(90^{\circ}\); and a bed if damped with the arringe occaricnally, and kept covered up with batt, mats or litter, will not require heavier wateringe, affording the being a mistaken practice. The covering of Mahroombed. out-of-doorn, when very wet, thould be removed and their place supplied with light dry materialt.

FRUITB UNDER GLABS

\section*{BJ Biorand Pareet Gardener, Goodhood Chichester,}

THE LATE VINERY. - Owing to the favourable season, late Graper fiaished well, and with care the bancher abould keep in good condition throughout the winter month. The buaches should be left on the Vines till the foliage has fallen in a natural was. At present all the principal leavea are atill perfect on oar Vines, bat they are changing to the uaual beautiful tint of decay, bas will not entirely drop for a fortnight. To remove these leave would not improve the Grapes in any way and there would be the danger of robbing the futare frait-bude of some acceasion of atrength It is, however, necessary that such ma-light as we have, and unimpeded circulation of air, thould be afforded, and to obtain these, the ahoots may be thortened to within two or three leaves of the bunch all lateral growths should be removed. Ventilate freely dariag bright weather, and apply fire-heat when the temperatare in the vinery is likely to fall below \(45^{\circ}\), or daring wet and foggy weather. The buacher of Grapes should be examined once a week, or oftener, and every berry showing the least aiga of decay, removed; for to allow one decaying berry to remain is to riak the lon of the entire banch, to quickly does decay spread. It is general for the roots of late Vines to have access to outside borders, and these require protecting from now and rain during the winter, which is best done by covering the border with mhattern, or failing these, with a thick layer of ripe bracken, letting the protecting materials remain till the Grapen are cut, but no longer, full exposare to the weather being then best for the Viner. These remarks apply to vinerie entirely given up to the Vines; but where beddiag plant and othera are stored, it in better to cut the bunchen of Graper at thil date with a good length of shoot attached, and keep them in bottlen of water in the uaual manner in a dry cool room.
gTrawberries im pots.- Piante placed in cold pite or frame:, aad afforded fall exponare, ahould have the frams-light pat over them, if falls of snow or aleet threaten; and it would bs well after this date to protect the plat from heary rains, for should severe frost follow theme, they would suffor more from the soil baing wet, but the lighte whoald be again removed on favourable occasione.

\section*{EDITORIAL NOTICES.}

\section*{Advartisements should be ment to the PUBLISEER.}

Local News.-Corresponients will greatly oblige by sending to the Editor carly intelligence of local events likely to be of interest to our readers, or of any matters which it is derirable to bring under the notice of horticulturists.
Letters for Pubilcation, - All communications intended for publication, as well as specimens and plants for naming, should be addressed to the Editor, 41, Wellington Street, Covent Garden, London. Communications should be WRITTEN OR ONE SIDE ONLX OF THE PAPER, sent as early in the week as possible, and duly signed by the writer. If desired, the signature will not be printed, but kept as a guarastee of good faith. The Editor does not undertake to pay for any contributions, or to return unused com munications or illustrations, unless by special arrangement.

APPOINTMENTS FOR THE ENSUING WEEK.

\section*{MEETINGS.}

IUESDAX, Dec. \(10\left\{\begin{array}{c}\text { Royal Horticultural } \\ \text { mittees, } \\ \text { minter, }\end{array}\right.\) Drill \(\begin{array}{c}\text { Society } \\ \text { Hall }\end{array}\) Wcm-

SALES.

CORRECTRD AVERAGE TEMPERATURE FOR TGE ENSUing Week, deduced frjm the obgervations OF FORTY-THREE YEARS, AT CHISWICK. \(-40^{\circ} .8\)

Last week we published thesecond
Fpping Forest. report of the Commissioners appointed by the City Corporation to investigate into certain charges as to excessive thining of the trees throughout the Forest generally. This report practically exonerates the Forest Conservators. In a large area of 5542 acres, tenanted largely by "gaunt pollard Hornbeams," which must be partly conserved and partly cleared for the young trees springing up, which must in time displace these said pollards, there is room for difference of opinion as how best to keep up the character of the wood as a " natural forest," in terms of the Act of 1878. There is not much occasion for wonderment at those lovers of trees and shrubs and under-growth of miscellaneous desoription, who live on the spot, protesting in the pablic prints. Unfortunately, the noisiest critics, however well-meaning, are often the least informed on the subject-matter in hand, as this Epping Forest question has fully illustrated. If the controversy were confined to the proper channels, where arborioulture is apprecisted and understood, the wild ideas of irresponsible individuals would never be published. As it is, the conservators and their superintendent must be greatly strengthened in their labours by the unanimous finding of the experts.

In a forest of this kind, which has not been a natural one in the general acceptation of the term, at least since the days of wholesale lopping began, it is desirable to have as many and as varied features as possible. There are by far too many pollarded Hornbeams throughout the whole of Loughton Manor, and we cordially endorse the recommendation of the Commissioners to have mach larger clearings than have hitherto been effected, so that eventually spear trees may grow up. It is not wisdom in such a large area to thin out so as to leave individual pollards; it is much better to have groups of these fantastio oripples, with the ondergrowths of Brambles, the Dog-rose, the "May," and the Blackthorn olambering roand and amongst them. It is delightfal to see how those Thorns proteot the seedling Oaks, Beechea, and Horn-
beams from the bite of oattle, and the progeny rearing its head above eye-level, will establish itself, and become one of the new features in time to come. Moreover, there are many hundred acres through whioh it is scarcely possible to crawl, so close are the tree-stems, and the oanopy of leaves shuts out completely the light of heaven from the ground, stifling any attempt at herbaceous life rearing its head.

In certain portions of Monkwood, about which there has, in time past, been a good deal of heated controversy, many of the Beech trees are magnificent specimens, and possibly, in time past the thinning has been a little severe, more especially as no underwood will come up under the dense shade of the Beech, and the clearings have not been bold enough to ensure a young crop of seedling trees in the intervals. About Theydon Manor, espeoially the high wood, Beech is the feature, and it ought to be maintained. There is a pleasing sensation, almost equal to walking over a Turkey carpet, to tread upon a thick layer of Beech leaves.

The ohiel seat of the Oaks is in Bury, or Hawkwood, and there has been a unanimous expression of opinion as to the conservation of these trees; indeed, the report says, "We attach great importance to retaining the character of this portion of the Forest as an Oak wood, and we would recommend that nothing further be done here beyond the gradual olearing-out of the pollard Hornbeams." If Oaks are to attain large dimensions, it is surely in this low-lying quarter. What has been cut out has improved the character of the remainder. It is exceedingly desirable to show boles of Oaks as well as tops to the forest wanderer; and after the Hornbeams have been seen to, and proper provision made for the upgrowth of young Oaks through the encircling shelter of the underwood, room should be made by judicious thinning, even of the Oaks themselves, for the growth of fine trees, and the formation of picturesque groups. They do much better in this wood than in the adjoining paddock, opposite the Royal Forest Hotel in Ching. ford Earl's Manor. The Oaks here seem to be as aged as any speoimens throughout the Forest, but they have neither attained bulk nor altitude, and seem to be in the downgoing period of their existence. Such fine examples of Oak pollards as are to be seen in Lord's Bushes, one of the offshoots in Hatch Manor, ought to be preserved. The underwood, especially the Hollies, is making fine headway, and the general vigour of herbaceous life at once shows the fertility of this spot.

The Biroh is making headway wherever the forest fires have stamped out tree-life. There are some charming young trees of this, whioh, with a beantiful pendent habit aud graceful foliation, well meriting the title of Lady of the Woods, have straight prominent silver-barked stems which lighten the sombre winter scenery. A few miscellaneous trees are springing up, such as Syoamore, and a stray Aspen or two, bat these are not encouraged. On the other hand, the Common Crab (Pyrus Malus), is encouraged and has not been pollarded; it is beautiful with its abundance of flowers in spring, and its fruits which generally are plentifal, and which the herd of deer eat with great avidity.

The picturesque undulating ground on the one side of the New Road, comprising many salient spots both in Loughton Manor and in Theydon Bois Manor, admits of making many vistas which would greatly relieve the eye of the visitor, shat up for miles, so to speak, within living walls of trees, and so doen thecorresponding groand on the other side of the New Road, particularly in some parts of Sewardstone Manor and Waltham Holy

Cross Manor, in order to open up the nice bit of pastoral scenery beyond the river Lea. These rides and beaten irregular paths over the forest generally lead to scenery which is shat ont from the eye and which is worth opening up, and thas enhanoing the forest effects. It has hitherto been dealt with in far too gingerly a way, no doubt, because of the ceaseless agitation of a fem busybodies. The best of the out-of-the-why features have arisen from conflagrations. Quan tities of the common Brake have sprong up, which, now one mass of russety-brow, is grand after the summer greenery; and then the masses of Furze, and Ling, and Heath, doing battle together wherever there is headroom and light are simply oharming-all the more so where there is breadth of space.

In such a large area as this, so near a great city, it would not be ont of place, neither would it be entrenching upon the reading of the con. ditions of transfer from the Crown to the pablic, to clear an area free from Hornbeam Pollards to form an arboretum, and introdace some of the deciduous trees and shrubs; and coniferous trees of other countries for general gratification and study Ther need not be distributed to alter the character of the forest, but a collection of them suitably arranged would form splendid object lessons for all who cared to proitit by them. Although the Act says that the natural aspect of the forest is to be preserved at all times as far as possible, it also says that the forest is to be "kept as a place of recreation and enjoyment" to all. This, in our opinion, would be a place of enjoyment to many, as it would enable them to see the arboreal wealth of othes countries, " no one daring to make them afraid."

Begonia incomparabilis \(\times\). -One of the mot remariable exhibite at the last meeting of the Rojul Horticaltural Society was a noble-looking winterflowering Bagonia (fig. 112, p. 681) exhibited andes this name by J. T. Bennett. Poï, Esq., of Cheshuato It originated in the south of Ireland, as we learn from its raiser, as a croas between Begonia polypetala and B. Froebeli. The foliage is very handame, the leaver being nearly a foot acrose, and covered with a velvely pabescence of a pretty pink hue when young. The inflorescence is nearly 2 feet in height, atanding well ap above the foliage, and bearn numerous acartet flower each about an inch in diameter. Before expansion, the flower-atalk is decarved, and the flattened flower-bada covered with dense whitith pubencence. We congratulate Mr. Poei on the acquitition of so remarkably fine a plant.

OUr Almanack.-Secretariee of Horticultarel Sccieties and othera, are earneatly requented to for ward immediately, the datee of Show Fixtures and of Meetinge of Botanical and Horticultural Societia of any kind for 1896, for intertion in the Almansth, to be pablished in our isnue for January 4.

The Royal horticultural Society. - TM next Frait and Floral meetings of the Rojal Hortio cultaral Society will be held on Tuenday, Dr cember 10, in the Drill Hall, Jame: Street, Victaris Street, Weatminster. The committees will met a asual at 12 o'clock. An election of new Fellow will take place at 3 PM .

National Rose Society, -At the Socitj' Cryatal Palace nhowe in 1896 and 1897, the follonits valuable prizes will be offered for Roses rainod, ars firat distributed by Mearm. A. Diceson \& Sass Newtownards, co. Down, Ireland. There will bo clans for amateura for in diatinct varieties, and another for nuraerymen for twelve varietief. In ena case the firat prize will be a handsome Silver Cap and \(£ 2\), aecond prize \(£ 2\), and the third prizs \(x\), Each Silver Cup must be won twice (not necens the two years in anccersion), before it becomisy property of the exhibitor. The above prite
presented by an amatear member of the Society, who wishes us to make these clases known now in order that intending exhibitore may be better prepared for them next jear.

Reduction of Rates for Small Parcels On
be sent to and delivered in the metropolis at rates for carriage varying from \(4 d\), for 20 lb , to 18 , for 60 lb . This is very greatly lem than any railway company has carried for before; and aince the Great Eastern covers the district where the depresaion has been most acate, the results that follow this departure will be noted with great iatereat. It will
hope to tee other companies follow in its course, and thus prove that the popalar in aleo the paying policy.

Societe Nationale d'Horticulture, Parib, -At the meeting of this society beld in Paris on Thuraday, November 28, M. Pextang, of Bruseels,


Fig. 112.-bigonia incomparabilis \(\times\) : flowers, scarlet. (bie p. 680)
opinions an to the causes of the prevailing deprention in the agricultaral counties, but there has been something llke unanimity apon one point-the quention of railway rates. The experiment began on Monday lat over the Great Eantern Railway ayatem is, therefore, of great interent, and makes it possible for the farmer and market-gardener to get into direct commanication with the consumer in London, Packagen of dairy and garden produce may now
now be ponible for the contumer to have his weekly parcel of batter, egge, poultry, fruit, and vegetables direct from the producer without the intervention of the middleman. One or two thing more seem to be needed, viz, a list of farmers, gardeners, and others, who are willing to apply castomers under the new arrangement, and a syatem of payment on delivery. Should thin venture turn ont remunerative to the Great Esatern Railway, we may
thowed some fine hybride of Cypripedium: C. Leynenianam (C. bellatulam \(\times\) barbatum Crowi), C. Senatear Montefiore (marmorophyllam \(\times\) Spicerianam),
C. Niobe (Fairieanam \(\times\) Spicerianam), and C. Chantini \(\times\) Sullieri Hyeanum, mplendid plant. From the ame exhibitor came grand plant of Ojontoglonanm (Miltonia) Leopoldianum, to which an award of a silver medal was made, Menarm Cappe et Fils showed Cypripedium monte-
num, which in nomething in the way of C. Sanderm, M. Don ahowed a magnificent Cymbidium Hookeri; and some good plantm came from M. Lasurur, among them a good form of Odontoglonsam cuspidatam. Mr. Bert exhibited several good Cattleyas; Meamin. Doval ex Firs, Verailles, preeented a plant of Miltonia vexillaria superba, and a fine lot of Cypripediam Charlenworthi.

Dinner to Employés at Ryecroft Nur-8ERY.-On Ssturday evening, 30th ult., some thirty of the staff at Mr. Jones' nursery, were entertsined by him at dinner, the latter being followed by a masical entertainment, in which both amateur and profenional artistes took part.

Royal horticultural Society of Aber. DEEN.-The annual general meeting of the member of thia society was held it the Masic Hall Baildings, Aberdeen, on Saturday, the 30th ult. Mr. D. M. Smitr occapied the chair, and there was a capital attendance. The aciety held one exhibition during the season in the Dathie Park, which proved, from a horticultaral point of view, most succensful. The entries numbered 2021, thin total being surpanaed by only one society in Scotland. Mr. J. Munro, nursoryman, Barnside, in criticising the report, thought they should look more to horticaltaral mattere, and leave musical and "fire-eating" matters to take care of themelves.

The Gardens in Lincoln's Inn Fields.The London County Council ara having the grounde of Lincoln's In Field thoroughly drained, the arrangements in that resect having bsen of the most primitive and inadequate character. The pathe are being levelled and gravelled, and later on the bedu and shrubberie will he overhauled, and in many inatances replanted. The gardens have proved a great boon to the poorer inhabitante of the adjoining thickiy-populated dintricte. There is a fine groap of Planes in the centre, and little or nothing needs to be done in the way of altering the plan.
"The Journal of Botany."-The ateady increase in the namber of papers which have been nent to the Journal of Botamy for pablication during the last year has forced upon the editor (Mr. James Britten) the conaideration of means whereby to meet the demands upon its space. This increas is gratifying evidence that the Journal in recognized as a suitable mediam of communication with the scientific world. The financial position of the Journal does not, however, warrant any additional expenditure. For the last few years it has not, as was at one time the case, involved any lows, but it does little-in some years nothing-more than pay its way. After discussing the position with various botanista, it is now proposed to enlarge the Journal by giving an extra sixteen pagea monthly, and to raise the price of each number to \(18,8 d\). , and of the annual subacription to 16 s. This mean that the contents will be increased by one-half, while the charge will be raised by one-third, so that anbacribers will be the gainers by the change. At times, of course, it may be desirable to aubatitute one or more plates for the additional pagee, but the general reault of the change will be that each number will contain forty-eight pagen, instead of thirty-two at at present. It is saggested that the list of subucribers might easily be enlarged, if thone who already aub. acribe would induce their friend to do so. There are many who, for the sake of encoaraging science, would be willing to add the Journal to their list of periodicals, or who would present it to some reference library. The work of editing the Journal for aixteen year: has been conaiderable, and fanncially unremanerative, and this gives the Editor a claim to the support of thome interented in any branch of botany.

A French National Chrybanthemum Society.-A now Society has been formed in France on the aame lines as our own National Societp. The subseription is fixed at 5 franes, and the Secretary is M. Pnurfy Rivonam, 16, Rae d'Algèrie, Lyon,

Journal of the Royal horticultural SOCIETY. - With commendable promptitade, another number of the Journal of the society (vol. xix, part 2) has appeared. It contains, among other things, papers on Fruit Culture in France, by M. C. Baltet ; a full account of the Crystal Palace Fruit Show, and the two Priza Ensay on the Commercial Aspect of Hardy Frait Growing, by Mr. Lewis Castle and by Mr. S. T. Wriant reapectively.

Honours to Horticulturiste. - On the occaaion of the Chryanthemam exhibition in Paria, M. Mabtinet, the editor of the Jardin, was made Officier d'académie in acknowledgment of hia mervices to the exhibition of French fruit in St. Peternburgh. M. Ernest Bercmann, on the same occaaion, wan made Officier du mérite agricole. The Emperor of Russia has conferred on M. Max Corno the grand croas of the order of Stanislan. M. MARtiner is made commander of the same order. M. H. L. de Vilmorin is made a Chevalier of the Order of St. Anne. These last appointmente have been made in connection with the great frait exhibition at St. Peteraburg in 1894.

Frozen Flowers from Australia.-It is atated in the Westminster Gazette of November 28, that a fine collection of blue and white Water Lilies (Nymphæa gigantea) has been sent by a leading floriat in Syduey, N.S.W., through Sir Sadl Samurl, the Agent-General, for presentation to her Majesty the Quern. The Lilies were frozen in ice, and received as long ago as August last by the Colonial Consigament and Ditribating Company, Limited, being atored at Nelson's Wharf, until Wedneaday, Nuvamber 27, when they were delivered at Windsor. In pite of the length of time, the Aowern were in perfect condition, and, scen through the transparent ice, were very attractive.

Vegetable Fibreb - Dr. Mormis' lectures on this aubject before the Sxciety of Arts have now been repablished in a complete form, and may ba had from the Society of Arts, Adelphi, London. They prement within mall compasi a readable account of the natare, properties, and mource of vegetable fibre generally. Oa looking through this excellent nummary, the reader will be atruck with the small number of apecies which have up to the present time been atilised. Tais is the more astonishing, as the great majority of plant yield "fibre" in some form or another. Is there not here an opportanity for our botanical stations to institute, on a far larger acale than they have hitherto done, comparative trials of various fibre-producing plants, in order to ancertain which are of the mont comonercial importance. In the mean time we commend the present pablication to the notice of all concerned.

Mr. Barron's Retirement. - With the last meeting of the Fruit Committee for the year, which takes place on Tuesday, December 10, at the Drill Hall, will be terminated Mr. A. F. Barron's long connection with that body as secretary That there will be considerable attendance of member is probable, an wach in unally the case on the last meeting of the year; but in view of thia leave-taking, the attendance at this particular committee will doubtlens be unusually large. The occasion is a fitting one for some formal proposition from the members, which should be recorded on the minute of the committee' proceeding, and no doubt auch proponition will be forthcoming. In the meantme, we have great satiafaction in announcing that at the last meeting of the Council of the Royal Horticaltaral Society it way resolved to elect Mr. Barrox at an Honorary Life Fellow of the Society. Mr. Barron was also elected to aerve on the Frait Committee for the ensuing year.

Colour in Butterflies. - The acalea on the wings of the Pieridw, to which the Cabbage butterflies belong, are nown by Mr. Gowland Hopiniva, of Gay's Honpital, to contain uric acid, to which oubstance, in fact, they owe their opaque milkywhiteness. The acales of allied yellow insecte alao
contain a anbstance nimilar to uric acid. Pigments of this character are not found in other batterfien, so that when the Pierid "mimics" an ineect belonging to another group, the pigment in the two cases may easily be diatingaished chemically. Thene carious observations show that there in a close ansociation between pigement of a decorative charactar and sabatances of an excretory natare.

Rosarian's Year-Book. - The Right Hon, Lord Penzance will, we underatand, contributa a paper to the forthcoming isune of the Rosarizn's Pearo Book on the "Hybridisation of Roses," with apecial reference to his expariments on the Sweet Briar,

Propored Memorial to the Late Dr. Woodman. - We learn that Mr. E. J. Jarmar, aed merchant, Cabrd, Somersetshire, has kiadiy andertaken the daties of Hon. Treasurer to the Fand which han been atarted, with W. Nappre, 489 , Kiug's Road, Chelsea, S.W., as Hon. Secretary. With mach workers, the work cannots bat be anccesafully carried out, and it is hoped that after erecting the anggented monucaent, a mubstantial balance will be left for the benefit of Mra. Woodman.

Christmas Numbers. - The Chriatmas number of the English Illustrated Magazine (illuatrated London Neves Office, 198, Strand), contaian many talen interesting to read and appropriste to the forthcoming season. Iule Tide (Cassell \& Co., La Balle Stuvage Yard, E.C.), is verg good this year, and the coloured plate, entitled "Prisonern of War," is a refrenhing change from the too plentifal pictares of kittens, pappies, and maidens usaally seen at thit season.

Mr. Buysman. - We have more than once taken occasion to praise the almirably dried apacimens of plante, chiety of economic pecies, prepared by Mp Bugaman, of Middelbarg. It is with regret, therefore, that we hear that the sight of this able preparer is seriously threatened, ia consequence of ovar. application, and that aome of his friends are deairom of giving him some assiatance in the ahape of clerical help in his work. Taose who feel disposed to contribate in thi laudable object, are requested to commuaicate direct to Mr. Borsman, Middelburg, Holland. It is eapeciaily and that a breakdon hould occur, just when the initial difficalties of his enterprive aeemed to have been fairly overcome.

Potato Scab.-Potato ecab is caused by tho attack of a minute vegetable paranite, at was fint demonatrated at the Pardae Agricultaral Station. It chiefly attacka the crop throagh infected aod material. The seed material may be dicinfected by immertion in a bath of corrosive sublimate. At corronive aublimate in a deadly poison* when amellowed by man or beatt, great care mat be exercied in handling ito The corrosive sublimate solution hould be of the streagth of one pro mille ( 20 on to 15 gall. of water). The bath should be about all hour and a half long, although ame variation in time is immaterial. Catting and planting is done as noual. The result of the treasment in a crop eneno tially free from sarface blemishes, and of greater market value. Sometimen a considerable ineresm in yield results from the treatment. The mothod if easily and cheaply applied, and in worthy of extended trial. (Abstract of paper pablished by J. C. Aergive in Bulletin Purdue Agricultural Experimsut Station Auguat, 1895.)
"Megny's Chinebe Mibcellany."-Wo hafl received the first number of this publication, pubs lished at Shanghai, and destined, as it appears, to bo an encyclopsdia of things in general concernias Chins and the Chinese. "The author, haring lirod more than thirty yeare in various parte of Chien one-half of the time entirely isolated from foreigners, speaking nothing but Chinese, in consialy commanication with the highert officiale, holding

An antidote that is probably as good as can bo had rasiay at hand is the white of egr. But no remedy can be of unlese administered without delay.
nocial intercourae with all clanem of the people, travelling extenaively by land and water throughout the whole of the eighteen province of China proper, note-book in band, and keeping a journal of all his movement and experiences, has acquired an intimate knowledge of the manners and customs of this peculiar people, and accumulated a vant amount of the most useful and most interesting information, which will now for the first time be placed before English-reading people in the handieat form imaginable, and on the most reasonable terms." The first number, so far at goes, certainly juntifies the author's claims, but it aleo now that the wervices of a competent editor are needed to digent, condense, arrange, and in some places to correct the vat mans

The Chinese name for this plant, it appears, is Anxion Desire, in reference to "the sorrow of nome widow who wept under one of the treen [climbing thrub, rather] and died of her grief." Acacia concinna, the Mimona aponaria of Roxburgh, is mentioned on account of ite poda, which contain a detergent principle which enables them to be ued in place of soap. A. nemu is indicated a a menitive plant, the bark of which is used for medicinal parposes.

The Royal Gardeners' Orphan Fund.-A meting of the executive committee of the above took place at the Hotel Windsor on the 29th ult., Mr. Wifilar Marshall in the chair. The following


Fig. 113, chrysanthamum m. chenon de lechí.
colours: rost buff upon a yellow around, and the tips of the florets, yellow.
of varied information collected by the author. A clasaified index at the end of the jear will also be requinite. Mr. Megny noter the aingular accuracy of the narrative of Marco Pono, in whose tracke he has in many cane travelled. The items of information presented to us in this first number are so numerous and so varied, that we have a difficulty in making any selection suitable for our readers, bat in justification of our remark as to the need of an editor, we may mention that the seeds of Abrus precatorius are described as "berrien." This atatement is more than a mere technical error, an it leads to a atatement that Tatarinof fell "into the popalar error, and confound this "berry" with a genuine apecien of Bean perfectly din inct." The need., which are perfectly well deacribed by our author, are in reality very clonely allied to Beans, and are contained like them in a pod or legame.
apecial receipt were announced: Rugby Chryannthemam Society, asle of flowers, \(£ 528,6 d_{0} ; \mathrm{Mr}\). F. Miller, Margate, £1 10s.; Mr. G. Harvey, Stanton in Peak, £1 5s.; Mr. Malcolm Dann, \(£ 1\) 1s.; Mr. J. Miller, Ruxley Lodge, 10s; Young Gardeners at Raxley Lodge, 10s.; Mr. H. A. Barberry, Birmingham, 15s.; and Mr. J. Lemmon, Elm House, Chichester, 5s. From boxes, the following ams were announced:--Per Mr. T. Tarner, Royal Horticaltaral Society's Gardene, Chiswick, 16s. 1d.; Mr. G. T. Cole, Charters', Accot, 16s.; Mr. J. McLeod, Rochampton, 15s.; Mr. R. Scott, Bradford, 14s. \(2 d\); Chielehurst Gardeners' Asmociation, per Mr. J.Lyne, 10s ; Mr. A.D. Christie, Ragley, Alcester, 58, ; Croydon Chrymanthemum Society, per Mr, W. B. Beckett, 21s, from boxet for viewing the collection of Chryanthemums at The Grange, Wallington, per Mr, G. W. Cammine,
£2 10s. It wat resolved that the annual meeting and election of orphans to the Fund hould take place on Friday, Febraary 21 next. The naual vote of thank was pased to the chairman for preniding.

Importation of Horee-radigh.-Of all the garden and farm producte annecenarily imported into thi country, there is none to our mind less warranled than that of Horae-radiah, which comes into Covent Garden in buge barreln from Holland and Germany. The aubject was incidentally referred to at the Drill Hall, on Tuesday week last, when Mr. Masos was apeaking about Asparagus culture. That gentleman has grown Apparaga and Horte-radish for market during many yeara, but has always to combat this extraordinary prejadice in favour of Horte-radish from Holland. Is the imported root of better quality? Not a bit of it! The roote are admittediy larger, but they are correapondingly lese effective, and Mr. Mason declared he could eat a quarter of a pound of it withoutita causing him to weep! Eoglish root are maller and very much better in quality, yet these may often be seen lying in Covent Garden lacking a purchaser, for the very reason that they are Englinh. Surely the ways of the British public are incomprehensible. Can the moral ba this: that British growers, if they desire the confidence of their countrymen, mat give them Horneradish that will not canse them to weep?

The Surveyore' ingtitution. - The next ordinary general meeting will be held on Monday, December 9. when a paper will be read by Mr, F. Punchard (Fellow), entitled "The Working of the Agricultural Holding Act, 1883." The chair will be taken at eight o'clock.

Publications Received.-From the New York Experiment Station, Builetin, No. 91, for Auguat, 1895, including papers on "A New Strawberry; Strawberrien, Rapberries. Blackberiee, and Dew-berries."-Bulletin of the Botanical Department, Jamaica, vol. ii., Part 9, the content include paper upon "Esential Oil of Orange, Caltivation of Cocon, Cultivation of the Coco-nut, Chemical Selection of Canez, and Synoptical List of Ferns."-Report on Government Botanical Gardens, Saharanpur and Mussooree, for year ending March 31, 1895. Satisfactory in spite of an uofavourable season as regards weather. -Landbouwkundig Tijdschrift (agricultural journal), onder redactie par Prof. Dr. J. Ritzoma Boa, Mr. A. D. Van Aasendelft de Coningh, Prof. Dr. Adolf Mayer en Dr. A. M. Prins, Afl. 6, Te Grovingen Bij, J. B. Woltert.-The Quiver, for November. Firat part of a new volume, and quite up to the usual standard of excellence.-Nature Notes, for November, contains as uaul many jottinge interesting to lovera of natural history.

\section*{PLANT PORTRAITS.}
adiantum lineatum, mustration Forticule, October 30 Segments of fronds broad, cuneate lanceolate undulate, dark green, veined with white.
Arethus bulbosa, Meehans' Monthiy, August.
Begonia Falcreana, Ilustration Horticole, October 15. Leaves obbque deeply palcoately lobed; lobas lanceolate. dark green, mottled with lighter green spots.
Coreopsis grandiflorl, Meehans' Monthiv, November.
Cimbinium eburieo-Lowianum, Garden, October 5 . Cypripedium Gebtrude Hollinaton (chlolabe \(>\) bellatilum). Moniteur d'Hot ticuliure. Cetober 10 .
Ligodium Palmatum, Meehans' Monthy, October.
PEar andrk Desportes, Bulletin d'Arboriculture, October. Recommended by M. Burvenich as the earlient of Pears, ripening in the midale of July.
ZGHODODEDRON VIRGATUM, HOOL, f., Wisnar Illuct. Gartom Zeitung, \(\mathbf{t}_{.}\)iii., 18 ib.
Sollya heterophylla, Revue de 1 Horticwiture Eelge,
Norember November.
8yringa Emod, Wall., Yar. nosra, Cornu, Gatten Flord, p. \(500,1825\).

Triohostemma dichotoma, Meshans' Monthly, Septemher.

\section*{CHRYSANTHEMUM M. CHENON \\ DE LECHE.}

Tas in one of the beat and mont attractive of the newer varieties of the Chryanthemum. In refined character will make it popular with everyone desirous of encouraging such a clan of bloom to the excluaion of extra large flowers which combine with them a
certain amount of roughness. A pare reflezed Japanese variety, the colour is a beautiful rosy-buff apon a yellow ground, the tip of the forets yellow, and the reverse of the anme colour. There is a distinct and attractive appearance about the flower not eaty to dercribe. The floreta are very long, regular, and of average width. Mr. W. Wells, of Earlswood Narserie, Redhill, to whom we are indebted for the photograph, informs us that the plant is an excellent doer, and grow only about 4 feet high. The bloom represented by fig. 113, is one of two that were produced by a plant in Mr. Welle' nursery that only arrived from the raiser (E. Calvat) in March last. Oae of these blooms was included in Mr. Wells' collection of forty-eight at the Aquarium, and the other one was hown in competition at the Hall exhibition. The larger bloom measured exactly 8 inches across, and was about \(5 \frac{1}{\text { I }}\) inches in depth. The variety has been certificated during the present season by the National Chryeanthemam Society, and an Award of Merit has been conferred apon it by the Royal Horticultural Society. It may be usefal to add that the variety does not succeed upon the "first crown" bud, and in in this particular dissimilar to the excellent Boule d'Or ' 95 .

\section*{Home Oorbespondenoe.}

DAPHNE INDICA RUBRA AT BERKELEY CABTLE -Amongat the many features of intereat at Berkeley Catte is a perfect hedge of Daphnes, growing in ons of the hoases, planted out in a border. I consider them wonderfal examples of caltivation, being the picture of healthy development, well farnished with branches down to the ground, with many huadred of trusses of sweet-acented flowers, diapensing the fragrance around. These plants average 5 feet to 7 feet in height and breadth, and as much through Mr. Shore informed me that the largent were atruck from cattinge foarteen years ago; all of them are on their own roots (not grafted). He keeps propsgating them in this way, and the plants of less than one year old are 1 foot in height, proving that on its own roote, when properly grown, Daphne indica rubra is a valuable plant for winter flowering. At Berkeley the plant is freer than any grafted plant I have ever observed. The Cgclamens, Primulas, Carnations, and Chrysanthemums are very attractive just now, all being well done, Rusticus.

CRABS AND APPLEB IN PLEASURE GROUNDS.Your correspondent "D. T. F." does well to recommond the ane of these plante in pleasure grounds, and more eapecially for arches. I can imagine that the effect would be very charming. I think it a great pity that Crabs and Apples are not planted more extenaively in pleasare gardens; for if the trees were placed in suitable positions. the effect in the spring tims would be very gratifying, and in the autumn a mource of pleasure, especially where varistien fit for dessert would, \&c., also planted were used. We have this sutuma planted several good varietien of dessert Apples to form a background to beds of Lilac and Labarnum in the grounde here, but I should not advise Crabs for this purpone, especially Pgras Malan baceata on account of its habit to run upwards. This variety is more auitable for woodland acenes or any place where ite slender form would correspond with the immediate scenery. George Burrows, Berwick Gardens, Shrewsbury.

NATIONAL CHRYBANTHEMUM 8OCIETY. - IQ view of the Jabilee exhibition of thi mociety next year, and whilat there is ample time for the consideration of the matter, is it not a very pertinent question to ask, Whether a mach more appropriate place cannot be found than the present quarters of the society for ite annual diaplay? It would be difficalt to find a more anauitable spot for the effective diaplay of the flower, anociated as it is with arrroandinge that (to take a very charitable view) are not conducive to the proper enjoyment and critical examiation of the exbibite. The arrangemente (perhaps in some respects unavoidable) were thit meaton bad enough in all concience. What will they be next year with an overflow exhibition, necesaarily incident on a greatly angmented schedule of prizes? I know I shall be met at the outset by
rejoinder, that the Aquarium is a central not, and rejat, from the board of management, the National Chryanthemam Society is treated with a liberality in respect of the all-important financial aspect of the case, that would not be possible elsewhere. Bat, arely, if the National Chryannthemum Society can raise floon for prizes (is sach a sum really needed?) next year as it proposes to do, it can, amongst its numerous-and, in many respecta, wealthyaupportera, raise sufficient for the hire of a auitable hall in a central spot, minus the objectionable curroundinge attaching to its present place of exhibition. I believe that, with a really earnest and determined effort to bring about this mach-to-bedeaired state of affairs, success would crown such endeavourn, the jabiles exhibition would be a red-letter-day in it career, and the National Chryan-letter-day in its career, and themam Society woald secare practical support from anot nimportant namber who at present hold aloof from it by reason of present asiociations. What ay your numerous readers who are interested in the cultivation and populariation of the Golden Flower? and that it shoald have a worthy place of exhibition. Mum.

CARYOPTERI8 MABTACANTHU8.-In the namber or October 26, 1895, "W. W.," apropos of Caryopteria Mastacanthus, writes that probably that shrub will require to be well sheltered daring the winter, ave in any privileged parts of Eagland. In the environs of Paris the plant renists well in pleine terre daring the winter planted a little deeply. I have seen in the late apring some plants of that ahrub that had been forgotten in a border at the preceding autumn cime up strongly. The stems had quite decaved, but the roots had no:s suffored, notwithtanding a co'd in Ghent of \(17^{\circ}\) Réaumar below zero Consequently I consider the plant quite hardy The piant is an excellent bee plant. Daring the esson of flowering from Jaly to the middle of O tober, I hava seen every day thousands of honeybees visit a group of Caryopteris Mastacanthus, and they gave a continual movement to the planta by their going to and fro. It is also an elegant plant for the ornament of the gardens, on account of it long period of flowering. V.A.C., Ledeburg, Ghent.
chaysanthemum aolden weddina. - My experienca with this variety during the present eason enables me to endorse the remarks made respecting it by Mr.W.H. Diversin your lastisane. Like many other growers, uotil this meason I failed to grow it atiofactorily, and felt inclined to discard it altogether ; bat by adopting a difforent course of treatment, I have thia year produced some excellent blooms, measuring 8 inches across by 5 deep. Tae colour of this variety is very attractive, and for decorative purposer one of the best. Cattings were inserted singly in thamb-pots on Dacember 15 last, cool treatment being given from the commencement. The plants were topped daring the aecond week in April, two breaks only being reserved, crown bade being taken. Compont used in potting way of a light rich nature, very little artificial manare being given daring the season. The final shift was to 8-inch pots. H. Warren, Aston Clinton Gardens.

A HEAVY CROP OF POTATOS.-I have been canning the columnt of the Gardeners' Chronicle daring the past few weeks to find the weight of a Potato crop from a given area, which might enable me to form a comparison with the crop grown at this place, the varieties are Satton's Satiafaction and Baraty of Hebron, planted side by side, and each occupying exxctly 2 quare rods of ground. Tae mets of Satton's Satisfaction were planted 18 inches apart, and the rows ware 4 feet apart, and the prodace weighed 6 c 础. 7 lb ., equal to 24 toas 5 cwt . per acre. The tabers were large and of good shape, many of them weighing \(2 \mathrm{lb}, 4 \mathrm{oz}\) each. Baaty of Hebron, planted on the same day, at 12 inches apart, and the rown 3 feet, yielded \(4 \frac{3}{4}\) cwta, or 19 tons per acre. The tubers are of good mape, but not so large as tho of Satiafaction, and the heavient taber weighed \(1 \mathrm{lb}, 10 \mathrm{oz}\). Ours is not considered a good district for the Potato, and this crop is looked apon as exceptional here, although in more favoured localitie it may not bs uncommon. I may add, that these Potatos were planted to illustrate in a small way the advantage gained by giving the plant plenty of apace. T. Leith, Herriard Park, Basingstoke, Hants.

COX's ORANGE PIPPIN.-I have four ntandard trees of this popular Apple, planted eighteen years ago, which this messon produced twenty-weven bashels. They sold for 4s. 6d. per bushel, at they were neither
arge nor well-coloured, and I was ansured that plenty such could be bought for \(3 s, 6 d\). The nett retarna for mine came to \(£ 1\) per tree, bat previously 56 . per tree would be about the amount. The fact is, commoner sorte have hitherto paid best. There is an old tree in my orchard which cropa regalarly in alternate yeara, and which has produced Apples to the value of \(£ 5\) in \({ }^{\prime}\) one season. I believe they are Curltails, a sort no oise would plant now-an extra crop should be alwas rewarded with an extra allowance of manare. Mid Kent.
cyclamen culture.-Cyclamens, under ordio nary good treatment, that is, with due repurd to shading, the supply of moisture to the planta orev. head during hot and drying days with a fine apraying-can, a free circulation of air, the avoidnce of cold draughts, with abundance of water at the rootu, aided by the favourable weather we had in the autamn, have grown into aplendid specimen, The growth, which is always free daring Augat and September, was this season quite exceptional, and not a few of the plants have required shifting from 5 inch into 7 -inch flower-potn. Oar plants have profited by an application or two of weak soot-water, and of the following miztare, viz., two parts Peravian gaano, one part nitrate of potash, one part salphate of ammoaia, and three parts mineral saperphosphate. Tae above ingrediante should bs passed through a very fiae-meibid ieve, in order to get them well mixed tngether Half an ounce of this mixture pat into 1 gallon of water will be anfficiently atrong, and it mas e afforded the plants once a week. It may aloo be applied as a top-dressing at the rate of 1 ck , to ten plants atanding in 5 inch flower-pota; bat the former is the safer method of aning it. The Cyclamen has many valuable properties over and bove the aversge of florist's flowers; it is fres. blooming, has a compact habit of growth, hando comely-marked leaves-which in themselves ought 0 recommend it for houre and table decoration - and the flowering-plant lasts 10 long in the itting room, prodrcing, at it will, a accemios of blcom from Ostober to Nuvember-enough good qualities to pat it in the foremost rank, It was feared at one time, that as the flwern ncreased in size, there would be a decrease is the number of them; but the large-flowering varieties bloom just as profusely at the scall ones, and many of the bloom: have from five to nine petale, and these from \(1 \frac{1}{3}\) to 2 inches in length, and 1 inch broad, with culour from very deep thades of purple ad crimson, rosa and pink, to the pure white A. \(E\) N. George, The Vineries, Milton.
rosa rugosa for game covert. - If not "H. J. C.," of Grimston, Tadcaster, alyly "poking No doabt an acre or two of this beantifol flowering plant or shrab would have a fine effect, eapecislly when in bloom, and the growth had attained nome 5 to 6 feet in height, and would also provide ahelear for some kinds of game; but how about the doge and portamen that had to drive and get them out fa have a vivid recollection of pabing through fa 2b \(^{\circ}\) bushes when rabbit-shooting on the south Domil, and also remember the difficulty of getting the dogi to enter at all where the farze was thick; and the half-blinded atate of some of them from the thom driven into their flesh and eyes as they daund after their game. But this, I take it, would b arpassed by the thorny barrier of Rona rugoss; s least, I think and if such covert was at all high and dense, I for one would forego the pleasure of abootin. among it, and not risk my dogs' eyes by tarning in any that I cared for. Lat any one try a fow houn in a bramble covert, and then possibly they w like get a small idea of what Rons rugona would bo -when it was Rose rugosa, and nothing bat bow with good effect, and Berberis aquifolia emplo food for the birds; but the morries beantifal covert, to m thinking, is that made by the Rhododendron. Som forty years ago, I a one of about 4 acres at Lord Darby's in Knowaley Park. Tae iheltar Whal gove and dry under the rich dark green-coloured colow and then the wesith of bloom in vared forgotel was a sight once seen could never be forgotest It was lovely; the phessants cowered benes and the rabbit cattled here andail, sll adde now and then a moorten or a landraild have been ife t) the scene, but even this wo few "roostiv" trees," auch as Aties or Pinev. For my owa parth do not think any thrab eo fall of thorns Row Rose rugos, or even our own benatiful Dog Raw

S weet Briar, does for, or would make a good edjoyable covert, by reason of their protective tborns, which are both numerous and tharp. Harrison Weir.
- In reaponse to your correspondent's onquiries regarding the above plant as a suitable ence gained here with it in not satiufactory, the rabbits eating the bark off to the height of about one foot, the branches thereby dving off to the ground level. They seem to prefer Laurel, Berberis, and Holly, but Rosa rugose is not exempt from their attacks. If "H. J. C." will kindly give the names of few plants he has found to be rabbitnuonf, II should be greatly obliged. L. Pope, Carlton Hall.

I fear "H. J. C." will bs disappointed with the above anmed Rosa for game cuvert. Three jears ago I planted everal hundrede, thinking it would bs proof againat the ravages of that troublesome little creature the rabbit, but no sooner had they been planted than the tipa of the shoot were bitten off, and they have kept nibbling at them ever since, until only a few miserable tumps remain. A bed planted two jears ago and protected with wire-netting, is now over 3 feet high. It commenced flowering early in June, and continued flowering until the frat of the heps were quite red, and was admired bv many. \(G\). Duncan, The Gardens, Letham Grange, Arbroath.

A CODE OF JUDGING. - If Mr. Patteraon will wait but a week or two, he will have an opportanity of obtaining a copy of the code of jadging which the comoittee appointed by the Cunacil of the Royal Horticultural Society for the purpose have prapared, and which in now in the printer's hands. Whether when published it may bo found capsble of satisfying all requiremente, remains to be seen; but the committee have devoted many aittings and much time and labour to ite preparation. Presumsbly, it will bo insued in pamphlet form, and at a cheap rate. I trast everyone intereated in the subject will secure a copy, and assiat, so far as possible, to make the code recognised as the best exposition of exhibition law. A. D.

The case mentioned by Mr. Patternon, p. 653, seema to have baen due to the bad judgment of the committee in appointing a jadge who did not know his daties. Codes of rales would be of no use to such a person; a good judge muot have a practical acqusintance with his work, especially in the case of vagrtable and fruit, and such persons are within reach of every horticultural society in the kingdom. When a man has grown thinge intelligently for a few years, he knows where to look for the weak points. and eapecially if he has been an exhibitor \&lvo. W. H. Divers, Belviir Castle Gardens, Grantham.
eulalia japonica.-I should like to know if it is unuaual for Eolalia japonica to flower? I have several large clumps which have been in my nursery for at least ten years, which have never flowered till this year. I am aurprised this plans is not commonly cultivated, as it makes a very handsome clamp, and more eapecially when carrying it long plamen of inflorescense. I find it to be mach hardier than the Pampas Graes, the severe frosta of last winter not affecting it in the least degree. C. Cundy.

THE COW PARBNIP (Heracleum Sphondylium), -I Was mach surprised a short time ago by seeiag this plant caltivated by a friend of mine who has about one acre of it, and to hear of the large quantity of green food that it prodaced. My friend tuld me that ha had two heavy crops last year, and after catting
is onca this year, he was lettiag it run to eeed. I is oncs this year, he was letting it ran to seed. I bast treated as a biennial. I ahould be glad to have the experience of some one who has caltivated this plant, and if it may bs convidered good food for cattle. My friend seems to think it an excellent food. If so, I woader that it is not commonly caltiTated as fodder. I know rabbits and pige are partial to it. C. Cundy.

QAB-LIME AB A MANURE.-I note with some interest what Mr. John Lambert states in reference to the use of gas-lime as an antidote for clab in Cabbages, and for the extirpation of wireworm. In lecturing to cottage and allotment-holdert, many complainta are mada an to the ravages of the wireworm, and the occurrence of clubbing in Cabbages and Canliflowern. If I anderatand Mr: Lambert rightly?
he recommend the use of gat-lime in a crude atate, just as it comes from the gasworks. It is true that he recommends its application in very emall proportions, but I have met with allotment-holders who have applied it to their land just in the form in which it is received from the work, and then foand it very difficalt to grow anything on the land for a year or two. It is no doabt a aseful agent, deatructive to insect-life when used as recommended by Mr. Ismbert; bat my fear is, lest some might pat too large a constraction apon his words, and apply it unwisely, and with unfortunate effecte. Mr. W. G. Watson. in his admirable paper on "Manares and their Uses," tells us that gas-lime "is a mixture of calcium hydrate and calcium carbonate, with sulphite of lime. The two latter compounds irs in themseves poisonous to plant-life, but they are both converted into gypam or sulphate of lime (a plant-food), by exposing the gar-lime to the action of the atmotphere." It may and, I fear, does happen, that when gat-lime is applied in a crade atate as received from the gasworke, the two c mpoands, poisonoas to plant-life, are present in undue proportion in the interesta of safety, hence the unfortunate reanle which I have heard allot-ment-holders deplore. Mr. Watson further atatea: -"To prepare freah gas-lime for use in the garden, it may be epread out on a layer of pondmud, night-soil, or coarse vegetsble refuse, end exposed to rain and air." This I hold to be sonod and necoseary advicp. If pat on cleared land in the autacon, it can be laid apon the surface at the rate of 40 lb . or so per rod, but it should lie on the surface for everal weeks before being forked in. taking care that it is distribated equally through the soil. It is undoubtedly a powerful remedial ageat in clearing land of insec: life, bat neede to be applied with caution. R.D. [It is doubtleas asfeat to use gas-lime after some weeka' exponure in the open for sarface-dressing, or when applying it to land dag to one apit in depth; but in the case of dressing the bottom woil in trenching and incorporating with the top pit, which is utaally thrown iato the bottom of the treaches in the small quantities recommended by Mr. Lambert, no harm, but rather good, would resalt from the use of gat lime in the fresh trate. Eid.]
packina competition at the crybtal PALACE.-Possibly no fresh light may be throwa now apon this sabject, but I am disposed to agree with "Oae of the Jadges" in his romarks anent the wame. If a practical gardener who has constantly to pack his produce is not capsble of judging in anch a case, I do not know who is. Some few years back at Chis: wick the judging was done by the froit committeo and othera there present as a body. That was certainly not so satiefactory as at the late show, from the aimple fact that some of those called apon to adjudicate had no practical knowledge of packing fruit for trannit as per schedule. Had it been otherwise the premier award would not have been made to oae of two boxes entered for two classes, these being sent tied together. Ia this way the larger one, by reason of its aize and waight, wat a protection to the smaller and successial one. Ia this respect I cannot agree with Mr. Harris, who fails to see why disqaalification should follow because the entries in two clasies were sent tied together. Most assuredly it should do so, and the jadges did quite right in thusuing their powers to dirqualify an exhibit. Ia packing for market, moss may be, and no doubs it, one of the best packing mediams, bat it does not follow that It in mo in every case. Perionally, I consider wood-wool preferable, from it freedom from dust, and it certainly is more cleanly in appearance ; whilst in regard to apotting being caused by its use, there need be no fear, if the fruit doen not remain packed after arrival, which in private use would not be the case, although in market use it might do eo. It is not the fault of the jadger if the achedule be not anfficiently explicit for intending competitors. In giving their award, they must interpret it to the best of their ability, and intending exhibitors ahould do likewiee. I inspected the echedule bofore the late show was held, with the intention of entering in the class for Grapes; but upon consideration I decided not to do so, simply because the wording was, in my opinion, somewhat vague. It certainly afforded a loop-hole for those who were disponed to take advantage of it, of bringing the fruit themselves. This han been done I know, but it should not be allowed. In this respect I am at one with Mr. Grindrod. In my opinion there should be classes for market as well at for privato packing in thene competition. A Prize Packer.

\section*{SOCIETIES.}

\section*{ROYAL HORTIOULTURAL.}

\author{
Sciontific Committee.
}

Nov. 26.-Present: Dr. M. T. Mesters (in the chair): Mr. Michael, Protessor Müller, Dr, Bonavia, Ber. W. Wilk, and Rev. G. Hendow. Hon. Sec.

Flies Attached by Fungus, - With referonce to the apecimens exhioited by the secretary at the lart meeting. it was reported from Kew that "the fungus is Empute culicie. A Braun (Alg. U'ncoll, gen.0 Nov, p. 105). It is comman in various parta of Rurope, aloo in the United 8tates, but not provionaly recorded for Britain." The apeoimea was propared by the inte Proteser J. S. Henalow in 1840.

Apple Diseased. - The black-ooated Apple brought to the last meeting proved to be attecked by Bclerotinis fructimena Rehm. (Krypt. Filora, Discom.o p. 67). The minute bleck Iumps on the Apple are the solerotia of the fungu, from whict the asciecrous Peziza form grow?. Negligence in epraying during the spring season, when the fungas is on the leave only, accounts for ite presence on the fruit.
Cocos Fouits.-The fruite exhibited at the lest meeting proved on further inveotigation to be of C. eriospatha, and not of C. australi', as suppored.
Carnations Attacked by Grubs.-Proleseor Maller exhibited a number of weovil like aruba which attacked the roots of Dianthus olusialis, completely destroying the stem, so that the upper part became detachod. They were forwarded to Mr McLachlan for examination, who has reported that they are probably those of Hylemyia nigressens, of the group Anthomyiidee of dipterous insecte.
Vine Stems, Malformed. - Dr. Masters exhibited portions of Vine stease witb hypertrophous growths of a tumourous appearance. There did not appear to be any fungus, but they consiated of new cork and wood only. Similar appearance had been sonn on Maréchal Niel Roses. It was probably due
to some injury, perhaps frost, with a subsequent eff Jet to to some injury,
Hybrid Abies.-Dr. Masters also showed a branch from a hy brid between Abies Pinsapo (female), and A. cephalonica (zale) An intermediate character was seen in the position of the resin capal, in that while in A. ceph. it is situated adjuining the epidermis and in A. Pins. it is more deoply seated, in the hybrit there was one layer of colls between the canal and the epidermio. The general form and habit more nearly rosembled \(\mathbf{A}\). ceph., whate the otrorg branches and thick loat approxicated 4 . Pine. The cones, however, with very visible bracts, were thoss of A. cepls.

\section*{EXETER GARDENERS' AGSOCIATION}

NOV was held in the Guildhall on the above date, when there wa a mood attendance. Mr. Hill, market gardener, Whipton. cocupied the chair. The business of the meeting was a discussion on Judgiag at Flower Show, Mr. Bowland, gr. to W Breck, Keq, of Parker' Well, leading by a well-thought-out paper.
Mr. Rowland, in the course of his remarks, alluded to the difficulties that could not well be svoided. When a judge begna his duties, he then, perhaps for the first time, got the echedule put into his hands, but unless he rad carefully con sidered it before beginning his work, he was liable to fall into orrors arising out of the special conditions of competition in the various classes being sometimes carelesely expresed. The oecasional necessity, according to the wording of the schedule. of diequalifying an exhibitor, led to disatisfaction, and the mal contents airing their supponed grievances, made things pretts unpleasant for the judge. In the neoesarily limited time al lowed for making the awards, points, apparently trivial, bat really important, were overlooked, and, igaoring the hamperisg surroundinge, the critics pounced upon any emall discrepancy. and railed against the judges. He, therefore, thought there ought to be one or two referees to follow and check any oversight on the part of those who were responsible for making the awards, so that the error might be there and then cor rected. As regarda Chryannthemums, it was difficult to com pare a large showy bloom with a more refined and equally meritoriousflower, though the latter might enffer in com parison as regards size or out ward attractivenose. To remedy this, be suggested that in a class of, say, thirty-nix blooms, twenty should be named in the schedule, then flower for flower of the same variety could be compared and edjudicmted upon.
A long discuseion followed, taken part in by Meews. Protheroe (Beaufort House), Weels (Stoke House), Lensdal (amateur), Carlyle, Hope, and others.
The mociety settled the arrangement of their schedule for their spring show, to be held on March 18, and also agreed to the annual mupper of the society being held on the first Iriday in January.
A vote of thanke to the chsirman, and to Mr. Rowiand for introducing the discumbion, wee pased.
Mr. Ontram, who hae travelled in the borticultural intereat for over twenty years in the United States, prowised to give paper in the epring on "The Progree of Horticulture in America." The paper for the neat fortnightly meetiog wes anounced, being one by the Dowager Countees of Morley' gardener, the rabject "Wild Garenoning, nad the Loyivg-oat of Pleasure Grounds."

\section*{CHESTER PAXTON SOCIETY}

November 19, 20.-The annual Fruit and Chrysanthemum xhibition was held in the Town Hall, under the auspices of the above society. This is the fifth exhibition which the ociety has held, and the entries each year have been better than those of preceding shows ; on the present occasion, they were twice as many as last year.
Over 1,200 dishes of fruit were exhibited, consisting of Apples and Pears, whose superior quality was apparent at a glance; and the excellence was quite general.
The competition was very keen in the classes for Ribston, Cos's Orange, and King of the Pippins; and for kitchen arieties, it was even more so. Peasgood's Nonsuch, Alfriston, Mère de Ménage, Blenheim Orange Pippin, Warner fruits of and Wareham Russet were extensively
the first-named variety being very fine.
The exhibition has, from its commencement, found much tavour in Cheshire and North Wales; and competent judges now say that it is one of the largest exhibitions of hardy fraits held in provincial towns.
Pears were largely shown, and splendid oxamples of Louise Bonne of Jersey. Marie. Louise, Pitmaston Duchess, and Doyenné du Comice, were noted,
Although this was the second ocoasion when the society has offered prizes for Chrysanthemums, the entries were fairly good, there being siz competitors for decorative groups. Most of the elasses for cut blooms were well contested, and the majority of the Japanese blooms were excellent. A notable feature was the keen competition in the class for the bestarranged bor of cut blooms of single-flowered Chrysanthemums. In the gardeners' class for fruit, the chief prizes were carried off by Mr. E. SEVERN, gro, Combermere Abbey: Mr. J. SAUMDERSON, gr., Bodnant Hall, Denbighshire; Mr. Worker, gr., Mollington Hall; Mr. John Taylor, gr., Hoole Hall; and Mr. Thomas Weaver, gra, Christleton Hall.
\(\Delta\) very fine collection of Apples and Pears, not for competition, was sent by Mr. Blraves, gro, Eaton Hall; and Messrs. Dicksons had also a tastefully arranged stand of hardy fraite, Orchids, Ferns, \&c. The Duke of Westmirster in declaring the exhibition open, threw out the hint that a very cood summer show might be established at Chester; and offered to help and suppliement any effort that might be made in this direction. The whole of the arrangements were ably carried ont by the Committee, with Mr. G. P. Miln as Secretary.

\section*{NATIONAL CERYSANTHEMUM.}

Drcimake 3, 4, 5. -The last show of the jear by the National Chrysanthemum Society at the Royal Aquarium lormed a fitting finale to a very successful season: Ravely has the quality of the exhibitions been so high as during 1895. Commencing with the early autumn show, the blooms exhibited on that oceasion were remarkable, and we wondered if better ones would be seen in November. In due time the excellence of the great annual show was acknowledged by all, and on the present occabion the Society may well be proud of the display made, for never has there been a finer collection of blooms shown in December than the 1st prize eshibit of twenty-four Japanese in oightoen varieties, from Mr. A. Hhegart. There was no class for groups at this late show, but the enterprise of the large growers was manifest in large miscellaneous collections of plants and flowers, very creditable to them. Cyclamens and Primulas added a little rariety, and made the show more interesting. As the whole of the floor space had been appropriated to the ladies' bicycle races ! the entire exhibition was held in the galleries.

\section*{Cut Blooms.}

As we have already stated, the let prize in the principal class for cut blooms of Chryeanthemums was taken by Mr. A. Haggart, gro to Mrs. Joneveron Foster, Moor Pary, Ladlow, who secured other valuable classes also. It may be interesting to give the variotive he staged in this clasa. They were Eitoile de Lyon, Kd. Molyneux, Niveum, Duke of Tork, Golden Gate, Mra. Harman Payne, Mdlle. M. Hoete, York, Goiden Gate, Mra. Harman Payne, Mdlle. M. Hoete,
M. Pancloucke, Lord Brooke. G. O. Sch wabe, Madame A. Moulin, Mra. W. H. Leew, Le P. du Boin, Viviand Morel, Beasty of Cuatiowood, Internationalo, Hobert Owen, and Mdlle. T. Rey. The and place wae taken by Mr, Henry Perrins, gr. to W. H. 8MrTE, Eeq.. Greenlands, Henley-onThames, in whose stand were!good blooms of Madame Carnot, Golden Wedding, and Primpose Loague. 3rd, Mr. W. Mease, gr. to A. Tate, Eqq., Downide, Leatherhead. There were oight exhibits.
Mr. Perkiss occupied the best position in the following clase, which was for twenty-four bunches of Chrysanthemum blooms, of any varieties ; 2nd, Mr. Jno. Aplin, gro to W. M. Baker, Reqq.o, Hasfield Oourt, Gloncester: 3rd, Mr. C. J. Waite, gr. to the Hon. W. P. Talieot, Glenhurst, Reher. The whole of the exhibits in this class had not the tasteful appearance the conditions were intended to encourage. In most cases the stems should have been loft longer, and varieties selested with good atout atems and erect flowers. The blooms ne they appenred in recoptacies sumilar to blackingbotties, had falleo, asd were huddied together in any thing but sa elegant manary, and were objest lesous is how "not to srrange a rase."
The best exhibitor asaong tan of twelve Japanese bloomas, dishaot, \#h Mr. Hugeasers, Dunflowar and Golden Gate wore noticeable in his collection: 2nd, Mr. W. Memenger, ge. to O. H. Beimerrs, Eeq., Woolvoutione Parl, Ipswich; end sid,

Mr. Jno. Aplin, Mr. HagGart won again in the class for gir blooms, "among ten or more exhibitors.

The principal class for incurved blooms, was one for twelve blooms, in not fewer than six varieties, and the quality of the exhibit was decidedly batter than we had expected would have been the case-1st, Mr. W. Neville, gr. to F. W. Flitert, Esq.o Cornstiles, Twyford, Winchester. The best blooms were Lord Alcester, Mrs. R. C. Kingston, Chas. H. Curtis, and a seedling ; \(2 a d, M r\) A. H \(\Delta G G \Delta R T\); and \(3 \mathrm{rll}, \mathrm{Mr}\). Jno. Aplin.
In the class for six blooms (incurved), Mr. H. Perkins was the beet exhibitor ; and Mr. W. Neville followed.
Another clas for bunches of blooms was arranged for twelve bunches of Japanese blooms, in not fewer than six varieties. None of these classes was satisfactory, although some of the blooms were of good quality, 1st, Mr. R. C. Notcut, Broughton Road Nursery, Ipewich; 2nd, Mr. H. Alderman, gr. to Gillilat Hatrield, Esq., Morden Hall, Surrey ; 3rd, Mr. S. J. Cook, gr. to T. H. Harbridge, Esq, Holmewood, Hendon, A similar class for six bunches was won by Mr
CrAWFORD, Gatton Park, Reigate.
The single flowered classes were pretty. The best collection twelve bunches of large-flowered varieties was from Mr. G. W. Forbes, gr. to D. Nicous, Esq., Regent's Houss, Surbiton, W. Forbes, gr. to D. Nicols, Esq., Regents Eens., Ésq., The and Mr. W. C. Pagram, gr. to J. Courtenar, Esq., The
Whim, Weybridge. Mr. A. Felgate, gr, to Her Grace the Whim, Weybridge. Mr. A. Felgate, gr, to Her Grace the Duchess of Welingeror, Burhill, Walton-on-Thames, had the
best collection of twelve bunches of small-flowered single varieties.
\(\mathbf{M r}_{\text {. }}\) T. Tullett won in the olase for sir bunches of smallflowered single varieties, and the one for siz bunches of largerflowered ones.
Amateurs.-The amateur showing best collection of six Japanese blooms distinct, was Mr. H. Love, 1, Melville Terrace, Sandown, Isle of Wight. The best exhibit of a vase of Chrysanthemum blooms was made by Mr. D. B. Crane, 4 , Woodview Terrace, Archway Road, Highgate, whose arrangement of moderatesized blooms, including some single ones, was praiseworthy. Mrs. W. Green, jar., Harold Wood, Essex, was 2nd.
Miscellaneous Plants.-The best collection of Cyclamens in pots was from the St. George's Nursery Company, Hanwell, who had a very large table filled with plants, among which were interspersed a few foliage plants. 2nd, Mr. J. F. McLeod, were interspersed g J. P. Morgiv, Esq., Dover House, Roehampton. In the gr. to J. P. Morgan, Esq., Dover House, Roehampton. In the
centre of Mr. McLeod's group was a panel formed of Adiantum centre of Mr. McLeod's group was a pane fith a few pretty plants of Crotons and Dracenas. The Ferns, with a few pretty plants of Crotons and Draceenas. The
best collection of twelve plants of Cyclamens was from Mr. best collection of twelve plants of Cyclamens was from Mr.
Mcleod; 2nd, Mr. W. Rapley, gr. to H. Grinuive, Esq.⿻ Harrow Weald House, Stanmore, whose plants were all white flowered ones.
fiowedest collection of Primula sinensis, plants in flower, was bhowd by Mr. A. Newell, gr, to Sir Edvin Saunders, Wimbledon Common, and mixed with foliage plants the effect was pretty; 2nd, Mr. J. P. McGregor, kr. to Dowager Lady HAY, North House, Putney Hill. Mr. A. Newell had the best twelve Primula plants ; 2nd, Mr. T. F. McGregor ; and the best dozen
double Primula sinensis were from Mr. W. Mease, gr. to A. double Primula sinensis were from Mr. W. Mease, gr. to A.
Tate, Eeq., Downside, Leatherhead. A very pretty collection of flowering, berried, and foliage plants arranged on a tabde, space 9 feet by 8 feet, was shown by Mr. W. Eowe, gr. to H. Tate, Esq., Purk Hill, Streatham Common, S.W.

Non-competitive exhibits,-The most important of these was a large group of Chrysanthemums arranged in a bold manner, with supplementary plants with decorative foliage, by Mr. H. J. Jones, Ryecroft Nursery, Lewisham. Mr. W. Welis, Rarlswood Nurseries, Redhill, had a group novel in arrange ment, the bachground being composed of a cork-clad wall with pockets for; Ferns, intertwined Ioy, and such things. In front of this there were between the mounds mossy spaces with trailing Ivy, suspended shower bouquets, \&ec. A large collection of cut bloome ran from the group on either side, and the whole was backed with white cloth. The arrangement would whole was backed with white cloth. The arrangement would have boen more effective if it had neen more boldy carried out. groap of plants in flower of the variety L. Canning, a well-known white one suitable for late decorative work. Mr. Norman Davis, Camberwell; Mr. W. J. Godfrey, Exmouth; and Mr. Robr. Owen, Maidenhead, had each a good representation of novelties, and of the newer but known kinde. Mr. J. R. CHARD, Stoke Newington, exhibited his floral arches, \& \(\mathrm{C}_{0}\). and Measre. Cutbuse \& Son, Highgate Nurseries, had a collection of flowering and foliage plante。Mr. A. Merridem had arranged a dinner-table; and Mr. C. J. WAITE exhibited vegetables in a satisfactory manner.
Mesore. SANxET \& Sons, Bulwell Pottery, near Nottingham, had a large exhibit, representing different varieties of garden pottery; and MP. W. Coxchester, Ipswich, had a displayed exhibit of Ichthemic Guano.

\section*{Floral Committee.}

DECEMBER 3.-A goodly number of novelties was submitted to the Floral Committee, though but few awards were made. \(\Delta\) First-class Certificate was gained by Mrs, Charles \(\mathbb{E}\). Shea, a delicate sulphur-white variety, raised by Mr. C. E. Shea, a fine ant full deep incurving flower of high merit, from Mr. A. Haggart, The Gardens, Moor Park, Ludlow. To decorative Golden Dart, as shown, a small sized deep yellow Japanese, full of promise for cutting purposes, and erpecially for market worl, from Mir. E. H. JEmkxw, Hampton Eim; and to decorative King of Plumes, a small yellow variety with feathered petals, very free and attractive, from Mr. R. OwEN. Other promising flowers which, though failing upon this oceanion to obtain awards, are yet of decided promise, ase:Decorative Jazett's Sheahan, a buef and gold sport from the
blush-coloured Princess Blanche, a large, well-flowered ban plant being staged, from Mr. D. Sheahan, nurseryman, Win. bledon; a aport from the incurved Jeanne d'Arc, of whieh the committee approved, but which they requested to see aghin in
bsiter condition, from Mr. J. TAIT, Lyneho Flight, a seedling white incurved, from T. W, Carlise; \(\mathbf{M}_{n}\) Twyford, Hants, which the from T. W. FLIGHT, Eloq, again; Japanese, Pearl Beauty, a very fine wished to again; Japanese, incurved Japanese, solid, and bath-colourad, broad-petalled incurved Japanese, solid, and foll, from Mr, Kull bright crimson fluwer, with an amber and full bright crimson fluwer, with an amber and gold reveree which the committee wished to see again; this, with other
novelties, came from Mr. R. OWEs, Maidenhead novelties, came from Mr. R. OWEN, Maidenhend; and in
curved Egyptian, from Mr. W.J. GoDFRET, wition then mittee regarded as an incurved Japanese, thestant cmomwith amber reverse.
A new design in flower-pots for large especimen plants of Chrs santhemume, from Messrs. R. SAMKEY \& Soir, Belme Notts, was commended by the committee.

The National Chrysanthemum Society enjoged ita annul dinner on the 27th ulto, when it was celebrated with on siderable enthusiasm at Anderton's Hotel, Fleet Street, one of the homes of the Society. Sir Edwin Saunders (Praident) occupied the chair, and there were present the officars of the Society, and a good number of Fellows. More interesting than the toast list (which was duly observed) was the pressatation of the Medals and special prizes awarded at the recent grat shows, which included the handing over of the two Holma Memorial Cups to Mr. W. H. Lees. The Chairman, in propoiag "The National Chrysanthemum Society," gave an interestiang description of some of the political and social featumes of China, as the country to which we owe the introdection o the Chrysanthemum

\section*{READING AND DISTRICT GAR DENERS MUTUAL IMPROVR. MENT ASSOCIATION.}

DECEMBER 2.-The fortnightly meeting of the above ano ciation was held in the Club Room at the British Workman on Monday evening last, Mr. Woolford presiding oret the largest gathering of members present at any of the meting this season.
After the usual business had been disposed of, and a ler introductory remarks from the chairman, Mr. E. J. Dehrid Mesbrs, Sutton \& Son's gave a highly interesting leotare on - The Garden Pea and its Varieties." The lecture was mado doubly interesting and instructive by the many excellem diagrams prepared by Mr. DEAL, setting forth the pecoliarition and variations of the shape of pods of the varions typu of Peas.
A very interesting discussion took place, in which Meers. Woolford, Lees, Hinton, Burton, Tubtor, Deariorg, Bowie, Tugrail, and alexander took parto Many quas tions were asked by members present, which the Lecturer ably answered. On the proposition of Mr. LeEs, seconded by 1 lr Neve, a hearty vote of thanks was passed to Mr. DELI, ad the wish expressed that as the subject was of much interest he would again take it up on a future occasion.

\section*{TREATMENT OF TREES R CEIVED DURING FROST.}

I was seaking recently to a friend on the above subject, who pointedly remarked that "thowo who know their business send their orders early, and ail not troubled about receiving frozen trees." WN mont of as are familiar with the advantages to bo derived by mending early ordern. Neverthelem, for easont over which we have no control, we nut time receive trees that are frozen, and then the queation arises, what is best to be done with them! Several instancea have come to my knowlodge o trees, \&c., received in this condition, being trented in a way (and that too by men commanding gool positions as gardeners) which, when described, wh appear incredible. A case referred to was that of some Peach trees, which on arriving at their dentims tion, were found to have their branches and rook frozen through. They were at once anpacked, their branchea conaiderably mortened, and rook trimmed, and then planted in two where border had been prepared for them; mand over, to make mattern worse, the pipes were whu in order to thaw the trees! I asm these treot following autumn, and noticed they ware ven mat gummed, and that their branches had died buch wa ntems, from which, however, young wis was made-how these treas ultimatioly case refers to some Apple treen, which, wher fo ceifed in a similar ataie, were unpacked laid in a outh border, where they man thawed by the aun. They were sabsec nid planted, but rome of them cankered, ani
did well-in fact, they becsme an eye-nore and were burned. Another case wan that of some hundreds of Yew treez, which in tranait by rail were much frozen. These, on reaching their destination, were thawed by warm water, and the following epring, after they were planted, nearly half of them were dead. Farther deacriptiona apon this line of mismanagement woald be irksome; I will therefore turn to mome cases of nuccessful treatment. The first of these refers to a number of bundles of ahrubs and Coniferm, which, when received badly frozen, were placed in a cool cellar, where they remained until a natural thaw took place, after which they were planted in their permanent places, where, with very few exceptions, they grew well, and were in every way estisfactory.
The following are particalars of a case that occarred here lat winter, and refers to mome dozens of Apples, Plams, Guoseberries, and Carrante, which were ordered late for some new cottage gardens. These left a nursery on January 25 (the day the mevere frost set in), and throagh an overaight, did not reach here for several days, when they were severely frozen. They were in bundlex, surrounded with atraw, which was not removad. For want of a better place the bundles were stacked together on the floor of a north shed, and covered with a thick layer of dry litter, where, owing to the frost, they remained until some time in March (I do not recollect the date) before they could be planted, at which time, to nay the leat, they did not look promising. I have watched the progrens of these treen and buahes with considerable intereat, and noticed that only four died (excepting an Apple, which was killed through' being barked by a rabbit); and thene were Victoria Plums. The Applen have made good thort jointed growths, and aeveral of them blosnomed freely and bore some good fruits, as did also the Gooseberries.
The above remark on varioas modes of treatment may be at least a guide to the uninitiated how to treat and how not to treat trees, \&c., when received in a frozen condition. They prove that artificial thawing is disastrous, and that the only wafe course to take is to leave the plants in their packagen, keep them from air in the dark, and safe from further frout, until they are naturally thawed, when, an the first opportunity offers, they whould be planted. Thos. Coomber.

\section*{The Herbaceous Border.}

\section*{AISTRGEMERIAS.}

The prement in a good time to plant any of the hardy varietien of these uneful plants. They are nerviceable an cut flowern, embracing some very atriking hades of colour, that the flower are alway welcome, and not the leat point in their favour in that a foot or more in length of atem is readily obtainable when auch in needed. Of nome importance in their succenfal cultare is the aelection of a auitable ponition, where there is no fear that the plantil will be disturbed. A south or south-west border anits them, but they may be planted in other positions. It is not advisable to mix them with the usual occupant of the herbaceous border, for they are apt to travel about by means of underground items. An important matter is to plant them at a a afe depth below grouad, so as to be afe from injury by frost. For thit reason they thould be fully 6 inche or 8 inches below the sarface. At the latter depth they are parfectly asfe, even in our most severe winters. At planting-time remove this depth of top-toil from the bed, then add a liberal dressing of rotten manure, and dig it into the aub. avil. Roughly level this off, adding a layer of sharp river and, then lay the tuber on thia bed at a few inches apart. In this way a large number of roots may be grown in quite a mall opace, and a good display of flowers result. The varieties beat saited for this are aurantiaca, the form: of chilenais, and paittacina. For ite intrinnic worth none perhapa is nearly so valuable in the outer garden as the first-
nsmed. There is, however, a singular variety of colour, as almo in pictureque character, in the varying forme of chilensis; and benides, these latter are earlier to bloom, and have their own apecial value on this account. J.

\section*{Gbituary.}

LADY LAWE8.-It ie with deep regret that we record the death, at the age of 73 years, of Lady Caroline Lawen, the wife of Sir John Bennett Lawen, Bart., of Rothamited, who expired on Friday alternoon of last week (the 29 th alt.), after a comparatively short illneas, at their Scottish seat, Ardchallan Priory, Lock Etive, Argyllshire. The body of the deceased lady wat conveyed to Harpenden, and interred in the parish churchyard on Taesday lat.

\section*{Trade Notice. \\ FAILURE OF A SHROPSHIRE SEEDSMAN AND FLORIST.}

The failure is announced of Mr. Robert Porter, meedaman and florist, of The Croms, Oawestry, and of the Rose Hill, Whittington, and Fron Selattyn Nuraerien. The atatement of affair ahow the gross liabilities to be \(£ 373658.9 d\)., expected to rank \(£ 1700\) 15s. \(9 d_{\text {., }}\) and assets \(£ 263312 s\). 1d., leaving a arplus of assets of \(£ 932 \mathrm{16v}, 4 d\). The debtor alleges as the cause of failure, ill-health for the last four jears, general depression in trade, keener competition, and difficulty of collecting accounts. The official receiver points out that the receiving order was made on a creditor's petition. The debtor intends to offer a composition of 20 s . in the pound. He own the freehold property, 6, The Crons, Oswestry, valued by him at \(£ 1500\), and the Rone Hill Naraery, Whittington, valued at \(£ 2000\), and it is from the value of these propertien that the surplus of astets is shown. Liverpool Post, November 22, 1895,

Mesars. Mesgengra \& Co.. horticultural bailders and hot-water engineers, have removed their baninens operations to extenaive new premises recently erected, close to the London \& North-Weatern railway atation at Loughboro'. The new buildinge occapy a aite 2 acrea in extent.

Markets.
COVENT GARDEN, December 5.
[We cannot accept any responsibility for the subjoined reports. They are furnished to us regularly every Thursday, by the kindness of several of the principal salesman, who revise the list. and who are responuible for the quotations. It must be remembered that these quotations do not represent the prices on any particular day, but only the general averages for the weel proceding the date of our report. The prices dopend apon the quality of the samples, the aupply in the market, and the demand; and they may fluctuate, not only


Fbut.-Averle Wholishle Priors.
\begin{tabular}{|c|c|}
\hline frut.-Averace & holisale Prices. \\
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Cut Flowers, -Avehage Wholesale Prices.


Vegricables.-Avemage Wholmale raices
Oaulifiowers, p. crate \({ }^{8 . d . d} \left\lvert\, \begin{array}{ll}\text { s.d. } & \text { Onions, Eng., buch. } 20 \\ \text { s.d. A.d }\end{array}\right.\)
 Mushrooms, per lb. 0 8- 10 grown. p.doz. 16 Cucumbers, per doz. 5 0-6 6 Onions, Dutch, per Potatos.
Trade slow supplies heavy. 8nowdrops 70t. to 90s. Hebrons, 75 s . to 85 s ; ; Bruees, 46s. to 60 s ; Black lands, 30s. to 45s. J. B. Thomas.

\section*{SEEDSS.}

Londoy: December 4.-Mown, John Ghaw a Sops, Seed Merchants, of Great Mare Pond, Borough, London, 8.E. state that the soed murlet to-day presented no new or atrikipe feature. A few cocmional sales of Olover meed, do., are taking place, but as yet no general country trade has sprong up Meantime, value all round are without important alteration White Clover seed, however, offors more freely. In Bird seed there is this week no noteworthy change Peas and Haricots realise former torms, Lingeed is firm. Mustard and Rapeseed heep steady.

\section*{FRUITS AND VEGETABLES.}

BOLOVGII : Dre, 3 - Quotations :-Cabbages, 2\%, to 3 per tally; Savoys, 3s, 6d, to 68, do.; Carrota and Turmipe s. to 2s. 6d, per dozen bunches: Oaions, 2s. 9d, to 3s. 6d. per bag ; Horearadiah, 1s, to 1v.6d. per buudle; Apples, 38. to te. per bushel; Chvatnuta, 6s. to 8s, 6d. per bag; Walaute, is. to ts. 6d. do.
Spitalyields: Duc, 3.-Quotations:-Cabbages, 4s. to 5t per tally; Collards, 1s. 6d. to 2s. 6d. do. ; Leeke, 1s. to 1s. 6d per dozen; bunch Greens, 1s. 3d. to 1s. 6d. per dazen; Saroye 3s. to 5s. per tally ; Cauliflowers, 5s, to 6s, do.; Sprouta, 1s. 3 d to 1 s .6 d . per half-sieve; do., 2s. 3d. to 3s, 6d. per bushel Boetroot, 1s. to 18. 3 d . per bushel ; Parsnips, 6d. to \(9 d_{\text {, per }}\) score ; Carrote, 7s, to 8s. per dozen; Horseradish, 1s. to 1s. 2d per bundle; Apples, cooking, 3s. 6d, to 4s. per buahel; do dessert, 45. 6d. to 5s. per buahel;-Cookers are Queens and Northern Greeningo; deasert, Blenheim and King Pippin.
8tratford, Dec. 3.- There has been a plentiful supply of all kinds, and a fuir trade done, except in Potatow, which is slow trade. Collards, 18. 3d. to 18. 8d. per tally; 8avoys, 3s. \(6 d\). to 4s. \(6 d\), do. ; Greens, 1s. to 1s, 31, per doven bunches Cauliflowers, 1s to 1s. \(3 d\) per dozen ; do \(48.6 d\) to \(8 s\) per tally; Scotch Kale, \(9 d\) to 1s. per sieve; Turnips, 1s. \(6 d\), to 1s. 9 d. per dozen buaches; do., 30s. to 40 s. per ton; Carrots, household, 24s. to 28 s . do. ; do., cattle-feeding, 18s. to 24 s . household, 24s. to 28s. do.; do., cattle-feeding, 18s. to 24 s .
do.; Parsnipe, 10s. to 45 s . do.; Mangels, 11 s . to 12 s . do. do.; Parsnips, 10s. to 45 s . do.; Mangels, 11s. to 12 s . do. do., Dutch, \(2 s .9 d_{\text {. to }}\) 3s. per bag; do., Ports., 48. to 5s. per case; Apples, English, cookers, 2s. 6d. to 33. 8d. per bushel ; do., deseert, 2s. 6d. to 3s. \(8 d\). per sieve; do., Nova Scotian, 12 s to 14s. per barrel: Pears, English, 2s. 6d, to \(3 s, 6 d\). per sieve: Beet-root, 2s, to 2s. 6d. per bag; Horse-radish, 1s, to 1s. \(3 d\). per bundie; Parley, 1s. \(6 d\), to \(2 s\), per dozen brandies Bruseelo Sprouts, 1s. 3d, to 1s 6d, per half-nieve; do., 2s. \(3 d\) to 2s. 6d. per flat
FArrovedon: Dec. 5.-Quotations:-Cabbages (Collards) 56. per tally: Savoys, 45. 6d. do.; Cauliflowern, 88. do. Spronte, 1s.44. per haff-sieve; Parsuips, 3s. per ack; Turnipn, 28. per dozen buaches; Carrota, 18. 6d. per sack; Beets, 18. 6d. per buehel; Leels, 2s. per doven; Celery, 1s. par roll 12. 6 d. per doratel; Loels, 2s. per dozen; Calery, ls. par roll Wellingtons, 4s. 6d, do. Canadian Bibstons, 18s. per barrel; do. Newtowns, 18s, do: do. Baldwins, 18s. do. ; Greenipgs 10s. do.; Tomatos, 7t. per 121b.; Grapes, Eaglish, 1s. per 1b,

\section*{HAY.}

Amprages-The following are the ararages of the prices et the motropolitan markets during the pest week:-Clover, prime, 80w. to 100s.; do. inferior, 30 s , to 70 e . ; hay, beot, 608. to 90\%. : do., inforior, 33s. to 60s.; mixture, 70s. to 85s. ; and sturiw, 20s. to 42t. per load.

\section*{POTATOS.}

Bonough: December 3.-Quotations ranged between 40s. and 80s. per ton.
Spithlfields: December 3.-Quotations: - Main Crop Kidneys, 50s. to 70s. ; Snowdrops. 60s. to 80s.; Bruces, 40 s. to 60 s.; Reading Giant, 40 s . to 60 s. ; Hebrons, 555 s. to \(80 \mathrm{~s}^{2}\); Imperators, 45s. to \(60 \mathrm{~s}_{0}\); Sutton's Abundance, 30s. to \(70{ }^{2}\). per ton.

Farringono: December 5.-Quotations: Dunbars, 90s. to O0s. Snowdrops, 60s. to \(90 \mathrm{~s}_{\mathrm{o}}\); Hebrons, 60 s . to 90 s . ; Sutton's Abundance, 55 s . to 65 s, ; Paritans, 50 s . to \(55 s_{0}\); Karly Rose, 50 s. to 55 s 。 ; Magnums, 40s. to 50s.; Imperators, 40 s. to 50 s per ton.
Stratrord, December 3.-Quotations:-Bruces, dark moil, 30s. to 40 s . do., light, 40 s . to 60 s . ; Reading Giants, 45 s . to 30s. © Sutton's Abundance, 60s. to \(6 \mathrm{~s}^{3}\) s. Der ton.

\section*{CORN.}

Averages. - Official atatement of the average pricon of British Corn, imperial measure (qr.), for the weelr ending November 30, and for the corresponding period in the previous year :-1895: Wheat, 25s. 2d. ; Barley, 24s. 7 d. ; Oats, \(14 \mathrm{~s} .3{ }^{2}\). 1894 : Wheat, 20s. 7d.; Barley, 22s. ; Osts, 14s. 3d.


The term "accumulated temperature" indicates the aggre sate amount, as well as the duration, of degrees of temperature above or below \(42^{\circ}\) Fahr. for the period namod: and this combined result is expressed in Day degrees - a "Day-degree" signifging \(1^{\circ}\) continued fo twenty-four hours, of any other number of degrees for an inveraely proportional number of hours.]


The districts indicated by number in the efst column are the following:

THE PAST WEEK

THE follo wing summary record of the weather throughout the British Islands for the week ending November 30 , is furnished from the Meteorological Office:-
"The weather was almost continuously dull over England and the east of Bcotland, with a great deal of mist; over Iroland and the west and north of Scotiand the aky was frequently clear-sopecially during the earliep half of the period. Fory littlo rain fell in sny part of the Kingdom natil the middle of the week, but from that time the falle were frequent, and is some places rather considerable.
"The temperature was rather low during the earlier part of the period, but subsequeatly rose, and gradually became high for the time of yeer. The average vilues for the weel were concequentiy agaic above the normal, the excess ranging from \(1^{\circ}\) in moat of the waters and north-wentern districta, to \(3^{\circ}\) in the north-cast, eant, and sauth. The highest of the maxima ware recorded towards the end of the wenk, and varied from \(58^{\circ}\) in the "Charnal Talands, and \(57^{\circ}\) in "England
8.W. and Ireland, S., to \(49^{\circ}\) in 'England, N.E.' The lowest of the minims occurred either on the 24 th or 25 th, when thes ranged from \(23^{\circ}\) to \(30^{\circ}\) in Scotland, from \(28^{\circ}\) to \(27^{\circ}\) in Ireland, and from \(29^{\circ}\) to \(33^{\circ}\) over England. In the 'Channel Islands,' the lowest reading was \(37^{\circ}\).

The rainfall exceeded the mean in "England, 8. and the Midland Counties' and just equalled it in 'England, E. I ll districts there was deficit. that in 'Scotland, N all other districts there was
"The bright sunshine was very deficient over England and the east of Scotland, but exceeded the mean in Ireland and the north and wes: of Scotland. The percentage of the possible duration ranged from 33 in 'Ireland, N.,' and 30 in 'Ireland, \(\mathbb{S . , '}\) and from 21 in 'Scotland, N.,' and 20 in Ecotland, \(\dot{W}\). and the Channel Islands, to between 10 and over the greater part of England, and to 1 in 'Scotland, E,'

\section*{Varlorum.}

Chrysanthemums Grafted On Anthemis. -I have lately noticed, at the Cbâtsean of M. Jean Everaerts, Mortael, Antwerp, four Chryanthemam grafted apon Anthemis stock; and the following are the dimension of these planta, and the number of the flowers:-
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Flowers.} & \multicolumn{2}{|l|}{Height of Plant.} & \multicolumn{2}{|l|}{Diameter of Plant.} \\
\hline Etoile de Lyon, 300 & - & - 0 & ... & 5 f & eet & & feet \\
\hline Précoce blanc, 500 & ... & ... & ... & \(6 \frac{1}{3}\) & * & \(9 \frac{1}{2}\) & " \\
\hline Val d'Andorre, 200 & ... & .0. & ** & 5 & " & 64 & " \\
\hline Avalanche, 200 & ** & .'. & -* & \(5 \frac{1}{2}\) & " & 8 & ,, \\
\hline
\end{tabular}

\section*{Ch. De B.}

Evolution in the Chrysanthemum.-Mr. Martin White's suggestion to the gardeners to atudy evolution in the Chrysanthemam is one which they ought to find particularly easy and pleasant to follow. Nobody know with absolute certainty the natural species from which the vat number of forms of the flower at prenent known to horticulture have sprung. The Japaneas atock on which we have worked was already modified into shapes and hues correspondent with the dainty taste of that people when we began operations upon it. Bat nothing ia more certain than that in the Chryannthemam the gardener possesses a flower of unequalled mobility, whether he attempts its modification by means of hybridisation, or by the better, if slower, mean of selection. Nor is it to be apposed that the scientific interest in the process is exhausted by the fact that countless varieties of blooms have already been produced. It is a remarkable thing that hitherto variation bas followed taste with what might almost be called docility. In Japan taate is prim and neat, or nothing-the Japanese Chryaanthemum is prim and neat. The elimination of the unprim has been, of course, a prime element in the process. In this country the taste in for variety, and even extravagance-and the docile Chryanthemum is most varied, and an extravagant an could be wished. Bat in both countrie tate, concerned entirely with the bloom, has ignored the calyx, and under the mot fantastic of flowers the observer may atill see the unchanged calyx of the natural plant, hardly differing, eave slightly in the morphological regarda demanded by the increased weight of the floral atructure, from the calyx of the wild Chrysanthemum common to the Scottish fields. Will any gardener, to whom experiment is dear, try his hand at the modification of the caljx? And, by the way, har any gardener ever tried to "improve" the wild Britioh variety referred to? Dundee Advertiser, November 21, 1895.


Amprican Phasts: A. J.B. Naturally, you ahould apply to the addrens givea in the advertisement, viz.:-Harland P. Kelsey, Higbland's Nareery, Kewans, Michell County, North Carolina, U.S.A.

Books: C. W. No Gardener will give you ju the kind of information required.-T.G. B. Cul tivated Plants, by F. W. Burbidge, published by Blackwood, London; an excellent book by met with only at second-hand book-ahope J. D. B. My Gardener, by H. W. Ward, pab liahed by Eyre \& Spottiswoode, Eat Hardio Street, E.C.j Vines and Vine-culture, by A. \(\mathbb{R}\) Barron, pablished at 171, Fleet Sireet, E.C.

Cinkrarias, \&c., with Drops of Watrr on fre Lizap. exate: \(J . A\). The renult of exudation from the leaves in the case of plants standing in rocently. watered soil. There is some amouts of sbrortion of moisture by plants not in a gorgat condition, but not by others.

Correction: Re obituary notice of Richard Gilbert, - We are requented to atate that the late ganduar at Barghley House was not the tenant of the garden, as atated in our notice of his lifo, bas continued to be head gardener to the lath.

Croton Leaves Injured: M. R. Morgan, The damage to the Croton leave may arise from tho ill-effects of team from the hot-water pipen; or if the pipes have been re-blacked, from the ataff used in colouring the pipes. Some are anmin enough to use gas-tar for this purpone, and the results of this may be witnensed for years aftero warda. Sometimes an untrapped drain in tho house will cause similar damage. In fact, there are numbers of ways in which the minchief might arise, and which would be eanily determinable if we were on the pot, but not easy for an abreateon to point out.
Dressing for Vines: C. S. If you carefully real our "Fruits under Glass" Calendar in Gardewry' Chronicle for November 30, you will find jut the mort of information that you require.
Flora of Domfriesshire: J. K. You shonld advertise in our colamns; or enquire of some Scon bookseller.
Fruits, Seedling: Jino. Barnett. Your eeedicg Apple is fairly good, but not superior to may others in caltivation. The Pear seems to distinct, and well worth cultivation. Wo cha find no trace of the name "Auguste Mignamd." Your photograph shows that an excellent crop has been borne by the tree, and it has been viry akilfully cultivated.
Ivx: L. P. We do not auppose that Iry of ary plant is banefited by having ite leaven cul of, will tidy gardeners cut the Iry that covers their will close to the wall almost, so that the folisge andil have a neat fresh green appearance, and not, oming to its weight, pull the ontire plant to the ground, an it otherwise might do.
Kew: \(F\). W. If you will enquire of the Direther, you will be farnished with fall partiellan regarding necesary acquirementu, \&c.
Mariet Annuals: W. \& S. These are fer too numeroua for as to give a list in this place, bed we will mention a few. Drarf Namartinman in good diatinct colour, Coreopsis vart, Carjearther mam Barridgeanum, C. carinatum, C. triedor, Gyeophila paniculata, Reneda odorata (Migroo nette). Ten-week and East Lothian Srockh Petunias, Verbenas, Zinnias, Aatera, Sweet Salma various Globs Amaranth, Balsams, \&c.
Manore for Light Dry Land: J. L. A. Whatom manure is applied should bo well-decajed ad rich, con and pig-dung answering bettor then that from the stablem alone. If you could parm come sheep on the land, say, from forty to nisy animale, on half-acre patches at a time, foedibut them with oil-cake, and Swedes, of Tarniph they would consolidate as well as enrich it. drainage-water from the dang-yard blouid eaved and distributed over the land in tho boore it The land should not be ploughed or dug fation is required to be planted, as much of ther liedt properties of the manure is soon lost in vers in land; it may, indeed, be advisable to dinuming the the manare in the farrows when plat dreuibs of potaeh and lime, or saperphosphate of lim
Muscat Grapes: Muscat. We do not know of wit variety that is more musky than Macest of Ale andria. Taere are Mrs. Pince, black Kineth with a good Mascat flsvour, and Chavielas Man Mascat Dr. Hogg inquired sbont is af fae Frontignan, raieed by Mr, Pearson, Chilwell

Names of Fruits: \(P\). Specimen not sofficiently good to determine.-A. G.F. 1, Bearré Diel; 2, Cellini; 3, Eyg or White Paradise; 4, Mank'a Codlin. - C. W. Strickland. Pear, Nouveau Poilear: Apple not quite aure of, resembles Annie E!izabath.-Geo. Abbey. 1, Beursé Clairgean: 2 Beurıé Diel: 3, Kaight’' Monarch. - A. J. B. 1 and 2. Beurré Diel; 3, Vicar nf Winlfield; 4, Marie Louise. - Wheeler. 1, Barré Diel: 2, Coramontelle.-W. Houghton. 1, Bearı́́ Diel.J. Rogers. 1, Dutch Codin; 2, Court Pendu Plat ; 3. Cellini; 4. Hoary Morning; 5, Tibbet's Pear-main.-W. S. \(B .1\) and 2, not recognised; 3, Grange's Pearmain; 4, Alfriaton; 5, London Pippin; 6 Emperor Alexander (fruit shrivelled).J. K. of Son. Apples, 1, Waltham Abbry Soed. ling: 2, Golden Spire; 3, Warner's King; 4, Alfrinton; 5. Cockpit. Pears, 1, Uvedale's St. Germain; 2, Colmar d'Aremberg; 3, Huyshe' Victoria; 4 , too small.-C.C. Cydonia vulgaria, Qaince.
Names of Plants: Correspondents not answered in this issue are requested to consult the next number. Constant Reader. 1, not found; 2, Retinospora plumona variegata of gardens; 3, Eaonymus radicans; 4, Caprenaus natraenas, the Thuiopis borealis of gardena; 5 , Thuia orientalis ; 6 , Capresaus Lawsoniana.-Subscriber. 1, Thuiopsis dolabrata of gardena; 2, Thaia orientalis (Biota); 3, Retinospora filifera of gardens; 4, Libocedrue chilensis: 5, Thaia occidentalis. varietv Vervaneana; 6, Thaia gigantea. -T. W. B. Abiea grandis.-H.D. A very fine variety of Odontoglosam odoratum, so far as we can jadge by the dried flower received.-Masters. 1 and 2 seem to be both amall barren fronds of Cyrtomiam caryotidenm ; 3. Hoffmannia (Higginnia) Ghieabreghtii variegata, fruit next week-J. M. Aganisia coerulea, Rehb, fo, published in the Gardeners' Chronicle, Jane 5, 1886, p. 720. It is the Acacallis corulea of Lindley, and it hat never been common in gardens. The brown marks on the leaf sent are not caused by disease; such appearances often develop after condensed moisture has ettled on the leaf, sometime while yet in its young state by the moisture collecting in the centre. The damage may not be viaible till long after that which has caused it has taken place.-J. O., Fota Island. Palm. 1. Trachycarpas excelaus (Chamzrops Fortanei); 2, an abnormal condition of the mame, in which the three carpels are equally developed.
Raspberies: F. J. F. Distance to plant if eelfsupporting, 3 feet by 4 feet. This distance will do for Fastolf, Carter's Prolific, Rad Antwerp, and Norwich Wonder. Semper fidelia, and Saper= lative want more space.
Saxifraga pyramidalis: Anxious. Thie is now called S. cotyledon. The plant is of easy culture in loam and broken sandatone, with good drainage if in pots. Keep in a cool greenhouse in winter near the glans, and afford it bat little water till growth re-commences. Potting and division in the spríag.

Communications Received.-E. Mawloy.-C. H.-G. W. W. P.-D. B. C. - Harrison Weir. - M. Rivoire, Lyon. - Ernes Rose, Paris. - H. de V., Paris. - Proleseor Penzig, Genos. A. I. P. - J. Batters.-Royal Institution.- G. H. H. (nest weel, - Fota.-H. Po M. - T. M, P. - Bonnett \& Roxby.-\(-\mathrm{M}_{0}\) R. M. - D. - E. - Dr. Dammer, Berlin, -A. H. S. - R. T. Lott. -L. G. -J. P. -R. H. Masters. - W. J. W. -W. S. - E
 -A. F- -8utton \&one-J. W.-H. M.-
Photocrapis, specimens, de., Receit

DIED.-Mrs. Agnre Saythe, on November 26, 1895, auddenly, the wife of our eateemed correpondent, Mr. Wm. 8mythe, gardener at Basing Park, Alton, Hampshire.

CONTINUED INCREASA in the CIRCULATION OF THE "GARDENERS" CHRONICLE."
uportamt to Advertisers, - The Publisher has the atis faction of onnouncting that the circulation of the "Gardeners' Chronicle" has, since the reduction in the price of the paper.
Incraased to the extent of more than 80 por conto, and that it conthues to increase weekly.
Qdowntisers are reminded that the "Chronicle" circulates among OOUMTBY GENTLEMEIT, AND \(A L L\) CLABEES OT GARDEITERS UMD OARDIM-LOVLRR at home, that te has a specially large
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Subscribers who experience any difficulty in obtaining their copies regularly, are particularly requested to communicate with the Publisher (in cases of delay in the delivery by post, the cover should be forwarded with complaint).

\section*{POTATOS.}

Bonoveris: December 3.-Quotations ranged botween 40 s. and 80 . per ton.
Spitalflelds : December 3.-Quotation: - Main Crop Kidneys, 50s. to 70s.; Snowdropa. 60s. to 80s.; Braces, 40 s . to 60s. : Readivg Giant, 40s, to 60s. ; Hebrons, 55s, to 80s. Imperators, 45s. to 60 s : Sutton's Abandance, 50s. to 70 s . per ton.
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Chaysanthemumb Grafted on Anthemis. -I have lately noticed, at the Cbâtear of M. Jean Everaerta, Mortel, Antwerp, foar Chryanathemams grafted upon Anthemis atock; and the following are the dimensions of thene plants, and the number of the flowers:-
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{Flowers.} & & & \multicolumn{2}{|l|}{Height of Plant.} & \multicolumn{2}{|l|}{Diameter of Plant.} \\
\hline Etoile de Lyon, 300 & .. & ... & ... & 5 & feet & 81 & fee \\
\hline Précoce blanc, 500 & ... & ... & ... & 时 & " & 91 & " \\
\hline Val d'Andorre, 200 & ... & ... & ... & 5 & - & 6 & , \\
\hline Avalanche, 200 & ... & ... & ... & & " & 8 & " \\
\hline
\end{tabular}

\section*{Ch. De \(B\).}

Evolution in the Chrysanthemum.-Mr. Martin White's suggestion to the gardeners to atudy evolation in the Chryanthemum is one which they ought to find particularly easy and pleasant to follow. Nobody knows with absolate certainty the natural species from which the vat number of forms of the flower at prement known to horticulture have eprung. The Japanese tock on which we have worked was already modified into mapes and hues correspondent with the dainty taste of that people when we began operations upon it. Bat nothing is more certain than that in the Chrysanthemum the gardener poasensen a flower of unequalled mobility, whether he attempts its modification by means of hybridiation, or by the better, if slower, means of selection. Nor is it to be napposed that the scientific interent in the process is exhausted by the fact that countlens varieties of blooms have already been produced. It is a remarkable thing that hitherto variation has followed taste with what might almost be called docility. In Japan taste is prim and neat, or nothing-the Japanese Chryanthemum is prim and neat. The elimination of the unprim has been, of course, a prime element in the process. In this country the taste in for variety, and even extravagance-and the docile Chrysanthemum is mont varied, and as extravagant an conld be wished. Bat in both countries taste, concerned entirely with the bloom, has ignored the calyx, and under the mont fantatic of flowers the observer may till aee the unchanged calyx of the natural flant, hardly differing, save alighty in the morphological regards demanded by the increased weight of the floral atructure, from the calyx of the wild Chryanntheraum common to the Scottioh fielde. Will any gardener, to whom experiment is dear, try his hand at the modification of the calyx? And, by the way, has any gardener ever tried to "improve" the wild British variety referred to? Dundee Advsrtiser, November 21, 1895.


Ampricar Plants: A. J. B. Natarally, you ahould apply to the addres givea in the advertisement, viz.:-Harland P. Koliey, Highland's Nareery, Kewana, Michell County, North Carolina, U.S.A.

Booss: C. W. S. My Gardener will give you jat the kind of information required.-T.G. \(\boldsymbol{H}\). Cultivated Plants, by F. W. Barbidge, publimhed by Blackwood, London; an excellent book, now met with only at second-hand book-shops. J. D. B. My Gardener, bs H. W. Ward, pab. lished by Eyre \& Spottiswoode, Eatt Harding Street, E.C.; Vines and Vins-culture, by A. \(\mathbf{F}\). Barron, pablished at 171, Fieet Soreet, E.C.
Cinrrarias, \&c., with Drops of Water on the Lhafo kDGE: J. A. The reate of exadation from the leaves in the case of plante atanding in recentlywatered soil. There is some amount of abarption of moiature by plants not in a gorged condition, bat not by others.
Correction: Re obitaary notice of Richard Gilbert. -We are requested to state that the late gardener at Barghley House was not the tenant of the garden, at atated in our notice of his life, bat continued to be head gardener to the last.
Croton Leavrs Injured: M. \(R\), Morgan. The damage to the Croton leave may arite from the ill-effect of steam from the hot-water pipes; or If the pipan have been re-blacked, from the atulf uned in colouring the pipes. Some are unwise enough to use pas-tar for this purpose, and the resalts of this may be witnessed for years afterwards. Sometime an untrapped drain in the house will cause aimilar damage. In fact, there are numbers of ways in which the mischief might arise, and which would be eavily determinable if we were on the pot, but not easy for an absentes to point out.
Dresing for Vines: C. S. If you carefully real our "Fraita under Glass" Calendar in Gardemers" Chronicle for November 30, you will find just the mort of information that you require.
Flora of Dumerirsshire: J. \(K\), You should advertise in our columnt or enquire of some Scote bookteller.

Fruits, Serdling: Jno. Barnett. Your aeedling Apple is fairly good, but not superior to many others in caltivation. The Pear neems to be distinct, and well worth cultivation. We cad find no trace of the name "Auguste Mignaud." Your photograph show that an excellent crop has been borne by the tree, and it has been very skilfully cultivated.
Ivy: L. P. We do not suppose that Ivy or any plant is bsnefited by having its leaves cut off, but tidy gardeners cut the Iry that covers their walls close to the wall almont, so that the foliage shall have a neat fresh green appearance, and not, owing to ite weight, pull the entire plant to the ground, an it otherwise might do.

Kew: F.W. If you will enquire of the Director, you will be furnished with full particalars regarding necessary acquirements, \&c.
Mareet Annoals: \(W\). \(\mathcal{f}\). . Theme are far too numerous for as to give a list in this place, but we will mention a few. Dwarf Nastartiams in good distinct colour, Coreopsis vary, Chrysanthomam Barridgeanum, C. carinatum, C. tricolor, Gjeophila panicalata, Reseda odorata (Mignonette). Ten-week and East Lothian Sbocke, Petunias, Verbenas, Zinnias, Asters, Sweet Sultan, various Globe Amaranth, Balsami, \&cc.

Manure for Ligit Dry Land: J. L. A. Whatever manare is applied ahoald be well-decayed and rich, \(\operatorname{coN}\) and pig-dang answering better than that from the stables alone. If you could pen some sheep on the land, way, from forty to sixty animals, on half-ncre patcher at a time, feeding them with oil-cake, and Swodes, or Tarnipm, they would consolidate an well an enrich it. The drainage-water from the dung-yard abould be asped and distributed over the land in the winter. The land should not be ploughed or dag before it is required to be planted, an much of the fertile propertien of the manure is soon lost in very lighs land; it may, indeed, be adviaable to diatribute the manure in the farrows when planting the tubars. The crop would be improved by dreasing of potash and lime, or superphosphate of lime.
Muscat Grapes: Muscat. We do not know of any variety that is more masky than Mascat of Alex andria. Taere are Mra. Pince, a black Grape, with a good Muscat flavour, and Chasielas Musqué Muacat Dr, Hogg inquired abont is a fine white Frontiguan, raiged by Mr, Pearson, Chilwell.

\section*{W. COOPER, Ltd., NINTH ANNUAL CLEARANCE SALE-continued.}


600 to 753-6 ft. by 3 ft . \(8 \frac{10}{} \mathrm{in}\)."Painted and 4 to 811 - 6 ft . by 4 ft . Painted and Glazed with

812 to 842-Good Sound Lights, 6 ft . by 3 ft .9 in Glaced 21 bz," nearly new, stiles 848-9 Unglazed Litin., original price 10 s .6 d .
43t-8 \(21 \mathrm{tt} .10 \mathrm{in} . ; 1,4 \mathrm{ft} .4 \mathrm{in}\) ft. 10 in . by
\(1,5 \mathrm{ft} .2 \mathrm{in}\). by \(2 \mathrm{ft} .6 \mathrm{in}, 2,5 \mathrm{ft} . \mathrm{by}\)
84 to 9 an_Unglazed Lights, 6 ft. by's feet \(8 \frac{1}{2}\) in.

\section*{Garden Hand-Frames.}

These Erames will be found to be very useful for protecting plants, seeds, slips, and cuttings, during the spring, whicb, if cold so provered, would probably fall victims to the extreme open tops, with glasa cut to sizes and zine clips for glazing same.


\section*{Odd Greanhouses.}

All Houses are Complete as lisi


\section*{POULTRY APPLIANCE DEPARTMERT.}

\author{
Movable Poultry Houses.
}


These houses are pretty in appearance. They are subatantially constructed in seotiona in complete readiaes clity) of ogeller with fatonged and croovel mich boarda aupplied with deor complete with lock, rentilator slide, and painted outside one coat of good oil Pint. Packed and put on rail at the following respective \({ }^{105} \mathrm{~L}_{\mathrm{LO}}\) to \(1083,5 \mathrm{ft}\). long, 4 ft . wide, 6 ft . high. Losi \({ }^{2}\) to 10 in . to eaves

109 high, of to to eaves 8 ft ft . wide, 6 ft .6 in .

939 to \(967-12 \mathrm{in}\). by 12 in .
976 to \(983-14 \mathrm{in}\). by 14 in .
934 to \(998-18 \mathrm{in}\). by 18 in .
999 to \(1015-50 \mathrm{in}\). by 20 in .
1016 to \(1030-22\) in. by 23 in.


Span-Roof Improved Poultry-House.


These Houses are very roomy and well ventilated, and are specially con-
structed so that they may structed so that they may
easily be taken to pieces or easily be taken to pieces or and window at the ends, a flap at the back for easy access to nest-bozes, are aciesed from the ground 2 feet, so as to form a dry run underneath, are made of red deal, painted one with weather-boarding. Usual Sale 1176 to \(118 \mathrm{t}, 5 \mathrm{ft}\). long, 4 ft . Wide, 8 ft . high, Price. \({ }_{5}\) Price \(5 \mathrm{ft}\)..6 in . to eaves
1185 to \(11990,6 \mathrm{ft}\) long, 4 ft . wide, 8 feet high,
 high, 6 ft t. to eares
1212 to 1227 , 9 ft. long, 6 it . wide, 9 ft . high.
6 ft 3 in , to
\(210 \quad 20\)
\(215-3\)
\(\therefore\)

minds. sua and yermin at night, and are proted outsagaint Nind, sil, and yerola night, aid are

Securely packed on rail, at the following prices: Size- 2 ft. wide, 1 ft .10 in . deep, 1 ft . 10 . high at front, 1 ft . Lot. high at beck.
1601 to 1750 ... Usual price, 5s. 6d. each. Sale price, 4s. eavh 6 for \(22 s\). ; 12 for 40 s .; 36 for 2 ² 5 s. 1751 to \(1770 \ldots 3 \mathrm{ft}\), movable wire run, uaual price, 4 . each extrs. Sale price, 28, each.

\section*{Roofing Felt.}

Patent Agphaltic, Rolls 25 yards, 32 in . wide.

Lot.
1771 to 189
189 \} to 1980

\[
\begin{aligned}
& \text { Sale prica } \\
& 3 s_{0} 6 d
\end{aligned}
\]
\[
\begin{aligned}
& \text { 4s. } 6 d . \text { per Roli. } \\
& \text { Better quality, } 5 \text {...... } \\
& \text { Is. } 6 d \\
& \text { is. } 10 d .
\end{aligned}
\]

Gaivanived Corrugated Iron

\section*{Roofing.}

\section*{Lot 1931.}

Bast Quality, Periect S'abs, 27 in. wide.
\begin{tabular}{|c|c|c|c|c|}
\hline & & Usual Price. & & Sule Price. \\
\hline 3 ft. long & ... & 1s. 1 d . & ... & 0s. 10 d \\
\hline 4 ft. fong & ... & 18. 53. & ... & 18. 1 d \\
\hline 5 ft . long & ... & 1s. \(8 d^{\text {d }}\), & ... & 13. 58. \\
\hline 6 ft . long & ... & 1s.11d. & ... & 13. 8 d. \\
\hline \(7 \mathrm{ft.10} \mathrm{\%}\) & ... & 2s. 2 d. & ... & d. \\
\hline 5 ft . long & ... & 23. 6 d. & ... & 28. \(2 d\). \\
\hline \(9 \mathrm{ft}\). & ... & 25. 11 d . & & 2s. 6 d. \\
\hline ft . long & & 3s. 68. & & 2s. 116. \\
\hline
\end{tabular}

Special Quotations for 2 Ton lots.


Lot. No.
 1933 to 1941-1. Suitable for

\section*{1942 to 1918}

1949 to 1956-3. Collies, Re-
trievers, and
Spaniels ...
101. to 1950-3. St. Bernards, Mastiffs, and New-
1857 to 1962.-Threetier Pigeon or Dove-cote, 3 ft .6 in long, 1 ft .9 in . wide. 5 ft .6 in . high, and atands well from the ground. Usual price ta. Sale price, \(£ 110\)
1983 to 1970. - Dove and Pigeon-cote on Pole, with nestimp accommodation for 8 pairs of Bird

\section*{HEATIMG APPARATUS DEPARTMENT.}


\section*{Hyglenic Heater}

Burning Paraffin or Gas without smoke or smell. Taese Heaters are constructed as a means of Heating by Hot Air without the use of hot-water or fires. Its peculiar conatruction economises the heat generated, 80 that there is \(n 0\) waste of heat or fuel. There nothing whet combustion in this stove, and actually everythioy conducive to their health it should be obserred that plants may be had in full bloom throughout the severest winter. This cannot he obtained in stoves of other system. See list for full description


\section*{'Invincible" Hot Water Apparatus.}

MOST EFFICIENT, AND Cheapest IM ExistENCE. Requires nosunkstokehole and no brick setting. Will last all night without attention. Burns house cinders: nothing for fuel next to one can fir it. A child can stoke it. Success guaranteed. No. 1 Boilers only, capable of heating 75 it.

Lot \(2210^{\circ}\) to 2317. Usual price, 23 15s. Sale price, fl \(_{2}\)
Sale prices for complete apparatus:-
Cost of complete apparstus for Greenhouses with 4 -in. pipe. flow and return along one side, cut and fitted, so that if the internal measurement of the Greenhouse is given, the appe which will be appreciated by all for fixing, an advancag acked on rail at the following reapective prices carefully 5 ft . \(3312 \mathrm{~s} .6 d .9\) 12 ft . by 8 ft . ft ; 15 ft , by 10 ft . ft. 20 ft by 10 ft . 8 25 ft . by 10 ft ., e f \% U U Mal Sale

Lot.
318 to 2350 -Sets of Stokine Tools
Price. Price
2318 to 2350 -Sets of Stoking Tools
\(\begin{array}{lll}8 . & d_{0} & s_{0} \\ 3 & 0 & \ldots \\ 2 & 0\end{array}\)
2361-4bout 1 c cwt. of Round Indiarabber Ringe,
2383-About 2 cwt. Square Indiarubber Rings.
for tin. Expansion Joidts, at per lh

\section*{The Ampteur's Ambistavt.}

2963 to 2868.
Considering the number of small Greenhouses that do not require mach more than sufficient heat to keep out the frost, and the numerous applicationa constantly received from purpose, we are induced to place before the public an entirely purpose, we are induced to place before the public an entirely from \(15^{\circ}\) to \(45^{\circ}\) above that outaite, requires no attention, oxcept to see that the oil ressel is lept supplied. No syilled labour it required for fixing, only to slip the rings over pipes, push into sockets, and fill up with either Plaster of Paris, fire. ciay, or any cement. Securely packed on rail as follows:-

No. 4, complete with 24 ft .3 in. piping. Will heat 60 ft
Usual price, £3. Sule price, £2 580 d.
(CONTINCYE ON NEXT PAGE)
W. COOPER, Ltd., Herticultural Providers, 755, OLD KENT ROAD, LONDON, S.E.

\section*{W. COOPER, Ltd., NINTH ANNUAL CLEARANCE SALE-continued.}

The Rapld Propagator.
Taz onty Pizyet Propagator for Raing Playts from Seeds, Slips, or Cuttirge.


This Propagator is the best and cheapest now bofore the pablic, and will be found especially eerviseable to Amateurs and Gardeners who require to strike cutting and raise seed in a short space of time.
One of the Propagators will raise large quantities of plants in the apriog. thus-to a great extent-dispenoing with the neceasity of striking cuttiogt in the autumn; it being well tmonphere so prevalent in this country. This method of propagstion eaves the trouble and annoyance resulting from the loes of so many plants in the winter time, and also makes it unnecsasary to occupy so much space in storing a large number of catting.
These Propagators are composed of an outaide casing, with rutrable sheets of alass on top. The bed or bottom is formed of a tank. in which a constant circulation of Hot Water is lept ap by the Heater (see illustration), the pots being phaged in a bed of cocoanut-fibre refuse, which should be kept moist. It is heated by oil, one pint of which will burn at least 30 hoars. Securely packed (no charge for packing) aot put on rails complete at the following sizes and prices:-

Lot. \(\quad\) Usual Price. Sale Price.
 2393 to 2411-4 ft by 2 ft .

\section*{TIMBER DEPARTMENT.}

SPECIFICATION
Matertals required for Span-roof 100 feet by 18 feet Cucumber-house.

\section*{Lor 2112 to 2431}

Hest red deal, all planed, rabbetted, \&ce., ready for use. Door and Vontilators made.
\[
105 \text { feet } 1 \frac{1}{4} \text { by } 6 \text { Ridge, }
\] 05 feet \(3 \frac{1}{4}\) by 4 Capping. 230 feet 3 by 34 Piato,
4-8 feet \(2 \frac{1}{2}\) by Kna Rafters
120-8 feet ly by Bars.
15 Veu tilatora about 4 feet by 2 feet,
15 Ventilators, Seats about 60 feet.
1 Door and Frame, 6 ft. by 2 ft .6 in
Facked free on rail. Usual price, ef 10s. Sale price, 83108. Lot. 2432 - 98,000 ft. ran Ko. I Sashbar per 2433-137, \(100 \mathrm{ft} .\mathrm{ftun} \mathrm{} .\mathrm{run} \mathrm{Mo} .\mathrm{2} \mathrm{Sanhbar}\), 2131-56,000 ft. run No. 3 Bachbur, per
 1001 in
E10,000 worth of other prepared Timber List. 25 per cent. off to clear.
Lor.
2436

\(243 \mathrm{~s}-1\), by \(\%\) St. 6 in. and Beaded Matchcoand, per equare 2439-750 Squares 6 in. Festher kidge 240-700 Hoards ... .o. per squar 2411-150 Machine Turned Finals, per doz 2442-125 Doz. Casement Stays for opening
 by 2 in ., per 100 feet Usual Sale 38, 0d. 28. Od
34. 9a, 2s. \(9 d\)
68.0d. 3s.6d.

6s. 6d. 4s. 6d

\section*{Urund Sale} Price. Price.
125. 0d. 8s od

7s.6d. 6s. 6d.
7s. 6d 5s. 00 . 48. 0d. 10s. 0d f8. 0x. 3.ed

6s.0d. 3s.0d
1s. 3 1s. 1d.
Spectal Offer to Builders, Timber Merchants, \&cc, \&c.
 \(315-23\) Staidart, or \(2 \frac{1}{3} t_{y}\) per foot, F.O.R. 3 . 11 in., 27 10s. per Btandard, Ex 246-30 standarts, ift. by 11 in of \(\mathbf{8 1} 108\). Re Wharf, or 3\()^{c}\) 244-50 stinderder, F.O.E.

\(2148-20\)
\(2419-80\)

\section*{Planed Extanded Trellis.}

Made of Best Ykllow Deal
Lot. Open. Usual Price. 483 to 2471-12tt. by 21 it. 472 to 2485-12ft. by 24 it. 2486 to \(2495-12 \mathrm{ft}\). by 3 ft . 496 to \(2511--12 \mathrm{ft}\). by 31 ft . 2512 to \(2521-12 f\) t. by 41 t . 2522 to 2531 --124t. by 5ft. 2514 to 2545-12ft. by 8 ft . Trellis, luft by 4ft., open 2s. 8d.

All Timber consigned at the Cheap Timber Rate to all parts of the country.

\section*{SUNDRIES DEPARTMENT.}

Lot.
2548i-Galranised Pes Guards: Usual price per nroes, 40s. ... per dozen, 48.
Sale price
\(30 \%\).

U8. Usual Pri
2548 B -Galvanised Wire Arches, 7ft. by Esch.
2548 C - 41 t . by 1 ft
\(2546 \mathrm{C}-\) Ditto, aitto
2516E-Dit'o, ditto
\(\begin{array}{cl}\text { le Price } \\ \text { Esch. } \\ \text { s. } & \text { d. } \\ 3 & 9 \\ 4 & 6 \\ 5 & 0 \\ 7 & 0\end{array}\)

\section*{Lot. Loam-Surrey.}

2517-Splendid Quality, full of Yellow Fibre
Usual price, 2860 . wer sack: 5 for 123 ; 10 for 208. In Truck Loads, F.O.R., Usual Price, 10s. per ton; Sale price, 88 , per ton.

\section*{Willam Cooper's Goneral Potting Compost}

Lot 2548-Specially Prepared.
Usual price, 2s. 6 ow. per sack; 6 for 13s. 10 for 20 . Sale price, 1s. \(6 d\). per sack; 6 for \(88.6 d\). ; 10 for \(13 \mathrm{~s} 6 d^{\prime}\).

\section*{WIIlam Cooper's Celebrated Chrysanthemum} compoat
2519-Usual price, 3s. per buahel. Sale price, 1s. 6d. per bushel.

\section*{WIUAam Cooper's Propared Compost for Potting}

Lot. Sphotacex Pbepaned.
2550-Usual price, 2s. 6d. per anck: 6 for 13s. 10 for 20 s. Snlo price, 1s. \(6 d\). per sack; 6 for \(88.6 d_{0} ; 10\) for Liliam Cooper's Prepared Compost for Potting Bulbs.
Lot. Spectally Prepared.
2531-Usual price, 23. 6d. per sack; 6 for 13e.; 10 for 20 s. Bale price, 18. 6d. per eack; for 8s. 6d, 10 for

Lot. Leaf Bofl, Beech and Oak, well Decayed. 2552-Usual price. 2s. 84. per sack; 6 for 13s.; 10 for 208

Sale price, 18. \(6 d\). per sack; 6 for \(8 \mathrm{~s} .6 d\); 10 for 13 s .6 .
The Original Celebrated Orchid Peat.
Lot 2553. Alc Rici Brown Pure Brackex Fibre.
SELECTED TURVES, with Dust and Roots taken out. Uaual price, 6s. par sack; 5 tor \(25 s\). ; 10 for \(45 s\). 8ale price, 3s. per sack; 5 for 13s. ; 10 for 25 s.

\section*{Best Brown Fibrous Peat.}

Lot 25st. Fon Hardwood and Stove Plants.
Usual price, 21. 6d, per ancl: 6 for 13s.; 10 for 20s.
sale price, 18. 6d. per sack; 6 for 8s. \(6 d\). : 10 for 13s. \(6 d\). Special quotations for truck-loads, F.O. H.

\section*{Good General Peat}

LOT 2805.
Fon Fmane, 解c.
Usual price, 2 s , per asck; 6 for 10 s ; 10 for 15 s. price, 1s. od, par mace: 6 Ior 8s. 6d.: 10 tot 13s. 6 d . Special quotations for truck loada, F.O.R.
LOT 255.

\section*{Rhododendron Reat.}

Usual price, 2s. par mek; 6 for 10 s .; 10 for 15 s .
Sale price, 1s. 6d. per anck; 6 for 8s. 6d.; 10 for 13s. 84.
Special Offer of Rich Brown Loope Peat. of the very best quality. All waste extracted. LoT 3 357. Heady for use.

Usual price, 2s. per sack, 108 ; 10 for 15 s.
sale price, 88.6 pecial quotations for truck loady, F.O.B.

\section*{Willam Cooper's Bunshade.}

Supersedies all other preparations of the kind.
LoT 2558.
The cheapest, most efficient, and convenient preparation for Shading Greenhouses, Conservatories, Glas Roofs, and Windows of all desariptions. Is applied cold-an enormous Maviage over preparations requiring to be used while hot fifect Ised either inside or outside, and producas a pleaniog when desirnd by rubbing orer , ith can bruoh whilst it is wet Made in rarious colours-White, Pale Blae, and Pale Green.


\section*{Willam Cooper's General Fertilser.}

For Florists, Garderers, and Amateuss.

\section*{Lot 2559.}

This hith-class manure is strongly recommended for all kinds of Fiowers, Yruit Trees, and Vegetables, and will be found invaliwble, botin for importing and increasing the produce.

Suitable for all crops: Potatos. Kitchon Garoun Produce, Vine, Fruit Trees, Pot Plants, \&c., dec.
Usual price-tins, 4 d.; 7 lb . bage, \(1 \mathrm{s}. ; 14 \mathrm{lb}\). baga, 2 a
 8liver Sand,
Lot. (Cohrse ob Fine.)
Special offer-4-ton wruck on rail, at pit loose. 20 s .

\section*{Best Cocos Wut Fibre Refues}

Lot. (Fresi hxd Clean.)
2561-9d. per sack; 10 sacke, 7s.; 15 sacke, 1 s.; 20 sscks, 123. 6 d.; 30 sacks, 183. : sacks included. Trus. loose. free on rail over 2 tons, 3 ' s 。
Moistery in heat. Holds heat in winter. Invaluable for potting, planting, forcing, decorating, and ueed on Atrawberrybeds is preferable to straw, keeping the fruit clear from grit, and at the eame nouriohing the plants. For lighteniog heavy sons it is particularly useru, aud when the soin is ren destroyed by its use -
Lot 2517-300 Taganrog mata, pearly new; usual price, \({ }^{28}\) each ; sale price, 1s. each.

\section*{RUSTIC DEPARTMENT.}

Eandsome Rustic summer-house.
Lot 2578-Made for Exhibition purposes, about 10 ft. square, and 10 feet high, complete, with Seats, Table, Curtairs. \&c.: erected in our \(\mathbf{8 n o w}\)-ground.

Usual price, £100. Sale price, 230.
Two Pleces of Rustic Fence.
Lot 2572 -Three pieces Rustic F'ence, 1, 8 tt. by 3 !t. ; 1, Att. by 3ft. 3m. ; 1, 8 ft . by 2 ft .

Usual price, 24. Sale price, el.

\section*{Rustic Summer House.}

Lot 2580 (As No. 116 in List).
oft. by 5 ft . 6 in . Usual price, \&7. Sale price, \&5
Rustic Summer House
Lot 2581. (4s No. 11 ' in List).
6 ft. by 5it. 6in. Usual price, \&Y. Sale price, 23 10s.
Rustic Summer House.
Lot 2583. (As No. 120 in List).
1aft. by 5ft. U̇isul price, ex2. Sale price, 214.
Rustic Summer House.
Lot 2583. (As No, 121 in List).
oft. by 3 ft. 6 in . Usual price, \(245 \%\) Sale price, e3.


\section*{Iron Buildings}

Wooden framework covered with Corragated Iron, atitable tor Gtoreroom or Workhop. Made ia Sections.

\section*{Lot. 103 ft - by 8 ft . complete}
\(2804-14 \mathrm{ft} ., 10 \mathrm{ft}\).
\(2805-18 \mathrm{ft} ., 12 \mathrm{ft}\).
(CONTINUED ON NEXT PAGE.)

\section*{W. COOPER, Ltd., NINTH ANNUAL CLEARANCE SALE-continued.}


Wood Framework covered whth Corrugated Iron.
s \(015-14 \mathrm{ft}\). by 10 ft .
\(2110-18 \mathrm{fc}\). by 12 fr .
\(2118-41 \mathrm{ft}\). by 20 ft
8.18a-Span Bocf Corrugated Irom

Houre, with Floor, Door, and
Window, 12 ft . by 8 ft .

\section*{Piggeries.}

Constructed of Galvanised Corrugated Iron, with timber
uprights. Cheap, durable, and eapily removed.


\section*{Chapel or Misaion Eall.}

A Handsome Building with Organ Chamber, Vestry and Porch complete; deat in deeign, and cheap. Ventilation is here supplied through the upper portion of Windows at sides, bing made to open and shut; also Ventilatore in Roof. A Circular Window huug to \(s\) wiog in each gable end creates a
through circulation of air.
Everything complete. Ready for erecting, Match Lising,

 Iron Bicycle or Tricycio Houses.
 GLASS DEPARTMENT.


\section*{NUREERY AND SEED DEPARTMENT.}

LOLZOWING GOODS WILL BE CABEFULY PaCEED
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Mr. Arthur Prck, for the last three yeara General Poreman, Woolveratone Park Gardens, as Gardener to W. F. PAwl Eqq., Orwall Lodge, Ipswich.
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Mr. Stephen Gitbert, late Foreman at Trent Park, ueder Mr. Lees, as Head Gardener to Mrs. Llewellin, Baglan Mrill, Briton Ferry, South Wales.
Mr. JoHn McDonsli, formerly Gardener at Brooke House, Fleet, Hants, as Head Gardener to Lient.Col. Counteray BRUCE, at the same place.
Mr. A. E. Praoh, fur the past four years Foreman in the gardens of Sir H. F. DE Trafford, Bart., Trafford Park. Manchester, succeeds Mr. J. ADSHFAD as Head in the above gardens.
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CLERK, COUNTERMAN, or BRANCH Sundries, Corn Trade, knowledg of perience in Seeds, Bulbs, sundries, Corn Trade, knowledge of Plants, Book-keeping, E. G., 41, Wellington Street, Strand, W.C.

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HE MOST IMPORTANT LESSON Ewulapius tried to impress upon his puplls was, that the chief trouble afficting humanity Wan due to impurities of the
blood. All disorders may be triood to this fact, for unless the Blood. All disorders may bo triood to thin fact, for unless the
cource of life is free from disease-germs, it canot have that atrength which is necessary for good health. HOLLO AX PILLS are composed of the moost precious herbs and soothing balamia which Mother karth can orrer to her children, thereis craved by the aystem. It is no vain boant to asay that this it the most wonderful discovery made in the annals of medical ccience; they will cure or relieve all dieaases.


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No.
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\section*{LLUBTRATION8.}

\section*{Cung Italia}

Ciphatotaxus pedunculatus and C. drupacea
Liddemania trilobs
Luturtium. Liliput
town garden, a
In consequence of the alteration of the hour of going to Press, consequent on the large increase in the circulation, it is imperative that all Copy for Advertisements should be received \(B Y\) FIRST POST THURSDAY MORNING at the latest.

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\(A\)
\(\mathrm{SH}, 3\) to \(4 \mathrm{ft} ., 208\). per 1000. ELM (Wyoh), 12 to \(24 \mathrm{ft}_{0}, 16 \mathrm{~s} .8 \mathrm{8PRUCE}\) FRR, 9 to 10 in , \(10 \mathrm{~s} ; 18\) to
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per 100, sus. per \(10 v 0\); Scarlet Duc \(\overline{\text { Fan }}\) Thol Tulip \(\%\), vivid per 100, que. per love; Scariet Duc Van Thol Tulipt, Vivid Siagle Amateur Florists' Tulips, mixed colours, refined and beantiful varietiou, \(48,8 d\). per 100, 4Us. per 10u0. Orders above 10s. carriage paid.
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\section*{SALES by AUCTION,}

\section*{GREAT CLEARANCE SALE OF} 122.000 FRUIT TREES \& BUSHES

\section*{Is FIXED for WEDNESDAY, DEC. 18}
at hale past 11 o'Clock punctual, at Perry Hill. Cliffe, near Rochester, adjoining Clifte station, S.E.R. (the last for the ser son), by order of Mr. W Horne, consisting of 1.200 Standard a poles and Pears, 500 Standard Victorias, and 300 Standard
 Baldwins, Black Currants. 2.00 , Red, 12,00 Gooseberriea, Baldwink, Black Currants.
Crown Kobar Lancashire Lads, Golden Rourh White Kalle, Whitesmilh and Whiulama's Industry 5,000 Carter's RaspWerries, 35,000 Fastu Hs, 35,000 Norwich Wonder, 2,000 Semper Fidel's. 50,000 Sir Joseph Paxton and Noble, 15 Oon Royal
Sovareign, 15,000 Asparagus, 100000 Myatt'd Offenham Cabluge, 100.00 D Drumbead. 50.00 Red Pickling. 100,00 Ralloon Cos Lettuce, 2,500 Brambling, and 10000 Hast Kent
Petham Golding Hop Sets. Mr. Horne will lift and put on Pail all lotatafter the sale, free of charge.
IESSRS. PROTHEROE AND MORRIS, special attention to this important Clearance Sale. It is seldom an opportunity offers ifself in maeting with such new linde, and in sucb large quantities for Martet Growing. All
are well-grown and clean. Growors and otber- intereated, are invited to inspect the Stock and atteod the Sale.

\section*{Chestarfield.}
sALE of the LeASE of the NURSERY and GLASS ERECTIONS. in one lot as a going concern, and the sTOCK IN

MESSRS. PROTHEROE AND MORKIS, in conjunction with Mesurs. BYRON AND RAMSLEY, are instrucred by the Chestertield Narseries Compang, Limited,
to SELL by AUCTION, on the Premises, The Westield Nurseriee, Ashate Road, Chesterfield, on WEDNESDAY and THURSDAY NFXT. Dec. 18 \& 19 , at \(110^{\circ}\) Clock precisely each dag, the INTEREST IN THE PROPERTY Ynown ag THE WEsTFIELD NURSERIES, comprising 113 Acres of Land, 18
Greenhones, Heating Apparatus, 13 Brick Pits with Lighte, Greenhouses, Heating Apparatus, 11 Brick Pits with Lights, Stabling, \&ce. Immediately following will be offered in suitin variety; 10,100 Geraniums. 500 Asparagus plumosus and in variety; 1,100 Geraniums. 300 Asparagus plumosus and 200 Azaleas and Camellias, 660 Cannas, several thousands of Herbacsous Plants, a special feature at these Nurseries, and including a fine collection of Peeonies; 4000 Carnations, best varieties ; Dahlias, Ac.; a large quantity of Foreat Trees,
Conifers, 30.000 Prait Trees, Apples, Peare. Plums, Cherries, Conifers. 30.000 Frait Trees, Apples, Peare. Plums, Cherries,
nad Respberries, sovernl huadreds of Dwarl Rous, Myrobella nod Rappberries, sovern!
May now be viewed. Catalogues may be had on the Premises; of Measrs. BYRON AND RA MSLRY. S. Low Pavement. ChesChesterfitd; of the principal Hotels in the neighbourbo ds and of Mesors. PROT I WROE AND MORRIS, 67 and 68, Cheappide, London, E.C.

\section*{Thursdis Nert.}

220 AZALEA MOLLI*, 100 A. INDICA, B0 CAMELLIAS, 40 RHODODENDRONB, and 250 SPIREEA JAPONICA. from Belginm; 620 Standard, Half-Standard, and Dwarf ROSES: 300 lots of DUTCH BULBS. CARNATIONS, BEGONIAS, choice PERENNIALS, CALOCHORTI, Hardy
grown Lilles, \&c

\(\mathrm{I}^{\mathrm{E}}\)ESSRS. PROTHEROE AND MORRIS will §KLL the above by AUCTION, at their Central Sale
and Rooms, 67 and 88, Cheapside, Londo
NEXT', December 19, at 12 a'Clock. December 19, at 12 o clock.
On view morning of Sale, and Catalogues had.
Fy Onder OFiday Nezt.
Ander OF Mr, P. MCARTHUR.
OATtLEYA MOSSIEE, VARIETY CUVAENSIS.
This was found on cool high moountains at an altitude of 1950 feet. Every prant was collected, and is now offered; Catalogue for description.
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oncidium papilio majus, perfect specimens.
by Order of Messes. W. L. Lewis and Co.
SOPHRONITIS GRANDIFLORA, in magaificent order.
ONCIDIUM CRLSPUM GRANDIFLORUM, in extra fine
LELIA AUTUMNALIS ALBA, ppeciaily eelected varieties
from the private gardens of a Moxioan gentleman. Bulbs
and flower-spiles of enormous sizo. Dried flowers will be and flower-spiles of enormous size. Dried flowers will be
ONCIDIUM MARSHALLLIANUM, a grand lot, in magnificent order, of this scarce and charming species.
SOPGRONITIS \(\times\) LEELIA HYBRIOS (supposed), 15 plants,
supposed to be nazural Hibrids.
Together with 200 lots of IMPORTED and ESTABLISGED
ORCAIDS ORCHIDS (another property), ORCHIDS in FLOWER and BUD, \&c.

\(\mathrm{M}^{1}\)ESSRS. PROTHEROE AND MORRIS will
 Decanber 20 , at halt-p.st 12 , 'Clock.


\section*{WEDNESDAY NEXT.}

Cholce named standard Roses, Including many popular kinds.
A farther portion of a surplus stock of woll-grown
OANAMENTAL TEEES and SHRUBS, from an English ORNAMA.
Pyramid and Dwarf-trained Fruit Treea, to name. 40,000 Best Berlin Lily of the Valleg Crowas, in cases as receiven;
LILIUMM HARRII.
A Collection of woll-grown Border Plants, Inciudivg Choice carnailions, pinks, PICOTRES, IRI \(M^{R}\) R. J. C. STEVENS will SELL the above by AUCTION, at his Great Rooms, 38, King December 18, at half-past 12 o'Clock precisely.
Oa view morning of Sale and Catalogues had.

\section*{Thursday Next.}

By Order of Messhs, Linden, Brussels. GREAT SALE OF
NEW, RARE, and POPULAR ORCHIDS,
established Plants, in teee Finest Condition, Yoluding-
Bulbophyllum reticulatum


MR. J. C. STEVENS will SELL the above by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on THU
at halt-pat 12 o'Cloek precisely. On view morning of Sale, and Catalogues had. Thursday Next.
By order of Messrs. W. L. Lewis \& Co.. Southgate SOPHRONITIS GRANDIFLORA, including some fine masses, ONCIDIUM CRISPUM GRANDIFLORUM, in splendid ONCIDIUM MARSHALLIANUM, now very scarce in its
native habitat. The plants offered are unusually fiae. M ESSRS. J. C. STEVENS will incl ude the the above in his SALE by Auction, at his Great Ronma. 38, King street. Covent Garden, on THURSDAY NEXT, December 19.

On view morning of Sale, and Catalogues had.

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TO HORTIOULTURISTS.
FOR SALE by PUBLIC AUCTION, within the "Black Bull" Inn, Johnstone, on SATURDAY, privately), ROSEBANK HOUSE and GROUND. privately), ROSEBANK HOUSE and GROUND.
This property is fitted for the Cultivation of
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Uppet price of house and ground 21300 . In addition to the
price the Purchaser would have to take over and pay for the price the Purchaser would have to take over and pay for the
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 at \(£ 11\) ground rent. for \(\$ A L E\), price \(£ 50\).
Aoply on the premisee, Late Hillier's Nursery Reservoir
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ALMS, CORYPHAS and LATANIAS from Stores, 10s. per 100. Cash or exchange for Carnationa, Cuttings, or Bedding Geraniums.
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In 33-size pote, 50 s . per 100 ; out of pota, 40 s . per 100, free on J. HUBERT GROGAN AND CO., Railway Nurseries, Worthing.

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Cheaper by the 1000 .
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Wille TAYLEB，Osborn Nu＇sery，Hampton，Middlesex，
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BULBOPHYLLUM RETICULATUM DISCIFLORUM
ANCEPS
CONGOENSE
CIRRHOPETALUM MASTERSIANUM MEDUSA
PULCHRUM
VAGINATUM
", LICHTENSTEINI
CATASETUM BARBATUM SPINOSUM
OERSTEDTI
PUNCTATUM
CLAESIANUM
COLARE
COMOSUM
CORNUTUM
TENEBROSUM
STUPENDUM
SPLENDENS LINDENI
ALBO-MACULATUM AUREO-MACULATUM
AURANTIACUM
AUREUM
CHRYSOTOXUM
DELICIOSUM
LUTEO-PURPUREUM CITROSMUM PUNCTATUM
MORMODES COGNAUXI
ROLFEANA
NAN゙ODES MANTINI
MATHEWSI
LOC̋KHARDTIA LUNIFERA
GALEANDRA CLAESIANA
CATTLEYA REX
MOSSI \(x\) IGNEA
JUVENELIS
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THE

\section*{Gardeners Chronidle.}

\author{
SATURDAY, DECEMBER 14, 1895.
}

\section*{ITALIAN CANNAS.}

THE group of Cannas called in France of medium height, with numerous large flowers, and in oolouring as brilliant as varied. We have witnessed the introductions of these fine plants since 1859 , when M. Année first obtained crosses at Passy. Before that time Cannas were hardly known for summer bedding, except in botanic gardens. At the Muséum, there was planted every year a series of the following speoies:-Cannas discolor, edulis, glauca, indioa, gigantea, flaccida, and Warscewiczii. Then oame the sorts which Bouche desoribed in the Berlin Botanic Garden; those whioh Roscoe had figured in his Scitamineous Plants, and certain others which Loddiges had depioted in the Botanical Cabinet, and whioh were hardly seen save in some English amstear oollections.
To M. Annee, then, may be attributed the first important results in the artificial fertilisation of Cannas. The flowers which he obtained were varied, bat the plants were often too large. Soon the principal object of the growers, among whom were M. Lierval, M. Bihorel and other nurserymen, was to develop plants with large bighlycoloured foliage. Seedlings raised by M. Crozy, of Lyons, some time after, proved quite a revelation. He produced a race of Cannas with large and fine flowers; among these the variety Madame Crozy was for some time the most beantifal known. Subsequently other raisers, foremost among whom were MM. Vilmorin at Anibes, obtained some very handsome varieties.
But the olass of which we wish now to speak, and which we may call Italian Cannas, are a great adranoe upon any others yet obtained. It is to MM. Dammann et Cie, nurserymen, of San Giovanni a Teduccio, near Naples, that we owe these splendid plants. One of the partners in this firm, M. Sprenger, said that by always working on the same lines, and always interbreeding the large-flowered varieties, nothing would be obtained more remarkable than the varieties already in existence. He, therefore, sought to infuse new blood into these hybrids, and this was introduced by employing Canna flaccida. This species, originating in the sonthern United States, is of medium height, 3 to \(4 \frac{4}{2}\) feet, and bears large fiowers, one petal in which is especially developed.
The firut triale made by M , Sprenger were unsuccessfal. Bat in \(1892-93\) he obtained by fertilining Canna Madame Crozy with the pollen of a fine variety of C. flaceida, a aplendid plant, which he named Italia (fig. I14). Apart from the unasaal nize of the flowera and their beattiful golden-vermilion colour, the plant has this pecaliarity, that the general
form of it in flattened，resembling an expanded Cattleya［Or a Japanese Iriv．Ed．］
The similarity to Cattleya is increased by one of the petals being horn－shaped，like a lip．Here is the description of Canna Italis（see fig．114），taken from living specimens：－

Plant vigorous，tufted，robust，very floriferous，height from 150 to 2 weitres（ 4 委 to 64 feet），to the anmmit of the apikes，ateme dark green，atrong，erect，leaves uni－ form dark blnish－green，erect or a litt！e spreading，in texture very firm and vellum－like，the petiole deeply channelled，amplexicaul prolonged into a very atout and rounded midrib，blade oval，pointed at the sum－ mit，decarrent at the base，in length 0 m .60 by 025 m ． （ 2 feet），in width 10 inches；deeply channelled in the middle，veins acutangular，alighty raised and paler in colour，truseen 1 m ．（ 33 feet）in height，often rather ansular，triquetrons at the top， standing erect in the middle of maller floral leaves and very long convolute shenth ；opike erect，a foot or more high，floral favcicles distant，sensile， bifloroas，having at the base one common bract，very brosd，short，obtuse，membranous violet－brown；the two bracte of each flower longer， 0 m .015 （ball an iach），oval，epoon－shaped，obtuse，erect，violet． Opary oblong，wrinkled，green and violet，with three rounded corners sarmounted by a calyz with three erect concave sepalr，separated as far au the bane， equitant，oblong－oval，obtuse，in colouring red－brown， rather plum－coloured，in length 0 m .020 （three－ quarters of an inch），and \(0 \mathrm{n}, 010\)（three－eighth of an inch）in width．Perianth very large，erect， very widely expanded，two of the outer division lanceolate，pointed，spoon－shaped，in length 0 m .06 m ， to 0 m .08 （a fifth of an inch），in breadth 0 m .20 to \(0 \mathrm{~m}, 025\)（three－tenths of an inch）， in colour dull yellowieh－red，atreaked with much dather brownish－red linea．The third division narrower， 0 m .014 to 0 m .015 （half an inch to five－ ninthe of an incb），more pointed，and yellower at the tip；interior lobe nearly equal，obovate，obtane， ontire， 10 to 14 cent．（ 3 录 to 5 多 inches）long；in width 0 m .045 to \(0 \mathrm{~m}, 060\)（three－twentiethe of an inch to a quarter of an inch）；two are folded one over the other，and opposed to the third．The nurface of all three is flat，and the upper part widely expanded，so that it somewhat resembles a Cattleya flower．＊The ground colour is a beautiful orange－red，heightened with vermilion over three－fourths of the surface，and prolonged into oval atreaky and apots on a wide golden－yellow margin．The fourth lobe is elliptic，of the same width，twisted，the edgen approximate an in the lip of a Cattleya，deeply bilobed at the top， waved，sometime somewhat laciniste，of a beautiful orange－vermilion colour，bordered with gold，with a large central and bailary channel，ahaded with parple on a dark ground；ataminiferoul lobe，a little nmaller，hatchet－shaped，dark vermilion，the edge gilded and atreaked with red，stamen linear， arched，inserted laterally towards the middle of the right side，yellow at the bave， 0 m .0 .15 （half an inch）long，piatillary lobe narrow，flattened，at the unmmit obliquely flattened into a scimitar－like form， the colour golden－yellow and dark vermilion－red．

It was in the aummer of 1893 that among a thounand seedlings，this variety，Italin，flowered with snother bearing yellow flower shaded with purple， and named Auntria．Thil latter variety may be likened to a large Talip or jellow Lily placed on the top of truses which emerge from beautiful green foliage．M．Sprenger continued to raise seedlinge， and the rearation will not be long in appearing．For example，in the eummer of 1894 ，he nucceeded in llowaring some splendid varieties，among which we note the following：－

Atalanta．－Lenves green，bordered with red，very lange clear vearlet fowers，or blood－coloured with fame－red centres．

Aneriou，－Leave dull red，atreaked with greenish bronze，quite ditinet，very brilliant，very large cap－ minw－red flowern，partly streaked चith pale yellow． A eplendid plapt．

\footnotetext{
＊For thid macou in Italy the nacme of Orehid－fiowered
}

Burgundia．－Leaven glaucous，mall，with brown margins，large golden－yellow flowers，interior petala scarlet，the other red，spotted．
Allemaniana．－Leaves very large，like those of a Musa．Flowers，the largent of the clans，carmine－ red，with a wide golden－yellow border，potted with scarlet beneath．
Twelve other varietien raised from seed in 1894 to 1895 gave still other new varietien and colours not hitherto seen．They are not yet named．We are glad to give our reader these dercriptions thus early， with illustration taken from photograph of a plant of Canna Italia which I flowered thin year at Lacroix，and which are exact as to appearance and dimentions．Ed．Andrb．［We are indebted to the pablisher of the Revus Horticole for the use of the woodcuts illustrating this article by the accomplished Editor of that journal．］
of December 22．The havoc it wrought about Brad－ ford will cause it to be remembered a long time． Mr．Charles Harding，in a paper describing the phe－ nomenon，said the storm was one of exceptional severity，especially over the northern portion of Eagland and Ireland，and in the south of Scotland． The greateat violence of the wind occurred at Fleet－ wood at about 9 A．m．，and for four hourn the velocity exceeded that of any wind recorded in the Britith Iales．The Board of Trade Returns show that 167 lives were lost daring the gale，and the destruc－ tion of property was enormous．Within a day or two of the close of the year 1894，temperature for the preceding three month had been much above average，and farmert profited by the mildneas，for the after－grass was plentiful，and the cattle could be turned ont almost every day．But after that，right away into March，more than two months，the tem－


Fig．114．－canga italia：to show habit． （One－twentieth of the natural size．）

\section*{A SUMMARY OF THE WEATHER OF THE NATURAL YEAR．}

Trim following obvervatione were commenced at the autumnal equinox in 1894，and brought to an end with the similar event in 1895，the locality being Bradford．The woather during the latter part of September and all October in 1894 was unre－ markable．The treen shed their leavea naturally through decay，and not from violence of the weather． The first frost occurred October 22．On November 12 the barometer wa：very low，but as the weather at Bradford scarcely corresponded to so low a reading， one natarally looked for the cause nomewhat farther away．In South Waleu and the mouth－weat of Bagland the rain fell in torrente，canving the rivers rapidly to rise，and flood the adjacent country． Much damage to property and eome lons of life way the consequence．For aome days after，storms and uhipwreck farnithed the newnpapers with senational matter．The next event was the great wind－atorm
perature was much below average．Perhaps the weather of January，1895，would only be rightly described in anying it wae about the wornt and most trying to man and beat that ever wae．There were heavy falln of now，which were drifted and piled up in all sort of objectionable places，making it necen－ uary for much labour with the ahovel，in order that passengers could get about at all．Daring the day－ time it frequently thawed and rained，and no the roade became aluahy and wet．Frost an frequeatly fol－ lowed at night，when the roads became as alippery as glase，and very dangerous to travel．With all this， and the intense cold，besides hardly any anathine， and much mist，it will be seen what hae been waid about January can scarcely be regarded as too bad． The firat two weeke of February were even colder， and ss the severity of the weather had been pro－ loaged，the affering amongat the people became acate．On Febraary 8，temperature fell to about zero all round Bradford．From the middle of Febranry there wat a condition of thing nomewhat
more bearable, but to the second week of March Natare was bound hard and fast with frost. Oa Wednesday night, March 13, there was a fine display of streamers. The phenomenon was een at the ume time by different persons in localities right across the country, from Scarborough to the Isle of Man. Afterward the temperature was decidedly warmer, but it would be difficult to prove that one circumstance had anything to do with the other.
Sanday, March 17, way the first epring day. Oa Sanday, March 24, it was very rough, rain and wind reeping everyone within doorm, In the midlande,
winter to aummer. The remainder of May and all Juae whe generally suitable for vegetation; notwithatandiag, scarcely any bloom was borne by the Thorn, Byech, Sjeamore, Ok , or other forest trees Oa Jane 14, the hay-harveat commeaced. The crop was light, bat of good quality. The fore part of July was marked with frequent thander-atorms, the lightning at times being particalarly vivid, and almost continuous. The latter part of Jaly, all Aagust, and the bagianing of September might be deacribed as growing weather, for generally it was warm and humid, with rather frequent thunder-


Fig. 115.-canna italia: single flower, natural size. (see p. 704.)
the wind wan mach atronger than about here, and caused there great damage and low of life. On Tharday night, April 4, between 8.30 and 10, there war a halo around the moon; at the same time it Wa observed by a gentleman who was travelling between Liverpool and Southport. Henc 3 , the caue of halon must be at a great altitude, or it could not have been aeen at Bradford and Southport at the ame time. The lat week of April and the firat two Week of May, the weather anited vegetation exactly. It wat commonly taid that it had been made on parpone for the farmers, and certainly ite effect was mouddon as to appear magical. The trees in the short time nam ad turned in their aapect from that of
atorms and rain. The remainder of September wan exerptionally bright, hot, and dry, witing the ripening and harveating of all kinds of vegetation.
The floods of November, the winde of December and March, the inclemency of January, and the low temporature of February, are the extraordinary circamatances of the weather of the natural jear. Excepting them, there has been a near approach to a meteorological arerage duriag the time under consideration.
The foliage of forest trees has not suffered this year from any ill effect which mometimen arise from wind, front, hail, or insecta. Of the thirty-fire forest treen, whone girth I regularly measare,
eighteen of them have increased more than they did in 1894, eight of them lena, whilat nine of them have grown alike in both years. The increase of all the thirty-five treen this year is 354 fractione of an inch; lat year it was 326 (the fractions are sixteenthe).
The Apple crop hat been exceptionally good. The cereal cropa are eatimated to be under average in quantity, but in quality they compare farourably with those of other years. John Clayton, Bradford, November, 1895

\section*{Orohid Notes and Gleanimg8.}

\section*{A CURIOUS CATTLEYA.}

Messas. Sander aend un one of the mont remarkable semi-double Cattleyas we have yet met with. The part of the flower are fifteen in number, vie., three espala, three outer petals, three inner petala, a column of three atamena, and an ovary with three compartments. The arrangement of the part is even more carione, tha outermont row of three sepala is normal in position and form, the sacceeding row of three petals is not alternste with the sepels, but moperponed to them (radial chorisis). These three petals hava the form of the ordinary lateral petals. The inner row of petale likewise is superposed to the preceding row; one of them, the posterior one, is concreacent with the column, and has the form of an ordinary lateral petal, the other two anterior or antero-latersl are lip-like. Within thim inner row of petals is the column bearing one median or posterior anther, and two lateral oner. Of the three compartmente of the ovary, two are poaterior, one anterior. The arrangement may be underatood from the annexed diagram, where \(x\) ie the sxis of the plant, \(S\) the sepals, \(P\) P the two rows of petale, A the outermost anther, \(a\) a the two anther of the inner row, whilat the central triangle sepresent the ovary with its median carpel in front, 0 , posite the aingle anther A, instead of in a line with it as in Orchide generally:-
\[
M . T . M
\]

\section*{Orchidy at Oswald House, Edinburgh,}

In the Orchid-houser of J. Bachanan, E:q., the number of plants in flower at this neason is small, but everal interesting pecies were noted on the cccasion of a recent visit. In one house were noted fine plants of Cymbidium giganteum and Cymbidium Lowianam shrowing up atrong flower-apiken; and a plant of C. ainense, a much leas-conspicuous plant, with purple and brown coloured flowers, which are fragrant. There were also the odorons Dendrobium heterocarpam, or more properly called D. aureum; and the now popular D. Phalmaopric, in aeveral shade of colour, and of variou sizas, and these jadging by the number of plant observed, are the owner' favourites. Large baskets of Coe'oajne Massangeana were in laxariant health, with mome fow flower-apikes on plants in the cooler houses. C. barbata, with its coriaceous bold foliage and areet spiken of flowera, promite a good dirplay. Pianta of this Ansm apecies were doing well in the inter-mediate-hoase. The gem of this geno in flower wat C. Gardnerisuam, a native of the Khania Hills, discovered in 1837, but atill anything bat common. The peado-balbe are club-thaped, with broadish leaves, and the racemen of flowera of almont tranapareat whiteness, with just a slightly lemon-coloured blotch on the lip, have an attractive appearance. Tubfuls of C. cristats, a yard in diameter, were nearing the flowering atage, and the varieties alba and - her will moon give an abandant crop of bloom. Lelia ancepw, and ite varieties Guuldiana, Scottians, and others were numerounly reprenented. A fine plakit
of Lycaste Stinneri alba throwing up ite flowern appeared in eplendid condition. Masdevallia tovarenais and M. bella were vary bright. The latter plant is said by Mr. Wood, the gardener, to be almort perpetaally in flower. A verylarge apecimen of Odontoglossum coronariam, sometimen called O . brevifolium, was freely covering a large raft nearly 3 feet long by 2 feet wide. This plant hav not flowered in these garden as yet, but efforts are being made to induce it to do so. Many other apecies of Olontoglossum were showing their flower-mpikes; a good plant of O. Edwardi, carsying an onormous branched spike; aeveral Oacidiame, Cypripediams, and othera were in bloom, and the honse presented an interesting appearance. \(H\).

BANANAS AT HAMPTON.
There ara few nobler leaf plant of a tropical nature grown ander glase here, and sometimes with fine effect out-djors in warm positions, than are Musan. \(U_{i}^{i}\) all vegetation, these plants give some of the most luxuriant and the mont rapid growth. Pianted as sorted sackers of small dimensions in a heater house, in a few months they have tecome grand epeciment, having masive trank and magnificant foliage, and thus are most speedily noble decorative objects of vegetable production. It is not usually the case that product of this description are found in gardens of limited natare, and where the glass area is comparatively restricted. There are alway fonnd, however, exceptions to every rule, and there in a mont admirable illuatration of this fact to be now seen in a house attached to the residence of H. O. O'Hagan, Esq., Hampton Coart, Middlesex. That there is here a good deal of glans relative to the dimentions of the place, there is no doubt; but much of it is devoted to Peaches, Apricote, Vinet, \&c. The garden lie close to the Thames, and rather too much so to be pleanant, when the river is exceptionally high. Lat winter when the great Thames floods prevailed, the higher portion of the ground were immersed 3 feet, and the lower parta from 6 feet to 8 feet in water, which poured through the gardens and rouad the houses in the most farious fashion; of course in such cane, everything had to bo left to ite fate, and a rough fate it was to many. Ose of the oddest shinge in the Pesch-honee was that all main stems under water suffered nothing, but all the lateral and young hhoote were killed, whilat above the water-line noae suffered. Whether becanse thas aaturated or beciuse of the exclusion of air, the immersed young wood died, in a point which may be left for plant-phyaiologiate to decide. It will not be a matter for aurprise, as was mentioned shortly after in these pages, to learn that this flood having risen to a height of 4 feet in the house devoted to Bananas at that time, grad plante, and carrying huge cluctera of frait, were killed almont outright. So complete was the work of destraction, that out of ten fise specimen not a single sucker cunld be found alive a week or two after the fluod had abated. The gardener, M- Lat, however, did detach eome dormant knobs or aucker bates from the bottom of the atem: after they were taken from the soil, and these being placed in pote singly and atood in warmth, presently pushed growth, so that in March, when the house was again prepared for the plants, those about 18 inches in heightwere pat out in the beds, and another good atart made. The result may be aeen to-dsy by anyone interested in Banaia culture for fruit prodaction, who may care to look in at River Houv. Tbe house devoted to thene plants is an erect apsu, 21 feet by 16 feet, and is some 11 feet in height. There is a broad centre walk, and on either side a bed enclosed in 9 -inch walla, the inner width being 4 feet. These beds are 2 feet in depth. The heatiag force in obtained from a double row of pipes that ran round batween the inner walls of the beds and the outer wall of the house, and also from other pipes sunk beneath the iron grating which floor the main walk of the house. Ai the bottom of each bed
there is some 9 inches of rubble for drainage, this materially reducing the woil area. On that are laid firat rough pieces of turf, and then the compost. Thia is a material of very innocent nature, being chiefly old pot-soil from Chryannthemume, \&c., with which is mized a moderate quantity of old hot-bed manure, and rather more of turf edginge or trimmingn. \(O\) it the atereotyped turfy loam in ite virgin atate there is none. Nearly filled to the level of the walle, this comporetetle down materially during the seavon, so that now ite level is some 3 or 4 inches below the wall tops. Four plants only are growing on either side this year; even of themare carrying hage claters of fruit, the other being planted later, will not frait jast yet. Thene clastern are from the tips of the first whorl of pode to the point of their floreacence, fully 5 feet long, but the actual length of the frait claster is 3 feet. The fruits will commence to ripen in Fobraary, and those now set will occapy some two month before they are all ripe. The present average temperature is \(60^{\circ}\), but in the summer it is, of course, much higher. There are no mulchings, and no atrong ammoniacal mells that are so offensive in close plant and frait-hoases. No artificial manure of any tort in employed; the only description of feeding otherwise than the ail and plenty of water furnith is found in occasional waterings with the contents of a cesspool. The plants now run to about 10 feet to the top of the leafage, which is of very noble character, and reaches 6 feet in length, and of proportional width. The stem of the plants close to the ground are generally 3 feet in circumference. The variety is Mana Cavendishii. Could Mr. Last but exhibit one or two clasters of these grand fruits, when matared, at the Drill Hall, no doubt he would receive a high award. It seems a pity that because auch cannot well bs the case, that some honour may not be paid to auch aplendid culture as this case show. No one can ase what is here produced, and the surronndinge, without realiting that Banana caltare is at H mopton of the most meritorions natare. A. D.

\section*{ABOUT CHRYSANTHEMUMS.}

\section*{(Continued from p. 85z.)}

Chrysanthemums at Hollyhurst, Darlingtun. -The collection of Carysanthemame as Hollyharst, the reaidence of W. Harding, Esq, though not large, is extremely well grown, and relect credit on \(\mathrm{M}_{\text {r }}\). Cualtas, the enthquiastic cultivator of the flower in the district. There are to ne 400 plante grown, the \(J\) apanese forming tha balk of the number, and nearly every one carried good exhibition bloome. Thare were grand blooms of Lord Brooke, C. Davis, E Molyneux, Mdlle. T. Rey, Loaise, J. Sarimpton, and others tos numerous to mention. Among the iccarved, there were good blooms of R :falgens, Golden Empress, Jeanne d'Arc, Violet Tomlin, \&c. Bash plants are alao well groon here, and in the greenhouse there were some grand specimens of Salvia aplenden:-a mant of colour. The gardens generklly werd a pictare of neatnem and order, nud, connidering the number of men employed, show that the old achool of gardeners can give nome of the younger onen pointf. W. 8.

\section*{Show Cerysanthemums.}

I would akk, cannot the National Cbrysanthemam Society make a limit as to the height of fower shown of Japanese varietien, at their 0 on and affiliated socisty's shown? Taere is nothing which mars the look of the tables more, than to see one show-board of cut blooms propped up (at if they were on atack pipes) about 18 inches high, and on the next board the bloom may be abouts 6 inches higb. I cannot underatand the use of having showbourds 3 inches high in the front, and 6 inches at the back, if such cups and tuben are allowed to be placed apon them. If the flowers were staged of an uniform height, the tablen would have a more astisfactory appearance than that which prevails at present. There is generally a fixad limit at provincial ahowa an regarda the Pompona, and it in
unually that they are nos to exceed 6 to 9 inches ; why, therefore, no rale to the aame effect as regards Japanese blooms? There is another proposal I should like to ventare to make, that is, the syatem of offering prizes by proviacial shows. I do not see why they hould not offor them the anme as the Nitional Rose Society, viz., to growera of 50 to 100 plants, 100 to 300 , and from 300 to 500 . M. E. Mills, The Gardens, Coombe House, Croydon.

\section*{Foreign Correspondenge.}

\section*{A TROPICAL FROG.}

Unoer the heading of a tropical frog at Kow (Gardeners' Chronicle, November 30, 1895) I read with much interest a note on that sort of irog. I had these creatures myself for many years in one of the houes ander my management at Herbault-en-Bauce, France, having received them from Gaadaloupe, where they are aid to be very abuadant; but however atrange it may seem, I could never acclimatise them in any of the hot-houses, for as often as they were taken into other hoaser, thep lived only a few menths.

The house in which I had kept them for tea years was a large lean-to, the back wall of which was nearly covered with blocks of hard wood, covered with the bark, plit in large pieces, and nailed to the wall. O \(\downarrow\) these blocks a fine vegetation of Ferrs, Bromeliads, and Aroide, grew, and it was among those plant that the froge used to harbour, and enpecially down in the hearts of tall-growing Bilber-gias-in fact, I never aw them spawa anywhere else but just in the centre where the water lodges, and the frogs remained hidden in these plant during all day; but in the evening and at night they used to run nearly all over the house, and were very difficult to catcb. I tried many tim to catch thein, at the ame time carrying a light in one hand, bat it was almost imposible to do 10 , they moved so wiftly; but I learnt to catch them in the daytime by tickling them down in the heart of Blbergias, when they would jump on to the walke of the houses, and thus render it possible for one to catch them. This apecies of frog is more difficult to acclimatise than anyone would believe, as the following will show. When I leit the gentleman's place abovementioned, the whole of the plants were aold to my new master, and of course with the plants I took cire to take away a good many of the frogs, which I distributed as soon as the plante arrived in different houses, where I thought they would succeed; but they did not livalong, and after oas jear I think there was not one left. I have no opportunity of obtaining any more of them from Gaadaloupe, and it was only when reading the acconot of the froga at \(K 9 w\) in the Gardeners' Chronicle that I remembered having had the sam* kiud. Ch Maron, Orchit Cultivıtor at La Cavuliè e, St. Barnabe, Marseilles, France.

\section*{PRICES OF GARDEN MANURES.}

In these daye when gardenera for their own as well for their employern' ake, are ob'iged to keep their expenzes within reamonable boands, I think it is time to say something about the price of those artificial manures which are now so commonly used, bat the use of which is retricted by the unreasonable prices demanded by soms vendors-especially by those who distribate their manares through middlemen connected with the trade. "Live and let live" appears to be a maxim noknown to some. For example, there is now quite a number of different vendora of Vine and plant manurep, all of or about the ame quality and actual value, according to analysia and the teatimony of gardeners of repate, but which vary in price to the extent of from 30 to 50 per cent. or thereabouts-tbis amount I am credibly informed being divided between the manufacturer and the middleman. A thoroughly well-known agricultariat not long aince asaerted in a northera agricultaral contemporary that if gar-
deners knew as much about manarea an the "sverage farmer"--not a high eatimate of "Horty" -he would not think of buying Vine and plant manares at the prices charged for them, because they were not worth "anything like" the price charged, if they were made of the beat constituenta of manares, compound them an you may. I have long ured "artificiale," and have now price-lists before me of the above manares, both good, and apparently of identical constituents, and the diffrence in the price amounts to the percentage given above. Tie chief explanation appears to bs this, that one
was jut double the weight of that on ground which had received no manare-no other kind of manure being given, the ground being poor. The curiout feature of this trial was, that the increase was prodaced not by the Potatos being bigger, but by there being more of them, and the difforence in the appearance of the crops was marked from the beginning. I state this case incidentally, as what I wish to now is that this manare, made of fairly expensive conatituents, and bought in the way atated, coat just about f9 per ton, and could, ? fiad, have been got for a atill smaller sum. Had I purchased the manure


Fig 116.-a town garden
vendor selis direct to the coasamer, and the oither through the middleman and not only that, but the firnt of these two vendors offere his thanares mixed of his owncomposition, or mixed to the parchaser's own recipe; or he will sell any of the conetituents zeparately, for the purchaser to mix thism at home-a practice now often adopted. I bought this year my Potato-msnure in its separate constituents, according to the recipe pablished by the Technical Elucation Committee of the Wiltahire County Conncil. It c manisted of 4 cmt . each of aperphosphate, kainit, and nitrate, to be applied When mixed at the rate of 12 cxt . per acre; and wider perfectly equal conditions, carefully attended to, the crop of "Bruce" Putato under the manure
from a middleman, it would probably have cols abous \(£ 15\) per ton, 25 to 30 per cent. going, I believe, to the latter, and the rest for advertiaing and profits, \&c. The mont amaring thing about these expenaive manure is that, according to the vendors, one great featare of their value consiats in their lating effects, the best commentary on this quality being that they are to be applied once, or even twice a year, at a rate which would cost about from £25 to £35 per rood. It may be guened, therefore, what proportion of the lanting elements enter in to their composition, and these are, at a rale, the higheat priced, and have hitherto been cupposed to latt a Vine border at a lens rate of application from beginning to ond, Head.

\section*{A TOWN GARDEN.}

The garden, a view of which we give at fig. 116 . is situated in one of the blacket auburbs of London, within a ahort distanca of amoky Stratford, and of factory chimney not readily compatable. The garden was reconatructed about 1855 by the late Mr. Frank Matert, of Canterbury, whose dispoaitions were pleasing to the eye, and specially denigned to hide out adjacent abarban gardens. The illuatration tella its own tale. It mat anfice here to ay that the tree on the leit is a fiae apecimen of Ailanthas glandulosa, one of the beat of town trees; the one near the centre of the cut in an old Almond, whote dying agonie: have been recently cut short by amputation. The large ahrabs are fine old Hollies, which suffered greatly from recent severe winters and the drought of last summer, but which might atill be brought into condition by patience and good management. The tree at the end is a Yarple Beech, and near it are planted Golden Poplar, Acer Negundo variegatum, Parpls Sjcamore, Wistaria, and Laburnume, the fffect of which in pring is very atisfactory. The garden hat for the lat few years been in a measure atilised as an \&xperimental garden for the parpose of ascertaining what ahrubs would sarvive under sach untoward conditions. Ssecimens of these have from time to time been exhibited before the Ruyal Horticaltaral Society, and made the aubject of comment \(\mathrm{b}_{3}\) the writer of these noter, and have excited much ioterest. Aucubas, Hollies, Stimmia japonics, the common Fig, and Metake Bimboo, haveurvived many others, and are still flouriahing. Conifera except Pınue excelea, and Ginkgo biloba, the Maidenhair tree-fine o.d epecimen of which exist in the vicinits-refue to grow. Rota are qually refractory, bat a large nu nber of ceciducua trets and ehmbs do well, and till lately there was a good collection of bardy wild planta and tardy Ferne. Under glam, Vines had c-ared to bear, but Camellias and Fuchaias bloomed freely. Lapageria and S slanum jasminoide were the beat creepert, and at one time there was a mall but choce collection of aucculents. The rec nt death of the owner of the premisen, who took great interent in her garden, and was a geauine plaat-lover, will necenitate the break \(u_{p}\) of the establishment.

\section*{Trees and Shrubs.}

\section*{LORBERG'S MAPLE.}

One of the mat brilliantly-colourt d of Maplet in the autumn is the Map'e no named in gardent. It is a form of the pa!mate variety of the common Norway Maple, and has very deeply-divided palmato leaves, the five to reven lober wedge-bhaped at the bsep, and themselve dividing raher leas than halfway down into oblong lobalet, terminating in long slender point (scaminate). The pecimen before us was sent with a note of commendation by Mr. W. E. Gambieton.

\section*{A Woneqaful Portegal Ladrela}

I eaclose jou particulars and a sketch of a gigantic Portugel Larel growing apon the lawn at Sibertewold Vicarage, Duver, kindly sent me by the Rev. Tho. Falkner, who states, that owing to the severity of the winter last neason, every leaf dropped off, but now it is as green as ever, and well clothed with foliage. Toe tree overahadows a circumference of fally 100 feet; girth of trunk 5 feet from groand, 5 feet 3 inches; height of tree, 26 feet; circumference of head, 100 feet. Alfred Outram, F.RH.S.

\section*{Pinde Devoniana.}

Uader thit name, Lindley (Bot. Reg., 183y) dencribed a Mexican Pine ditcovered by Hartweg in the neighbouthood of Osxaca at a height of 8,000 feet. It is one of the five-lesved Pines with deep green leaves, 8 to 10 inches long, with theath 1 inch long. In Veitch' Manual, p. 184, it is mentioned at clonely rembling P. Montezuwx. of which it is considered at probably only a variety. This, indeed, seems to be the general opinion among
botanists, and a apecimen kindly forwarded from Fota by Mr. Obborne as P. Davoniana, is clearly not distiaguiahable from Montezamæ. Mr. Osborne dencribes the tree an very beautifal, but with a tendency to spread instead of keeping a straight wrunk.

\section*{The Bulb Garden.}

\section*{TIGER LILIES}

Doring the early autumn monthe the varietien of the Tiger Lily, L. tigrinum, afford a rich and distinctive array of colour just at a time when the Sanflower abounds in almost every garden. It is at sach a time that the value of some exceptional bit of colour, such as found in all the Lilies of this section, And apecial favour. And during the present year the Kew Garden authorities diuplayed these to great advantage in a aeriea of beds, ahowy at a considerable diatance. The example tha net will be sure to be frequently imitated in the near fature, Thone among your reader: who may so denire to fill some beds of these kinds, cannot do better than see to their planting without any further delay. The type, as indeed the several varietien of the groap, are all of eany caltare, and will not require any very elaborate preparation in the matter of noil. What thene prefer is, a mandy well-drained loam of fairly good depth. Where very heavy and retentive soils are the rule, the beat way will be to remore the original soil at least 6 or 9 inches in depth, and retarn old potting soil, peat-screening, half-decased leaves, wood-ashea, and road-aweepings, in itm place. And If the garden generally be low or wet, keep the aurface of the beda a little above the uanal level.

When the soil is ready, the bulbs may be planted at about 5 inches or 6 inches deep; and if sand is plentiful, a good aprinkling may be added about the balbe. With the soil prepared in the way auggented, little or no manure will be necessary; bat if any be given, let it be thoroughly decomposed, and either dag in deeply below the bulbe, or uned as a malch on the surface after planting. L. tigrinum (type), L. \(\mathrm{t}_{\mathrm{c}}\) splendens (a most handsome kind), and L. tigrinum flore-pleno, are all worthr, and among the cheapent of Lilies for the garden. J.

\section*{Sparaxis and Ixia.}

I am aurprined the above beautiful bulbous planta are not extensively grown in gardens, for all who have aeen a well-grown collection admit that they aro pretty wien in bloom, inexpensive to buy, and easily cultivated, thriving in almost all kinds of soil, and only requiring to be preserved from fronts. The late Mr. Gaines, a famons florint, residing at Battersea, used to cultivate the plants in capital style, be got together a splendid collection, the gracefal panicles or clasters of flowers, varying in colour from brilliant crimson to all shades of orange, red, rose, cream, \&c., which presented a beautifal picture on a border in the front of some long housen devoted to Pelargoniums. When the plants are planted in this manner in masses they rival Orchids in brilliancy. These balbs were left in the ground for three yeara, when they were lifted, worted, and the atrongest bulbs replanted. The border was protected by athick coating of old tanner's bark in winter. A wite for a bed of I xian or Sparaxis should face the south, the uabsoil should be dry, or be provided with drainage materials, such as brick-bate, laid all over the bottom of the bed; the aoil should connist of rich sandy loam, a small quantity of peat and leaf-mould, the depth being not lens than 1 foot. The bulbe may be planted in rows or clampa, from 2 to 3 inehes deap, according to their aize, covered with riversand to the depth of an inch, previons to covering them with the earth. If cultivated in pots for greenhouse decoration, the bulbe should be potted in October, and the pots planged in coal-ashen, \(8 c e\), in \(u\) cold frame till the folisgo appeare, when remoral to the greenhouse may take place, or they may remain in the frame. At the plante edivance in prowth, air muat be fivaly admitted, or the growth
will be weakly and poor ; and liquid-manare may be uned after the flower-apikes have made their appearance. In the month of May or later, when the leaves die down, tarn them ont of the soil, clean the bulbs and place them in boxen or drawers antil wanted the next Oatober. Edw. Bennett, Lyne, Chertsey.

\section*{Spanish Iris.}

All Irises are beautiful, sone of them being aurpassingly lovely, and fully jastifying their generic name ; but while the Garman bearded Iriv, I. Kæmpferi, I. reticulata, I. Sasiana, and other beantifal forms of the family are, comparatively, high in price, Iria hiapanica are so cheap, that large clumpa or bed may be planted of them at a trifing cont; they are, too, admirably adapted for catting parposes. The flowern are particularly bright and gay in colour, are borne on long atalke, and, while packing and carrying well, last a long time in water. While in bloom-about the end of May or beginning of June-they are veritable "cut and come again" plants and when grown in a ratber rich bed, well manared with old, rotted cow-dung, it it aatonishing the quantity of bloom they will prodace. Conaidering the low prics at which Spanish Irie, either in separate varieties or in mixture, are offered in the bulb catalogues, I am aurprised they are not more planted in the flower-beds or in flower-borders. As they die down after flowering, the ragged untidy appearance of a bed of German Iris when out of bloom is avoided. The present is a good time to plant them. I like to nee them in a bed by themselves, planted pretty thickly, for they do not take ap much room; but I have also seen fine effecta where a carpeting of Silene pendula compacta was put over them. I naw a bed of Spanish Iris among which Violas were planted so as to form a ground-work, and as they all bloomed at the name time, the effect was very beautifal. A. H.

\section*{FLORIBT8' FLOWERB.}

\section*{THE HOLLYHOCK.}

I have been much interested reading the remarks on the Hollyhock by "R. D.," and anc glad to know that there are cultivatora who can grow the Hollyhock aucceufally. I have been trying to grow it for the last twenty years, but I must say that my ancceas has not been conspicnoun. I can manage to get rid of the Carnation disease, and to keep it away by isolating the Carnationa, and placing every new one I obtain into quarantine ; and if the disease is there, it soon shows itself, and the diseaced portions are then cut off before the spores are developed. This is effectnal as regards the Carnation; but the same treatment will not do for the Hollyhock. Every leaf may be cat off, atill the direame will show itself whenever the firat leaves appear. I tried to grow Hollyhocks in my new place in Sarrey, and sowed reed, keeping away every plant from the place but the needlinge. They grem amazingly on the new ground, and I was in expectation of a fine bloom; but almost before the flower-buds were formed, the disease appeared. I tried the plan of removing the leaver affected, bat it was of no avail; the attack came in 1894, and was the mont viralent I ever knew. How did the planta get the direase? This was a poser for some time, until I found out that nome plante of common varieties were growing at the railway atation badly diseased; the planta were at some distance, atill the minute aporen of the disease were carried apon the clothes of the garden men, and thas it came that my plante were infected. If dieeased Hollyhocks are allowed to exist at railmay atatione, it will be hopelen to attempt the calture of this atately plant in any garden whence passengers are pansing to and fro; for I believe that the minute apores are carried on the clothes of any one going near direased plants. I am not aure what I can do next, for the plante were so bad that I destroyed them all. I have a maller lot of reedlinge, and a few named sorts, to flower next year, but I deupair of succens. A good atrain of seed is sure to
give good varieties, an about 50 per cent. of seedling Hollyhocks are as good as the parents ; and if good varieties are not produced, one knowe well enough who to blame.

As to the calture of the Hollyhock, that is nimple enough, for even in cottage gardens the most atately plants are prodaced with little trouble; neverthelena, the plant in a grose feeder, and the good reanlts obtained in cottage gardens are doabtless owing to liberal applien of pig-manure. It neeme the dieeare is inflaenced to a considerable extent by the reanons. The wet aeabon of 1894 was favourable to the development of the disease, and latt season being exceedingly dry was unfavoarable, the plants having a chance to do better if they were well watered at the roots, and the leaves kept free from red-apider. J. Douglas.

\section*{BERLIN.}

\section*{ENGLISH VERSUS GERMAN CYCLAMENS.}

To "F. N. S." I have to reply that Eaglish varieties are caltivated by Mr. Schwarzburg jast in the name way as the German ones. As I remarked in my firat letter, it may be ponible that the treatment in difforent in Eugland and in Germany. It may be also that the Eagligh varieties grow beat only under the treatment to which they are accuatomed in Eagland. The fact is, that German varietien grown together with Eaglish ones, and in the ame way, nurpase the latter. To-day I have a second proof of the trath of my remark. A second lot of seeds of Eaglish varieties was given by the Berlin Horticultural Society to another Cyclamen specialist, Mr. Tabbenthal, at Charlottenburg, near Barlin, who tested them. Thay were exhibited at the meeting of the society on the last Tharsday of November, together with varieties grown by Mr. Tabbenthal. This time the difference was still more atriking than the first time. In this case also, the English varietien had quite the mame cultivation as the home-grown ones. Mr. Schwarzbarg has reported upon the trials ; but in order that this may be quite diainterested, Mr. Schwarzburg anked the nociety to eelect a committee to teat his report and the plante. The report will be published in the Gartenflora. At this meeting it was stated that the English Cyclamen growers very much aurpased the German ones about fifteen or twenty years ago; bat since that time the German ones have progreased no far, after they introduced Eaglish Cyclamen blood into their cultivation, that they murpans the English, as is now ahown by the plante exhibited. It was remarked during the discuanion that several of the varieties which were brought to Germany fifteen or twenty yeara ago, to freshen up the German Cyclamen blood, were quite the ame as were cultivated this year from Eaglith weed. Another remark of intereat is, that German gardener: who grow new varietien give no new names to there sorte, but cultivate and improve them yearly by selecting the very best specimens for meed. So it comen about that there are in different nurseries different high-clase varieties, but without distinctive namen. If I knew on which days the meeting of the London Royal Horticaltaral Society is held, it would give me mach pleanure to send to the meeting some of our beat German varietien, as also plants of Eaglish varietien, grown here together with the German onee. Then the society could nee for itvelf whether the English varieties are bent here, and whether the German onen surpass Eaglish onea grown in their native country. On the other hand, it would be of much interest to German apecialiata if we could ree some Eaglioh-grown planta. I ber Eaglish Cyclamen apecialists who take an interent in this quention to forward to me some of their bentgrown plante, that I may show them here before our Horticaltural Society. I have further to remark that Mr. Schwarzburg is not a need-merchant; that he raises cnly as many seeds as he needs for his own cultivation, so that he cannot give aeeds to thone who have alked for them, but that Mr. Tabbenthal in willing to anply weed, as he aloo growa the plante for needs.

Chrysanthemums.-At the same meeting there were showa some Caryeanthemume by Inspector Weber of spindlerafeld. I must confegs that they now rival the Eaglish-grown plants shown some yeara ago by Euglish apecialists. There was amongat them a new variety, Tangarika, imported by the President of the German Dendrological Society, Hofmaruchall von Saint-Paul-Illaire, directiy from the Imperial Gardens at Tokio. This giant variety meanured 22 centimetre (about \(8 \frac{1}{3}\) inches) in diameter, is pare white, and of very fine habit. Hofmaruchall von Saint-Paul wrote from his revidence at Fischbach, in the Riesengebirge, that amongat the varieties he imported from Tokio there is now flowering one which has a acent very much resembling that of Violets, or even more that peculiar to the rhizomata of Iris florentina. This may, perhape, be the parent of quite a new race, welcome to all those who do not like the acent of other Chrysanthemume.
Of high interest at the ame meeting was some forced Lilac Marly, exhibited by Mr. Harms, of Hemburgh. Mr. Harme remarked, that this variety is best for early forcing. It does not need much pre-
large horticultural exhibition plants which were bought by the exhibitor ahortly before the opening of the exhibition; indeed, cases are known in which the plants were only borrowed. Thas, at our lat great exhibition in 1890, I remember that one of the jurors, the director of a famous Netherlands botanic garden, exclaimed, arprised, "How comet this plant here? There exist of this specien but one specimen, and that in in my garden." The exhibitor, questioned about the matter, declared that the head gardener had borrowed it for the exhibition. Certainly the exhibitor has no other claim to merit than that of having brought the rare plant to the exhibition. To award him a prize would be absurd, but he earna large rewards for the rich collections he has brought to the exhibition, which cannot be proved to be grown by himelf. Certainly, at an exhibition, the labour of the caltivator should win him the prize, and not the fact that he hav the longeat parae to enable him to buy ap the beat specimens from different nurmerien. It is misleading, if the exhibitor does not declare that the exhibited plants are not cultivated by himelf. The jarors cannot


Fig. 117.-liliput nastubtidm.
paration during the precoding summer, an doen Charle X. The only preparation needed in that workmen should divide the bushen in the nurwerygarden during the anmmer months. From one aquare mètre Mr. Harms raised from 60 to 90 flower-atalks. At the name time, he force three time daring one reason, so that the yield is good, eapecially as much Marly Lilac is atill imported from Paris. Dr. Udo Dammer, Friedenau, near Berlin.

\section*{A Question Relating to International Horticultural Competitions.}

In the epring of 1897, will be held, on the occanion of the eventy-fifth anniversary of the Berlin Horticaltaral Society, an international horticultural exhibition. The exhibition committee hat proponed that only ach plants as have been for at least one year, or for one cultural season, in the hands of the exbibitor, hall be admitted in competition. To this proponition considerable opponition was aroused, and the united committee of the aociety did not give their approval to it, Now the general body of the Fellow bas, at ita next meeting, to decide thether thia proposal hall be adopted or not. I think the quention of such international interest that it may be discussed in this paper. Certainly it would be a very important atep if an intervational arrangement could be made. The reavon for the proposal was, that there have been ahown at recent
know, without such a declaration, who is the grower Certainly, there will alway be some exhibitorn who will not heaitate to declare falsely that the exbibited plant were cultivated by themselven Against auch no laws can avail, but I think that a great many would be afraid to do this if there were an international agreement that all thowe exhibitor: who are convicted of having misled jaror by false declarations concerning the origin of their plavt ehall return any prize they may have wov, shall be excluded from all exhibitions, whether they be local or international onen, and that their nsmes shall be pablished in the principal horticultaral papers of the different countriea. If this resolation were an international one, the exhibitions in a thort time would be again what they once werea true nhow of plante which different gardeners have cultivated.

It was aid that the regulation that the planta mut have been under cultivation for a certain period by the exhibitor, would give occation for untruth. I may, that this can be mat by the resolus tion, that he who says that plants which the exhibitor declare to have been cultivated for the necetsary time by himelf have not been cultivated for wo long by the exhibitor, wall be confronted with the exhibitor. Then it will eavily be seen who is right. And if this were done weveral times, auch uatruthe would be checked.

There in no doubt that a great many cultivatore will exhibit their plant:, if they know that they have only to compete with other growers, avd not with thone who have elected the finent apecimena from the bet apecialiste. It is clear that againat the latter no cultivator can compete. The gardener's endeavour is to improve bis plants. He works to aell his plants. Now, there is, as regards the advancement of horticultare a great difference according to whom a grower elle his plants-to a gardener who buys them for exhibition, or to the pablic, or to amateuru. In the first case, all who do not know the origin of the plants, will think that the exhibitor of bought plants is the grower. Certainly those who wish to bay the best will go to the exhibitor, and if he would give at good plants an those which he exhibited, he is obliged to bay them from the grower. It is doabtful if he can get together much a collection a second time. At all events, the grower's name remaina unknown, and he does not get the prices for his plants which he would get if he undertook the basiness himself; oo it in to the interest of the growers that they should exhibit their plants under their own namen. It in very shortsighted to say it is the same thing if the plants are sold to another gardener or directly to the amateur. Only by direct competition between the grower is horticaltural progrens possible at local or at international exhibitions. Indeed, at the latter it is even more important than at the former; for an international exhibition is viaited by far more pertons than is a local one, and competition is greater If the larger horticultural societies in England and on the Continent would unite to work in this direc. tion, local societie would certainly follow, and then this apurious competition would noon disappear from horticultaral exhibition.

It in a queation of aecondary interest to determine how long a plant muat be caltivated by the exhibitor betore it can be admitted to an exhibition. The exbibition committee at first proposed that the planta must bo grown by the exhibitor from seede or cuttings ; but this limit wat reduced 10 that only one jear's cultivation or one cultaral period was deemed necessary. Forced plants were said at first to be admisaible when the exhibitor had forced the plants, bulbs, \&cc, himeelf. A severer rule woald necenaitate that the grower of the forced plant muat also assert his interest. An exception, it is true, muat be made for imported plante, ae well at for novelties ; but in both case it is necensary that the exhibitor declare that the plants have been imported, and how long ago they were imported, and also how long he has had the novelties in cultivaion and, if not self-grown, that he is not the grower.

At all events, horticulture would be much advanced if these proposals should find acceptance by large horticultaral ocietien. Then certainly the international character would be atill more evident than hitherto, becaune the cultivator: would know that at exhibition right hat preference over might, and that they can compgte fairly with their compeers in their own special branches of cultivation. I should be glad to hear the opinion of English gardeners on this sabject. Dr. Udo Dammer, Curator of the Royal Botanic, Garden, Berlin.

\section*{NASTURTIUM LILIPUT.}

Usder thit appropriate namo, H. Erast Benary, florite and nurneryman of Erfart, hav introduced a new variety of Tropæolum Lobbianum, very dwarf in growth, being in every reapect maller than the wellknown N. Tom Thamb, and covered with dainty little flowers in great profusion, and just showing above the amall foliage, making it one of the prettient of annalis. The flowera are of diverse coloura, nome of these being quite new, not appearing in the old varieties. This feature, and the fact that the seed. are much amaller than those, are evidences of an entirely new break in the Tropsolum Lobbianum section. Herr Benary has not an yet been able to fix the colours; but, as he says, the mixture is bighly effective in group and borders.

\section*{Plant Notes.}

BURKHILL NEW WHITE MIGNONETTE.
We have had a good many so-called white Mignonetter, at well as acarlet and other colours; bat few of these can be asid to have had a very lengthened existence. We have greatly improved the primitive type in babit, compactnese, profunion and size of blossom; but as to colour, fastion has been in farour of the original nentral tint. But this new white is pure white, with a trun of bloom that may be truly deacribed as at once bold and graceful. It may be fancy, bat I believe it is also a fact, that it is the sweetest atrain of Mignonette in the trade. I have met with it eeveral times recently in pote, and on each occasion have been most favourably impressed with it whiteness and refined fragrance. The parity of its colour will make it a mont welcome addition to bouquets, wreaths, \&c. D. T. F.

\section*{Clebodendron fallax.}

Wo find the best way to aucceed with this wellknown old atove plant is to raine plants from seed each year. A mall batch of March-sown plants is juat going ont of flower, on which are a number of seeds that will ripen in due course. The plants stand on the side atage in an intermediate-house. As stated, the seed are sown in the month of March in shallow well-drained pans filled with a light compost, and as soon as the young plante are large enough to handle, they are potted aingly into thumbs in a mixture of two-parts loam to one of rotted leaf-wil, and when these pote fill with roots, the plants are placed in 5 -inch pote in a nimilar soil, but with the addition of a small quantity of sifted fowls'dang which hat laid in a heap for nome month. Daring the summer the plante are grown in any ordinary Cacumber or Melon-pit, but not too much shaded. Is Soptember and October they add brightness to any warm plant-houe by their large ecarlet panicles of blonnow. H. J.C.

\section*{Fruit Register.}

RASPBERRY BELLE DE FONTENAY.
Tag fiae weather experienced during September and early October was favourable to autumn-fraiting Rsapberries, and I do not remember having meen Belle de Funtenay in euch fine condition as it was st that season. It is a variety that is excellent for antumb-fruiting, and is well worth cultivation if for that only, as its frait come in usefally with the retarded red Carranta. It is somewhat tart in flavour, bat not theretore dialiked at a deasert fruit. Ite requirements as to soil are similar to the summerfraiting varieties, and it should be afforded an early and ennay situation, so that its fraits, particularly in late teasons, may ripen perfectly before frot sets in. Unlike the summer Raspberries, it fraite upon the carrent year's growth, and in praning it, therefore, all its canes should bs cut down to the ground not laser thas February. The young growthe should be thinned early, leaving the atrongent to crop, and these must on no account be allowed to become crowded, bat be keps well thinaed out, so that they maygain as far as possible every banefit from the suasad air. For this reavon it is not advisable to stake them; sud, indeed, it in unnecemary to do so, as they are eturdy enough to be self-supporting, and it that left alone they naturally arch, and fully expose their flowers and fruit. Thomas Coomber.

\section*{Gaakd Duke Plum.}

A: alate bleck variety, we like this Plum very much. It reacmbles Dismond in appearanise, but the frait has heavier bloom, and at Mereworth it is if far better flavour, and the tree growing on a west wall, crop freely. The frait have the good charecterisic of keeping for a long time after ripening without meivelliag; in thort, it is mout valuable Plum. The variety was raised by Mr.

Rivers, Sawbridgeworth. It is a seedling from Autumn Compote, and ripens from the 10th to 20th of October.

\section*{Apple, Newton Wonder.}

This comparatively new introdaction of Mesare. Pearson, of Chilwell, is apparently a cross between the Blenheim Orange Pippin and Wellington, having a resemblance to both these varieties. I havenot as yet grown it, but it good qualities are highly spoken of by Mearr. G. Bunyard, at whose nursery plece I recently anw some heavy and handsome fruits. If the trees bear early, and are fairly free from canter, then we have in Newton Wonder a first-rate Apple, which can be kept in sound condition till the month of May. It was exhibited by the raiser before the Royal Horticultural Society in 1887, receiving a First-class Certificate. It is said to be eminently suited to cold oils and districts. H. Markham, Mereworth Casthe, Kent.

\section*{The Week's Work.}

\section*{THE OFCHID HOUSBB.}

By W. H. Whits, Orchid Grower, Burford, Dorking.
CCELOGYNE GRI8TATA, ETC.-Plant of this winter-fowering Orchid are howing flower-mpikes already, and where there are aeveral apecimena, long auccession of flowera will be afforded if one or more of them are placed in a slightly warmer aituation than the others. At this period the caltivator should guard againat over- watering the plants, or sprinkling the bloom-spikes, these being liable to rot away if moisture accumalates about them. Just before the flowers open, afford the plants a thorough soaking of weak liquid manare-water to ansiat their development. C. ccellata maxima and C. elata are also pushing up their flower-spikes, and need to be copiously watered till the flowera fade; C. Alaccida, C. Mansangeana, and C. tomentosa, are at rest, requiring very little water at the root before flowerspike appear, or growth recommencea. Spscies that have bloomed recently, as C. Rossiana, C. Cummingii, C. graminifolia, and C. aulphurea, may be re-potted if they require it.

MAXILLARIA,-Among plants in flower in the pretty Maxillaria lepidota, who bloomm, although of amall wize, last a long time in perfection, and a strong plant here with over 100 blooms open is regarded as a very effective feature at this season. M. picta, not so showy as the first-named flower, also in flower, is as interesting, and on that account worth growing, as also for it delightful fragrance. Such handeome and atrong-growing species an M. grandifora and M. venusta that have jast pasmed cut of flower should be examined, and it greater root-space be needed, it should bs afforded. Orergrown plants, or those whose central growth have become much crowded, may be divided, and made ap into small, compact specimens, or re-potted as single pieces. Maxillarian rfquire liberal root-watering and a moist atmosphers when making growth; and it is important when repottiog them to have the pota well drained. The compost should connist of one-third good fibrous peat and two-thirde sphagnummoss, with plenty of mall crock intermixed. Pot somewhat firmly, and keep the base of the plant a little above the rim of the pot. It in not advisable to afford the plant a heavy watering for a few weeks after diaturbance, but oprinkle the aurface of the compont, so as to keep life in the aphagaum-moss. When new growths are observed to push out roote, the quantity of water may bo alightly increased. A light part of the cool-house is the proper place for there plant the whole jear.

ONCIDIUM INCURVUM.-This in a graceful and pretty Orchid, when well bloomed, that is now starting to grow, and hould, if necessary, be repotted, using the same kind of compost as that recommended for Maxillarias. Both geners grow thoronghly well together, at they need an identical trestment. Oacidium ornithorhyncum has also just passed out of flower, and may now be aupplied with fresh material to root into. This species nacceeds in the cool-house in summer; bat in winter it thould be placed with Mittonim vexillaria in the intermediate-house.

MILTONIAS - The majority of the Brazilian Miltoniap, viz, M. spectabilis, M. Moreliana, M. candids, M. bicolor, M. Peeteraiana, M. Clowenii, M, caneats, M. Rassellians, M. Regrellii, \&c., will now
be reating, and until growth recommences they should be kept comparatively dry at the roots. Keep them in the coolent part of the intermediate-hoase daring winter, where they will obtain as much light as poasible. Uafortunstely, these planta are seldom kept in a healthy and matiafactory condition. The principal cause of failure in our own case has been the use of anaitable material for them to root in. I find they thrive bent in good fibrous peat from which all the fine matter has been sifted out. Use no sphagnum-moss, bat mix plenty of broken crock: with the paat. In auch material they can be watered very freely, and daring the growing season this is ensential. The water passes quickly away, and the risk of damp in bulbs or foliage, and decay at the roots, is practically avoided. Supply fresh material when new growth commerces. The dwarf-growing varieties, an M. pectabilip, \&c., may be put in shallow pans, and nopended to the roof; but others are best grown in pots, and kept well above the rim. M. Schroderiana, a rare and haodeome apecies, is in full growth, and should be given the warm temperature of the East Indianhouse daring the winter month. When the new bulbs are matured, it may be removed to the Cattleya or intermedate-hoase to rest and flower.

FRUITS UNDER GLASE.
By biohard Pareer, Gardener, Goodwood, Chichester.
THE EARLY VINERY, - This house bting now closed for the forcing of the Vines, great care will be needed to enare all the bad breaking regularly, therefore no fire-heat will be needed for the first few days, and this is the more important if the canes are young and have not been forced before. If the canea are trong and well ripentd, and the precantion taken to bend them down that the apex will be as low as the lowest fruiting spur, they may so remain till it is seen that every prominent bud has started. In oar early vinery, the Vines are planted in a narrow border, which received a thorough watering when the honse was closed; and the canes will be kept fairly moist by aringing them regularly once or twice daily, accordingly as the weather in dall or bright; no more root-watering will be applied until active growth begins, after which time tepid water will be used alwayn. In the absence of frost, no \(d\) fficulty will be found in keeping the temperature at \(55^{\circ}\) to \(60^{\circ}\) during the day, with jast a slight amount of circalation in the hot-water pipes, and for ten days or a tortnight this temperature hould not be exceeded. The night temperature may range from \(48^{\circ}\) to \(50^{\circ}\). If the roof can be covered at night with thick canvas or other material, it will be an advantage. These tempersturen can be secured in mild weather by the sole use of a bed or two of fermenting materials, placed in the house, the moist heat of which greatly assist the breaking of the canes.

8econd vinery.-These Vinea ahould now be pruned, and the huuse got in readinesi for a start being made at or about the New Year. Oar Vines in the second early vinery are forty years old, and with a view of affording fresh vigour to them with ut replanting, every alternate cane was cut back to the bottom wire lat winter, and from there old stems vigorous canes have been secured, which are in a well-ripened condition. These canes will not be cut back very much, bat from 8 to 10 feet of cane will be left, from each of which I hope to take from two to four bunches next acason. To make room for the development of theae young canen, the lower spurs on the eld Vines will be sawed (ff at far up an may be necenary to allow apace for the side shoots of the yoang canen to grow. The top parts of the old Vines will be cropped until such time as the young ones come into fall baring. when these in their turn will be cut beck in the same manner. As the Vine border in this house wan recently re-made, nothing is required in the Way of preparation beyond raking off the rabbish and levelling the rough eurface. After a time the arface-soil will be lightly broken with a fork, and a dreasing of Thomen's Vine-manure applied.

STRAWBERRIE8. - For the earliest batch, make une of the variety Vicomtese Hericart De Thury potted in 5 -inch pots, which cennot be beaten for early fruiting. Prepare them by planging the pots to the rim in a bottom-heat of \(70^{\circ}\) to \(75^{\circ}\) afforded by a bed of leaves, or leave three quartern, and atable litter one quarter. This ahould be made up in a pit, capable of being heated, if necensary. Bring the bed pretty close to the glaes, and afford a top-hest of about \(55^{\circ}\). By
this kind of treatment the plants make strong growth, and by bringing them on slowly the flowertrusses are strong and carried well up above the
foliage. Ventilation munt be afforded to get rid of rank steam, otherwise injury will be done; in fact, a chink may be left on alway if there is any fear that the temperatare will rise above the point recommended. The lights should be covered with dooble mats on frosty nights, the plant being exposed to the light early in the day. I prefer to surface-dress the plants when the fruit is set, bat it may be done when the plants are brought in.

\section*{THE ELOW GR GARDSN.}

\section*{By Baiter Wadds, Gardener, Birdsall Gardens, Fork.}
cutting evergreens.-If the weather continue favourable, advantage should be taken of it to thin oat and prane Laarels, Box (bat not clipping the leaves of this last). Hollies, and other evergreen shrabs. The pranings being in demand at this tesson for decorative purposes, should be saved by inserting them in damp soil. Together with these may be atsociated in decoration Sprace Fir branchlets and Ivg, all of which should bs secured and kepts in readiness for use. To many of us this meason brings a great deal of work in the matter of wreathmaking for a variety of purposes; and when the day are fine, it is a good plan to gather in as mach material as will ba required, it not being an agreesble job to gather it when the trees and shrabs are covered with now or rain is falling. The work of cotting decorations require careful doing, or much damage is done, therefore get it through in fine weather if possible and in adrance of the time. As material for wreaths for twining round pillars, nothing looks so well as small shoots of Holly, furnished with berries; heavy wreath for the tops of screens or walls should be made of Mahonia, Spruce Fir, Box, and Ivy, and when the Holly is well-berried, large branches may be cut from trees growing in out-of-the-way places. Care is necesary in fixing Holly branches in position, as they should not be placed so low that persons can bruah against them, or damage may be done to the pictures by the leaves, or to carpets by the fallen berrie. For bright green foliage the Common Larurel is one of the best.
everareena by parcel post.-Package of thes may be sent without much damage if a piece of stick or light lath cut a little longer than the parcel to be sent, so as jast to stick out at each ead. Lay the tick on a sheet of newspaper, then lay the evergreens, Misleto, Holly, Fern, or even flowers, in the middle of the parcel, and tie carefully with the evergreens packed all round the flowers, making the outer covering fast to each end of the lath. In this way the decorative materials that are so highly prized by townsfolk at this feative season may be nent by post for little cost, and there are no boxen to be retarned.

HELLEBORUB NIGER AND OTHER SPECIES.-Bell-glasses, hand-lights, or garden-frames should bo placed over the roots of the first-named growing in the borders, so as to protect the blooms from now and rain. Clamps may also ba potted in andivided masses, and placed in an intermediatehoase ; the best variety for this purpose is H. anguttifolia -a fine pare white-flowering variety in mach request at this season. It can, with a little heat, be quickly brought into flower. There are several fine varieties worthy of a place in the herbaceous toil be well drained and rich. They are readily increased by divisions and by eeda. For flowering daring the winter and early spring they whould bo planted in sitastions sheltered from the north and eart. Valuable varietie are H. maximat, H, M, leciniatas, H. niger Mne. Fourcade, H. gatatas, H.
olympicus, H. orientalis, H. D. Moose, H. palliolympicus, H. orievtalis, H. D. Moose, H. palli-
dus, and H. p. alba. The more ahrubby varieties, viz, H. "ootidus and H. trifolia', have beautiful foliage.

\section*{TGE HARDY FRUIT GARDE世, \\ \section*{Hy W. Pope, Gardener, Highelere Castle, Newbury.}}

FRUIT CORDONs. - The utility of cordons shoald frait trees, for not of by the intending planter of frait trees, for not only do such forms of fruit trees come quickly into bearing and generally afford the to fill ap emall vacant spaces on walle or fonces Which would otherwise be left unoccupied. Where when wand otherwise be left anoccupied. Where
trained trees or of maidens ahould be made, planting
them as early as possible. them as early as ponsible.

\section*{PRUNING SWEET CHERRIE8 AND PLUM TREES, -} These trees, although differing much in character of growth, require a somewhat similar treatment in the matter of proning and training. The fruit being in both case produced on spars, the breastwood and lateral growth on the main branches thould be shortened to a couple of buds, and the leading shoots laid in where required, care being taken to avoid crowding the shoots in any part. Pyramids or bushes thould have all the lateral hoot not required for furnishing the trees, sparred back to near the main branches, and the leading growth shortened more or less according to atrength, in the case of side branche to an outside bad, or if very atout and sturdy, they may sometimes be left anshortened. Keep the \(\mathrm{c}=\mathrm{ntres}\) of the heade thin, othat light mas penetrate to the inner parts. Scandarda, eapecially of Plama, rfquire frequent attention in the matter of thinning, or in fem years, if this be neglected, the whole interior parts of the tree will be fraitless.

Morello Cherries form very pretty and profitable pyramid or bushes if proper attention ba given to the necestary pinching once or twice daring the sammer. At the present seaton the young shoots on these must not be shortened, but merely thinned by catting out the weak and badly-plact d ones. As regarde wall trees of the Morello, mach of the old wood may afely be removed and replaced with young growth. An error often made is to train-in the bearing-wood mach too closely, for as a rule each fraiting-shoot ought to be allowed from \(4 \frac{1}{\text { a }}\) to 6 icchen apace on each side. Spara ahould be thinned in number, those retained being close to the wall, and not allowed to extend themselves so a to form breastwood.
manuring the fruit quarters.-Advantage thould be taken of frouty weather to wheel manare to the Gooseberry and Carrant quartere, lightly forking it into the groand, so as to jast pat it out of aight. Raspberry plantations, if long planted, should have a heavy dreasing of farm-yard manure applied as a mulch. New plantation may not require more than will manare the lines of plants for a distance of 1 foot on each side of the same. This will serve at the same time to protact the roote from hard froste. Daring open weather, liquid-manure should be applied to the roots of old orchard or eatablished fruit-trees elsewhere, such as wall-trees which are weakly, or fail to finish their cropi natisfactorily. Before applying duag to these last, the soil should ba drawn away down to the surface-roots, and farmyard drainage-water in quantity afforded; the soil hould then be returned over them, and the top-dressing put on.

\section*{THE KITCEEN GABDEN.}

By Joun Lambirt Gardener, Powis Cantle, Welshpool.
EARLY POTATO8.-Where the earliest batch of new Potatos is obtained from plants grown in flowerpote, preparations for a start may soon be made. The pots should not be less than 9 or more than 10 inches in diameter. They should be well washed out, and the botsom covered with a \(1 \frac{1}{2}\)-inch layer of crocks, and these covered with some of the coarser portion of the leaf-mould. As a potting-compost, the now mellow losm that formed the beds on which Melons were grown will be very anitable, if a small amount of leaf-mould or Mashroom-bed manure be added, together with charred earth, \&c., filling the flower-pots to three-quarters of their depth. Place the set-preferably an uncat one-sa inch deep in the middle. A Peach-house or vinery just atarted to force will be auitable for the pots. If the soil is moist when used, no water will be required by the aets before growth appears, and when that occurs, place them as near as possible to the roof-glan, so that they may grow short-topped sad stardy. When of safficient height, Gill up with warmed soil to within an inch of the rim. At this period a thorough watering of the mill with tepid water may take place. Oae advantage of forcing the Posato in flower-pote, is that they can be accommodased in places which would scarcely be oceupied with other plants; and I have seen some fairly good results come from the following method. The method parsued is to plant in pite capable of being heated, or wooden frames atanding on hot bods of dang and leavea, and for the earliest crop the heated pit is preferable. Pits and frames ahould be whitewashed, in the care of the former, and scoured with sosp-and-water in that of the latter, and thea filled with woll prepared hot-bed materialb, vizo,
atable litter and tree leaves, or the latter alone, made quite molid by treading them evenly all over. Before putting on the soil, the warmth thould bs on the rise, and thould the bed have sank mach, enough prepared materiale should be placed on the saríace and trodden down as before, and to such a depth that the bed of soil will not be more than 6 or 8 inches from the glase. The compost for use in hot-beds is the wame as that advised for Potato in pots, and it should not be of les depth than 8 inches. When the toil has becom Warm, aly \(75^{\circ}\), which is about the proper temperatare. the net. may be planted. 'To eave time, place a nufficient number of selected sets in boxe or mall pots, covering them with leaf-mould, and set them to sprout in mild heat. These when transplanted will have a good bit of leaf-soil adhering to the roots, and will not be mach checked in growth by removal. Piant in rows 2 feet apart, and from 9 to 10 inche apart in the row. Grow the planta quickly, bat do not let them become drawn by tou much warmth, or the exciualon of light and air. Some gardeners sow Radishes betwepa the rows, but it seldom pays to do so, a the Radishea grow mach better by themselves. The following are pxcellent forcing varieties, viz, Sharpe's Victor and Veitch's thort-top Ashleaf.

\section*{PLANTS UNDER GLABB.}

\section*{By W. H. Surter, Gardener, West Dean Paph, Chieherter.}

FORCING HOUBE.-The plants which may be brought into the forcing. house, viseries, or peacheries, consiat of Lilacs, Deufzias, Roses, Hoteia japonica, Azalea indica, A. mollia, Ghent varieties, and Roman Hyacinthe, and these being kiads that require but a small degree of heat to bring them into flower, are the betfor the mid-winter season. The flowere will endare a much lenger time if the plant are brought into a lest warm house or pit when these are about to expand. At this date Lily of the Valley crown are flowering capitally well, owing to their being thorougbly mstared. The pots containing the crowns, if they are forced in this manner, and not in boxes, ahould be p'uaged in the hottent part of the bed, and afforded plenty of warm

Chrybanthemums.-Most of the Chryasntbemum plants will shortly be out of fower; and it will require in most places a good deal of forethought and good management to maintain a gay appearance in the conservatory, and to supply flowers eisewhere daring the next two month. The following kinds of balbn, viz, Narcinan, Tulip, Scillan, Irin, and Jonquil, are useful in a variety of ways and easily forced into fower, and these, like others, are the better for being brought into a lower temperatare than that of the forcing-house, to open their blossoms. If clump of Christmas Rose are taken up and placed in a warm greenhouse, they will quickly come iato flower; and the pare white flowers are alway mach admired, and useful in a variety of waye.

POINEETTIA PULCHERRIMA. - The stronger plants, whose head have been removed, whould alway be asped for increase of atock, aud they may at once be stowed away beneath the greenhouse or stove-ntages, or other frout-proof, dry aituation. The gaps made by their removal may be filled with others that have been suitably prepared in an intermediate-bouse.

RICHARDIAB.-All the well-rooted plante should receive plenty of manure-water, and any which are throwing up spathes may be placed in a warmer horse than that they now occupy. Famigate the plants once in three week to destroy aphia, which, if namolested, soon upoil the apathes.
oeneral hints.-Named Hyacinth, late Talip, and \(D_{3} f f o d i l\) bulbe at the prewent time planged in coal-anhes out-of-doors or in frames, shonld be oceaaionally examined, and all thoe which have commerced to grow at the top and have plenty of roots ahould be removed to cold frames or the greenhouse, and isured by degrees to aunlight. Italian Hyacinths anceed the Roman variety, and the blonsoms are uwefal material for light decorative parposes. Koep Violets in frames free from decayed leares, and if any of the plante show aigne of dampiag, dust them wilh charcoal-powder, acd draw off the frame-lighte in mild weather. If froat threatens, place litter roand the frames and cover up warmly. The present is a suitable ceason for obtaining loam, pest, sud, aphagnum and other moss, flower-nticks, \&c., al d leaf-soil.

\section*{EDITORIAL NOTICES.}

Letters for Publication - All communications intended for publication, as well as specimens and plants for noming, should be addressed to the Editor, 41. Wellington Street, Covent Garden, London. Communications should be WRITTEA ON ONE SLDE ONLT OF THE PAPER, sent as early in the week as possible, and duly signed by the woriter. If desired, the signature will not be printed, but kept as a guarantes of good faith. The Editor does not undertake to pay for any contributions, or to return unused communications or illuctrations, unlese by special arrangement.
appointments for the ensuing week.

SALES.
(Sale of the Lease and Stock of the Westfield Furseries, Road. Chesterfield, on the Premises, by Protheroe \& Morria (two daye).

THURSDAY,
Dec. \(10\left\{\begin{array}{c}\text { Roses, Carnations, Azaleas, Duloh } \\ \text { Mulbs, \&c., at Protheroe \& }\end{array}\right.\) Morris' Rooms.
FEIDAT. DFC. \(10\left\{\begin{array}{c}\text { Orchide, at Protheroe \& Morrib' } \\ \text { Roome, }\end{array}\right.\)

CORRECTED AVERAGE TEMPERATURE FOR THE ENSU ING WEEK, DEDUCED FROM TRE OBSERVATIONS OF FORTY-THRRE YEABS, AT CHISWICK.-40.

\section*{Potatog.}

Under the auspices of the Teohnioal Education Committee of the Surrey County Counoil, Mr. Joun Wright condacted a series of experiments, with a view of ascertaining for different localities and various soils, the best croppers and the best varieties generally. The report is now before us, and very interesting it must be for the cultivator. The experiments were conducted in ten different localities, and the results were oompared by means of samples got together and exhibited in the public hall at Carshalton, on October 16 and 17. Two hundred and twenty dishes of Potatos were shown, the tabers being exhibited as taken up, and a sample of the soil upon which they had been grown was placed beside them, The smallest but most shapely came from the ohalky soil, the largest from the clay and peat, whilst those from the sand were the most soabbed. A selection from the best was cooked, with varying results, as might be expected from all the tabers being cooked at the same time withoat reference to their matarity. We cannot give all the details of these interesting trials, bat
their general character may be gleaned from the following extract:-
For good shape, thirty varietien were chosen from the entire exhibition. Of these, Chancellior was found in zeven collection from as many centres. Satisfaction in six. Goldfinder in five. Renown and Windsor Castle, each, in four collections. The Brace, Prime Minister, The Canon, Triamph, and Congress, in three collections. Sapreme, Dreadnought, Colomal, Best of All, White Perfection, and Victory in two collections. Only one dish each of the remaining fourteen varieties was chosen from the whole of the samples displayed.
For quality, Goldfinder, Sapreme, and Satisfaction were the beat from dark, boggy soil. Windsor Castle, Satiafaction, and Renown from clay soil. Sapreme, Satisfaction, and The Bruce from dark, sandy soil. Colosasl, Satisfaction, and Windaor Caatle from chalky oil. Challenger, Chancellor, and Duke of York (early) from sandy-peat soil. Fature Fame, Satisfaction, and Beat of All from gravelly moil. Triumph, Satiofaction, and Windeor Caatle from marly ail. Victory, Early Regent, and Dean's Renown from loose and. Trinmph, Victory, and Satisfaction from atrong loam, Paritan (early), Windsor Castle, and Dean's Renown from dark porous soil.
Taber of good shape and marketable appearance were chosen from foarteen other varieties, bat these when cooked were foand generally deficient in quality. As in the case of at least some of these, the reaults were, in all probability, the consequence of anipeness-their beat cooking season not having arrived-it would be premature to pablish their names, and thus imply, an later experience might prove, unmerited condemnation. Also, it should be atated, that atill more varieties afforded good cropa in the bulk, jet the tubers were more or less unshapely, and therefore not cooked. As there is reason to infer that thene were in a large degree prejadiced by the second wwelling after the rainf, which was more apparent in some soils and localities than others, the varieties are reserved for farther trial prior to the pablication of their names.
As only in one district (embracing Mitcham and Bandon Hill) exactly the same varieties were grown in four distinct kinds of ail-bog, cley, sand, and chalk, these trials obviously afford the beat basia for comparison as to the relative adaptability of the varieties to soilr of the natare indicated. The reanalta, both as to the character of the samplea in appearance, and their condition when cooked, are shown in the following summary :-

Sumyary of samples amd Cooking quality of Varieties grown under Identical Conditions in the
\begin{tabular}{|c|c|c|c|c|c|}
\hline Varieties. & Bogey Soir. & Clay. & Gravelly Sand. & Chalk. & Eemarks. \\
\hline Goldfinder & Sample: good Cooling: floury & Sample: good Cooking: moderate. & Not a good sample, ard not cooked & Sample: good Cooking: solid & The best on boggy soil. \\
\hline Supreme & \begin{tabular}{ll} 
Sample : good & ... \\
Cooking : Houry \\
\hline..
\end{tabular} & & \(\left.\begin{array}{l}\text { Sample : good } \\ \text { Cooking: floury }\end{array}\right\}\) & ...... & Good on bog and sand. \\
\hline Satiofaction ... & Samp'e: good Cooking: flaury & Sample : good Cookirg : floury & \begin{tabular}{l}
Sample: nood \\
Cooking: eolid
\end{tabular} & \(\left.\begin{array}{l}\text { Sample : } \text { : } \mathrm{lood} \\ \text { Cooking : firm }\end{array}\right\}\) & Good all round. \\
\hline Coloseal ... & \[
\begin{aligned}
& \text { Semple : good } \\
& \text { Cooling : watery ... }
\end{aligned}
\] & & & \(\left.\begin{array}{l}\text { Sample: good } \\ \text { cooking: very good }\end{array}\right\}\) & Good on chall only. \\
\hline Dreadnought ... & Sumple: grod Cookir a : too solid.... & -theo & Sample: good Cooking: too solid & ...io. & Third rate. \\
\hline Chamotlor & Sample : zood Cooking: rather solic & 1 +7-o.e & ..0.0.0 & \[
\left\{\begin{array}{l}
\text { Sample z yood } \\
\text { Cooliog: tair }
\end{array}\right\}
\] & Good on bog and chislk. \\
\hline Best of All & \begin{tabular}{l}
Sample: good \\
Cooking: tender
\end{tabular} & -eriono & .0.0.0 & & Best on bog soil. \\
\hline Windsor Cast'e . & ...... & Sample: good Cooking: floury & "..." & \[
\left.\begin{array}{l}
\text { Sarpple: good } \\
\text { Cooling: good }
\end{array}\right\}
\] & Good on clay and chall. \\
\hline The Brace & ...... & Sample : good Cookirg: fair & \(\left.\begin{array}{l}\text { Sample: good } \\ \text { Cooking: fair }\end{array}\right\}\) & - ....0 & Good on clay and sand. \\
\hline Heading Giant... & ...... & Sample : good Cooking : tolid & ...000 & .....0. & Fair on clay only. \\
\hline The Canon & ...... & Sample: good Cooking: dark & Sample: yood Jooking : solid & \[
\left.\begin{array}{l}
\text { Sample : good } \\
\text { Cooling : good }
\end{array}\right\}
\] & Good on chalk. \\
\hline Prime Minister . & - \(\times\). & \[
\begin{array}{ll}
\text { Sample: good } \\
\text { Cooling: dark } & \text {... }
\end{array}
\] & \begin{tabular}{l}
Sample: good \\
Cooking: dark
\end{tabular} & Cooling: too molid & Cooking quality inferios. \\
\hline Dear's Renown & ...... & ...er. & \[
\left.\begin{array}{l}
\text { Sample: good } \\
\text { Cooking: fair }
\end{array}\right\}
\] & \(\cdots\) & Fair on sand only. \\
\hline Congres .os & ...... & -0004 & \[
\left.\begin{array}{l}
\text { Sample: good } \\
\text { Cooking : fair }
\end{array}\right\}
\] & **** & Fair on sand only. \\
\hline
\end{tabular}

The coolving qualities of varieties that wore not grown for coor parison in the particular soils specified, may be seen on were not good enough for cookiug iad the particular foilentres (pp. 4, 5, and 6). The blanks in the table indicate that the samples

If the whole of the varieties could be cooked in January or February by the asme qualified official who exercised so mach kill and care in October, somewhat different results might be expected, for, as previously indicated, some of the most uneful late Potatos do not develop their bent qualities till they have been atored for aeveral weeks or month, and if some of the exhibited samples conld be apared from the analysis to which they (alao the soil) are to be abjected, a second trial as suggested would complete the tent of their relative culinary value. For the puppose of cooking, Potatos should be kept ia a dark place; for planting, they are better where light can reach them, but in both cases they must be kept cool pet abolately afe from frost.

\section*{Manure Trials at Richmond.}

The long drought was antagonistic to the inflaence of chemical manares, that the effect of the different mixtures were not adequately declared. Four varietien, twenty-five equal mized eets of each, weighing in the aggregate 3 lb ., were dressed with chemical at the time of planting. There was, for the reason atated, comparatively little difference in the resulte, and it will anffice to give the malleat and greatest yield in each case.
Renown (Webb's). -"No manure
25 lb

> Equal parts sitrate of soda and super-phosphate... ...

White Perfection.-"No manure"
A 1 potato manare

> Magnum Bonum.-"No manare"
> Equal part kainit, auper phosphate and nitrate of moda
> Chancellor.-" No manure "... Sulphate of ammonia 44 "
> 3 part kainit, 1 part each of aper-phosphate, and nitrate of ada

The mineral manure were applied at the rate of 4 lb ., the nitrogenous kinds at 1 lb . per rod. No farmyard manure was used.

WITH the last meeting of the
The R H. S. year, comes also the dissolution of the several oommittees. Prior to their dispersal the committees are asked to suggest the names of members for the reconstruction of the committees in the ensuing year. As there are no limitations, excepting that the new Members proposed must be Fellows of the Society, it is a misfortune when the members do not use their privilege, if only to neatralise the prejudice that some people still indulge in, that provincial interests are not sufficiently studied by the Society. Time and space are after all not quite obliterated, and a gentleman living in Scotland or Ireland can hardly be expected to attend so frequently as his brethren who live nearer the centre. But to suppose, as we sometimes hear, that provincial exhibitors, provinoial committee men, or provinoial exhibits are, apart from those considerations of time and distance that we have alluded to, in any wise differently treated from others, is a mistalie that cannot be too emphatically contradioted. A much larger infusion of new members would be desirable in all the committees, but it is difficult to see how this object is to be attained, particularly when the members of the existing committees do not more freely exercise their privilege of suggesting new members, and when the Council do not more rigorously enforce the principle of retirement of older ones by rotation.

Again, the amateur, as distinguished from the commercial element, requires to be mnoh strengthened. Perhaps this could be done through the mediam of the Scientific Committee, to whom might be allotted the task of dealing with plants andexhibits not directly of commercial interest. At present the Soientifio Committee con-


Fig. 118.- roddemania triloba: flowief of katural bre, oramar.colourmp.
sists too exclasively of experts who act as referees in chemistry, entomology, and other scienoes, but who are not specially interested in horticalture. It was not so in old days, when suoh men as Wilson-Saundrrs, Elwre, Boscawen, Mangles, Geo. Maw, Sir Charles Strickland, and other enthusiastio amateurs took part in the meetings. Another means of strengthening the societies would be the establishment of local committees, according to circumstances, in connection with the provincial hortioultural sooieties, such committees to be in constant touch with those in London, and entitled to send representatives to any of the London meetinge. In this way the deplorable waste of energy and opportunities manifested in local exhibitions misht be reduced, horticaltural progress, rather than the benefit of exbibitors, or the amusement of visitors, made the prinoipal object, and a higher tone generally introduced, whilst the wants and requirements of the provinoes would be better made known at headquarters than is the case at present.

But these are subjects which we cannot now further dilate upon. Our main objeot in alluding to the meetings of the Committees on Tuesday last, is to point out that in the case of the Fruit Committee, at any rate, the occasion was historio. On that day Mr. Barron retired from his position as secretary, a post he has held since 1865. Votes of thanks to the members of the several committees and to their respeotive chairmen and secretaries were matters of course; bat, in the case of Mr, Barron, warmer, more special feeling prevailed, which found partial expression in the sabjoined resolution, and which will be accentuated when an occasion will shortly be taken to show how thoroughly the horticulturists of the country appreciate the labours of \(\mathbf{M r}\). Babron. The resolation referred to was most fitly proposed by our leading Pomologist, Dr. Hogg, who traced the history of the Pomologioal Society till its absorption in 1865 into the Royal Hortioultaral Society, where it now flourishes as the Fruit Committee:-
Proposed by Dr. Hoga, seconded by Mr. J. Smith (Mentmore)-"This Committee desires to record its high sense of the valusble services which Mr. Barron has rendered to it daring his long occupation of the position of Seoretary, from which he is now retiring, and to congratulate him on the distinction of having been placed by the Council on the roll of Honorary Fellows of the Royal Horticultural Society. The Committee will also heartily weloome him to a seat at this table, and expresses an earnest hope that he may long enjoy health and happiness, and find many opportnnities for continuing to render distinguished servioe to horticulture and to the Sosiety."

Luddemania triloba (Rolfe, m. sp.). - Thir beantiful species is one of the recent diecoveries of Consul F. C. Lbemann in the Andes of Colombia, and it has been flowered and twice exhibited before the Orchid Committee of the Royal Horticultaral Society by Sir Travor Lawprever, Bath On the lat occaion (November 16) the fine plant from which our illuatrstion (6g. 118) wat taken was hown, and wat unanimounly wrarded a Firatclasi Certificate. Luddemania trilobs it a plant of conaiderable floral beanty, at well an one of remarlable botanical intereat. The plant had a pendalous inflorencence over 2 feet in length, and bearing thirty-three wax-like flowern of bright orange colour, the sepals being tinged with copper-brown, and the base of the lip, which is diatinctly threelobed, having a dark parple blotch. By reference to our illutration, it will be seen that the plant requirea to be grown in a bakket, if for no other reason than to allow of the proper diaplay of ite
inforeacence. The bestsituation for it is the inter-mediate-honse, and in its culture it has the same requirements as the Acinetas.

Our Almanack.-Secretarien of Horticultaral Societies and othern, are earneatly requeated to forward immediately, the dates of Show Fixtures and of Meetinge of Botanical and Horticaltaral Societies of any kind for 1896 , for insertion in the Almansck, to be pablished in our iunue for January 4.

Linnean Society.-On the occasion of the meeting held on Tharaday, December 5, C. B. Clarke, FRS., President, in the chair, Menars. Bernard Arnold and Rapert Vallentin were admitted, and the following were elected Fellown of the society: W. M. Cariaty, Rev. H. P. Fitzgerald, A. W. Geffeken, Rev. E. A. Peacock, R:v. T. R. Stebbing, and W. O. Stentiford. The president called attention to a portrait of the late Prof. Babington, of Cambridge, which had been lately presented by hia widow to the nociety. On the motion of Dr. Marie, seconded by Mr. A. W. Bennett, a vote of thanke to Mra. Babington was ananimoualy accorded. Prof. Stewart offered wome remarks on the types of the axes of certain Gorgonacem, in which he referred chiefly to the importance or otherwise of the premence of spicales in the axem, and exhibited the following apecies in illastration of his remarks:-Paragorgia arborea, Melitodes ochracea, Saberogorgia auberosa, Corallium rubrum, Caligorgia verticillata, Verucella guadalupenais, Iain hippuriv, Plexanrella crassa, and Eanicella verracosa. Some criticism wat offered by Dr. Marie, chielly in relation to the atructure of Gorgonia flabellum and Gorgonia metona. Mr. Martin Woodward exhibited and made remarks on a living apecimen of Oarawobs, which he thought should be regarded at a common Arooba attacked by a parasitic fuagus. Mr. G. C. Drace communicated a paper on a new apeaies of Broman in Britain, which was'said to diffor from othere of the genus in its infiorescence, having single-shoot stiff pedicel arising alternately right and left of the main rachis, each bearing at it extremity 3-5 sesnile, or, in some casen, shortlyatalked apikelet, giving an interrupted and compact appearance to the whole inflorescence, which is made up of two rows of cluatered groups of 3-5 spikelets. This peculiar featare being absent in its nearent allies, the name interruptus was proposed to diatingaish it. It appeared to have been described or referred to by Professor Hackel as Bromas mollis var, interruptue; bat Mr. Druce considered that it wat nefficiently diatinct to be entitled to apecific rank. He had found it growing abundantly in a field of Vetcher near Upton, Berkshire, and apecimens had been examined from Headington, Oxford, and Dartford, Kent. In a discuasion which followed, Dr. O. Stapf reviewed the literature of the nabject, and gave reasonn for regarding the co-called new species as merely an abnormal growth of Bromus mollis. Critical remarke were made also by Mr. H. Groves and Mr. A. B. Rendle, who were inclined to share the opinion of the last apeaker.
- An evening meeting will be held on Tharsday, Dec. 19, 1895, at 8 P.M., when the following papery will be read:-1., R. A. Bolpe. AL.S., "A Revieion of the Genui Vanilla;" II. E. S. Goopmer, F.L.S "Oa the Cephalopode collected during the Vogage of H.M S. Ineestigator."
national Chrysanthemum Society.-A weli-attended meeting of the General Committee took place at Anderton's Hotel, Fleet Street, on the 9 sh inst., Mr. B. Wrnse in the chair. After dealing with some correspondence, the Secretary reported that the amouat of prize-money amarded at the Dacember show amounted to £51 4s.6d. The awards of medals made by the Arbitration Committes to miacellaneous sutjacts at the asme exhibition were approved. It wasd cided to recommend to the snausl geaeral meeting the appointment of three auditors inatoad of two only, as at present; one to retire annaally, and be eligible for re-election for one year. This increase in made necassary by the growth of the oclety. The Secretary brought
up a reconmendation to the General Committee from the Jabilee Sub-committee, that for the future, in all clases in which Japanese Chryanthemama are required to be ahown on boards, the boarde for twelve blooms shall be 28 inches in length by 21 inches in depth from back to front; the holes for the tobes to be 7 inches apart from centre to centre; the height at the back to be 7 inches. This was carrit d. It will be underatood that as the size for a twelve-bloom board oaly is given, it is yet intended to apply to all larger collections. It was arranged that the annual general metting whould take place on February 24 ; the audit of the accounta being held a week previously. It was agreed, aubject to the approval of the managers of the Royal Aquarium, that an exhibition of early Carysanthemums, Dahlias, \&c., hould take place on Soptember 9, 10, and 11, add an early autumn thow on October 6, 7, and 8 , and the mid-winter ahow on Dacember 1,2 , and 3 It was also resolved that the anm of \(£ 20\) should be offered for early Chryeanthemams in September, and £10 toward the Dahlia prizen. The dates of the Jubilee exhibition are November \(3,4,5\), and 6. Five Fellows and thirty-four ordinary nembers were elected, bringing the total number of new members for the year up to 162. Three ocietien were also admitted to affiliation. A vote of thank was passed to the chairman for presiding.

The Botanical maqazine."-The dedica. tion of the annual volumes of our venerated contemporary has become a matter of much interest to botanista and horticalturista. This year the honoar falla to the share of Mr. Harry Bolus of Cape Town, whose work: on South African Orchid especially, amply entitle him to the warment compliment that his colleagues can pay him. The plants figured in the current namber are :-

Streptocarpus Wendlandi. Hort. Dammann, ex W. Watson, in Gardenerg' Chronicle, 1894, i. 590, t. 7447, a magnificent apecier, the parent of S. Dgeri \(\lambda\).

Aloe Luntii, Baker, t. 7448.-A highly intereating species, discovered in Southern Arabia by Mr. Lunt, Tae atems are short, bearing at the top a tuft of long linear-lanceolate recurved fleshy leaven, deatitute of spines at the margin. The flower-paaicle is loosely branched, and bearn numerous tubular pink flowers tipped with green. Each flower is about 1 inch long ( 25 cent.).
Buddleia Colvilei, Hook, fil, and Thome., t. 7449. The handsomest of all Himalayan shrabs, with pendalous masses of rose-purple or crimson flowers, relieved by the dark green foliage.
Bartholina pectinata, R. Brown, t. 7450. An extraordinary little terreatrial Orchid, from the Cape of Good Hope, with tuberous roots, an erect ilender hairy atem, only 3 to 4 inchen ( 80 to 100 mill.) in height, and a solitary roundiah thick leaf, spreading on the surface of the ground. The flowers are 2 to 3 inchen ( 50 to 80 mill.) across, with erect linear lanceolate greenish aepals, shorter than the very narrow erect whitiah petals, lip 50 cent. across (2 inches), fan-shaped, white, dividing about halfway down into numerous linear fringe-like apreading segments.
Musa rubra, Wallich, t. 7451.-A specio with a atem 5 to 7 feet high; lespes, 4 to 6 feet ( \(1 \frac{1}{2}\) to 2 met.), long oblong lanceolate acuminate. Bract bright red, with obtuse golden tips; flowers tubular, yellowith, 1 to \(1 \frac{1}{5}\) inch long ( 35 mill.) ; the femalen rather shorter than the males.

Gardeners' Royal Benevolent Institu-TION.-We are requested to atate that the committee have gratefally received the sum of \(£ 2573\). bdo, being a proportionate amount of the fand raised to perpotuate the memory of the late Mr. Wm. Thomson, of Clovenfords, to be invented and known henceforth sis the "Wm. Thomson Memorial Fund.

National Rose Society. - A copy of the balance-sheet, duly attented, has been sent to us. It show that the receipts, including balance from lat account of \(\mathrm{f} 72 \mathrm{1ls} 9 \mathrm{~d}\), amounted to \(\mathrm{E} 788 \mathrm{Os}, 7 \mathrm{Z}\). The balance et the banker's in £45 148. 3d., the total
xpenditure being \(£ 742\) 6s. 4 d. No lezs a sum than \(£ 250\) 10s. was diatrionted in prizes at the Cryatal Palace.

Handbuch der Praktigchen ZimmerGärtnerel" (House-Gardening).-We menuun this German treatise by reason of the excellent illustrations, which convey to the beginner at a glance a better notion of what to do and what to avoid than pagen of deacription. The anthor is Mr. Max Hesdöbfere, and the pabligher Robrrt Opprnheim, of Berlin. The woik is to be pablished in eight parte, at a low price.

Royal institution.-The following are the lecture arrangementa before Easter: Professor John Gray McKendrick, Profensor of Physiology in the University of Glagow, six lecture (adapted to a javenile auditory), on "Sound, Hearing, and Speech (experimentally illustrated); Professor Charles Stewart, Fullerian Profensor of Payaiology, R.I., eleven lectures on "The External Covering of Plants and Animals: its Structure and Fanctions; The Rev. Philip H. Wickateed, four lectures on "Dante;" Prufeasur H. Marahall Ward, Profeksor of Botany in the University of Cambridge, three lectares on "Some Aspect of Modern Botany The Rev. William Barry, D.D., foar lectares, "Master of Modern Thought-Voltaire, Rousseau, Goethe, and Spinoza;" Prof. C. Habert H. Parry, Professor of Musical History and Composition at the Royal College of Masic, three lectures on "Realimm and Idealism in Masical Art" (with musical illastrations); The Right Hon. Lord Rayleigh, Professor of Natural Philosophy, R.I., six lectures on "Light." The Friday evening meeting" will begin on Janaary 17, when a discourse will be given by the Right Hon. Lord Rayleigh, on "More about Argon;" aucceeding discourses will probsbly be given by Professor Bardon Sanderson, Mr. W. S. Lilly, Dr. John Marray, Mr. J. J. Armistesd, Dr. Edward Frankland, Mr. A. R. Binnie, Mr. Sidney Lee, Profemar T. R. Fraser, Profensor Dewar, and other gentlemen.

Early Wallflowers.-We haverecoived from Mesars. Sutton \& Sons their Earliest of all Wallflower gathered from plants sown as recently as lat May. The planta have already been flowering aince the middle of September, and are still full of bloom and bad, and should the weather not prove too severe, will continue to jield acceptable gatheringa throughout the winter monthe, burating again into new vigour and beauty at the first touch of apring. Tise value of such a pretty spring flower in December mutt be apparent to all, eapecially growers for the market.

Fruit and Market Gardens.-The following is the acreage under mall fruit crops as given in the Agricultural Retarns for 1895, published by the Board of Agriculture:-England, 68,122; Walev, 1,175; Scotland, 5,250. In each case, but especially in England, there is a considerable increase in the area devoted to small fruit cropa an compared with that noted in 1894. The total area of land and water in Great Britsin is 56,771 728 acres, and in Ireland 20706,258 . Kent has 22.272 acres under fruit, a alight increane over 1894. Middlesex continem nearly stationary with 3982 acres; Lancathire has 2517 ecres against 2,396 last year; Surrey 1.468 instead of 1,331; Worcester, 3.144 al compared to 2,508 . The total area used as orchards in 1895 is given at 212,963 acres in place of 208,82I in the preceding year. The largest orchard areas are, in Davonehire, 26955 ; Hereford, 26538 ; Somermetshire, 24520 ; Kent, 23260 ; and Worcester, 19,665 acres. Market gardens occupy in England a total area of 85,398 acres, an increase of more than 4000 acres over the preceding year, Kent has far more market gardens than any other county, the acreage being ratarned at 12.516 acren ; after which comes Middlesex, 9,410; Bedford, with 7,274 acres; Worcester, 5.586; Essex, 4,740 ; Sarrey, with 3,688 . The remsining counties bare all a very much maller area devoted to market gardeniag.

Pierre Notting.-The death of this famone ronarian, of Laxembourg, is annonnced. According to the Revue de l'Horticulture Belge, M. Notring was is hia acventieth year, and died on November \({ }^{2}\)

The Publisher of the "Gardeners" CHRONICLE."-We greatly regret to announce that this Joarnal in no longer to have the aervicen of Mr. A. G. Martin as publisher, consideration of health necessitate his reaidence in the Tranavaal or other dry climate. Mr. Martin leaves with the aympathy and goodwill of all his colleagues, who truat that he may speedily regain hil health and quickly obtain some anitable occupation. Mr. H. A. Stratton, who for many years has been a trusted assistant, will, in future, undertake the dutie of pablisher.
horticultural Progress in Holland.Great activity prevail just now in Holland in the matter of technical education. A chool of Horticulture is eatablished at Wageningen; a laboratory for the atudy of Vegetable Pathology, under the direction of Profearor Ritzema Bos, has been foun led at Amsterdam; a new horticultural joarnal has lately been entablished; and the dibum Van Eeden is to be continued as the Bulbilegium Baarlemense, onder the aunpicer of the Society of Balb Caltivators.

Begonia Froebeli ingomparabilis \(\times\).-The invertion of the following letter from Mr. BenNetT Pö̈, enable as to correct one or two miaappreben sions relating to this fine plant, see p. 680, fig. 112 , Mr. Bennett Poë, it appears, wat not the raieer of the plant, but Mr. Froeber, of Zarich. The fiowern, instead of being only 1 inch in diameter, measure upwards of 3 inchen:-
"The introduction many years ago by Roezl of a tuberous Hegonia from Ecuador, dedicated by Alphonse de Candolle to M. Froebel, of Zurich, was an acquisition to growers of tuberous Begonias. for its blooms, though not large, were very brilliant. Some years later, another tuberous Begonia, winter flowering species, was introduced from Peru, Begonia polypetala, perhaps the mont distinct and remarkable species yet introduced. M. Froebel, of Zurich, emploged these two species in the production of the atately and handsome hybrid figured last week, which having taken in general appearance so markedly after the seed-bearing parent, was sent out under the name of Begonia Froebeli incomparabilia \(x\). But happily, in the time of flowering, it takes after the pollen parent, and produces its brilliant blooms in the winter months, whea they are far more valuable and appreciatod. I have, grown this Begonia since 1880, the year it was nent out, and have advoested its claims in the gardening papers both then and sabsf quently, and again as recently as this autumn, for it has sabs quently, and again as recently as this autumn, for it has
never failed to be a remarkable plant each winter. It would oem to be quite unknown, from the fact that it came as a surprise to those present at the meeting of the Royal Horticulcural Society on November 23 . I have frequently wished I could show it, but until recently my garden was too far distant to evable me to do so, as Begonias are not plants that will besr a jurney of 450 miles before being placed on the exhibition table. A word as to its culture, which is of the essiest. The tubers are potted about August, when they will mo longer remain dormant, and are placerl in an ordinary span-roof greenhause where Nerines and varions other plants flower, and there they have been in blossom since early in October, and will continue some time longer, judging by the sscession of flower-stems to follow. J. T. Bennetr-P.

A New Phabe in horticulture.- a corrempondent of the Times calls attention to what he calle a "totally new departare." Naturally curious to know what this could be, we read on to fiad that the new departure consisted in retarding instead of forcing certain plante. Nuthing very new in this, urely. The application of the practice on a large cale to the Lily of the Valley has reaulted in an average of 95 per cent. of flowera from the end of antuma up to Christmas, instead of 50 per cent. obtained by forcing.

The Thames Embankment. -The "layingout" of the enclosare, east of Charing Cross Station, has been unatiafactory from the firat. The recent erection of the band-atand made thinge worte-the dotting of some miserable Eaoaymus on the green lawns seemed to ahow how little the planter valued the effect of space and "repose" afforded by the turf; and now, quite recently, some flower-beds of the moat extraordinary and meaningless pattern have been carved out. There is plenty of time to alter thene, and perhap something may yet be done to improve the general disponition of the lawns, and render them appropriate to the outlines of the enclosure.
"A History of Gardenina in Enaland."
The Hor. Acicta Amemers's wonk under this title
has been published by Mr. Quabitce, of Piccadilly \({ }^{\circ}\) This is not a book to be dismissed with a mere mention. It is a atandard book, likely to become classic. We hope shortly to give a notice of the book at greater length than we are now able to do.

Stock-takina: November.-Once again the trade and navigation returns bring au pleanant new. The importe and exports for the pat month of November are greatly in excens of thone for the corresponding month in 1894, and the eleven montb:' totala are aluo a cheerful contrast to the figure set down for comparison in lant year's record. The excen of importe for the past month is \(£ 3.737,012\); for the eleven month juat finished the increase is \(£ 4320,557\), as compared with latt year's record. The uanal extract from the monthly ammary is as follow:-
\begin{tabular}{|c|c|c|c|}
\hline Imports. & 1894. & 1885. & Difference. \\
\hline Total value of imports & \[
\underset{35,234,149}{\stackrel{\swarrow}{2}}
\] & \[
\underset{38,971,161}{\mathscr{L}}
\] & \[
\begin{gathered}
\mathbf{\boldsymbol { L }} \\
+3,737,012
\end{gathered}
\] \\
\hline \[
\begin{aligned}
& \text { (A.) Articless of food } \\
& \text { and drink - duty } \\
& \text { free ... }
\end{aligned}
\] & 11,539,298 & 12,858,182 & +1,188,884 \\
\hline (B.) Articles of food and drink-dutiable & 2,499,005 & 2,602,113 & +102,508 \\
\hline \[
\begin{array}{cc}
\text { Riw materials } & \text { for } \\
\text { textile } & \text { manufac- } \\
\text { tures ... } & \text {... }
\end{array}
\] & 6,835,64 & 7,700,372 & +864 728 \\
\hline Raw materials for sundry industries and manufactures ... & 3,683,793 & 4,103.954 & +40,159 \\
\hline (A.) Miscellaneous
articles
... & 1,489,780 & 1,485,178 & -4601 \\
\hline (B) Parcel Post & 88,420 & 83.461 & +17.041 \\
\hline
\end{tabular}

It in worth noting that, with the trifing fall of \(£ 4,604\) under the heading of "Miscellaneous," the increase extend to every section into which the returns are divided-what is "minus" in fruits and vegetables being made up in other sub-mections of the daty-free articles of food. It is long since such a atate of thinge was placed to the credit of imports. A second great acheme of road construction will shortly be carried out in Earopean Rasia, nnder the apecial aperviaion of the Department of Road and Bridgen-to connect producer and exporter.

We fancy that Parish Councila could be made of immense use in bringing mall growerf, as well as otheri, into complete touch with all consuming centres. It is fair to note here that the Board of Trade officials appear to be in earneat reapecting help in the matter of light railway-the President of that department, together with an engineer of repate, having been on the Continent atudying the system preparatory to setting to work on existing materials and Parliamentary action. As to our unual extracts on the imported fruite, rooti, and vegetablet, we give the following:-
\begin{tabular}{|c|c|c|c|}
\hline Importa. & 1894. & 1895. & Difference. \\
\hline its, raw :- & & & \\
\hline Apples ..0. ...bush. & 1,178,585 & 589.724 & -549,871 \\
\hline Cherries ... ... , & ** & \(\ldots\) & ... \\
\hline Plums & 1,533 & 330 & \(-1,218\) \\
\hline Pears & 59.331 & 22.458 & \(-36,875\) \\
\hline Grapes ... ... & 100,691 & 138,888 & +87.974 \\
\hline Unenumerated & 58,768 & 45,933 & -12,805 \\
\hline Onions & 507,601 & 609,888 & +11,787 \\
\hline Fotatou ..es ... owt & 151,05 & 83,181 & -88,834 \\
\hline Vegetables, raw, unenumerated ... ... value & \[
\underset{68,531}{\mathbb{E}}
\] & \[
{ }_{71,653}^{a}
\] & \[
+\frac{\mathscr{L}, 105}{}
\] \\
\hline
\end{tabular}

It will readily be observed that "minus" has it-or, rather the Britich prodacer. It would be pleasant to record some new industry in connection with Apple production; pouibly that will come in time. The disponal of this fruit in Brittany seem: beyond the powern of railway companies; there Apple-waggons line the roads to the railway atation, often weeking in vain for carriage, sometimen waiting for a day or two until the goods' entrance opent to them. The wonder is expressed at to whether there will be any reduction in the price of cider in the cider-conoming diatrict of Fravep. There doen
not appear to be any boycotting of that indastry on the other side of the Chenvel, an reported for this country by jour correspondent, "E. \(\mathrm{C}_{0}\)," in a recent number of the Gardeners' Chronicle. And now an to our-

\section*{Exports.}

These foot up for last month the handsome total of \(£ 19540333\), or an ircrease of \(£ 1457246\) over the total for November lat jear. Tbere are decrease in the value of live aximale, in raw material, and machinery; but the total is not very great. The increase in the eleven month just now ended in putat \(£ 8,295,982\). With a good earplas in the Exchequer, and a eettlement on the Arcerican money quention, we can afford to look ahead with confidence. Notwithatanding the import-duty of 78 . per ton on coals entering Rusian posts, it would neem that the demand for Ruanian coal has not been increased, or the consumption of the Euglisharticie reduced. By-and-by, when the promisedroadare made there may be a reduction in the cont of the native article. In conclasion, it may be poted that complainte continue to be ent in by our Conala as to the picking up of some of our trade by "the foreigner," who is keen to note exactly what is wanted in foreign countries, and send it out. We require an extension of our ejetrm of technical achools; we have done pretty well, but very much more is required; and it is about time that the ovce much-talked-of Imperial Institute hould give more reaton then it now does for it exinteace.

Dundee Chrysanthemum Society. - The annual meeting of the Dandee Chrymathemum Society wat held on the 5th inst., Mr. D. Storris in the chair. The Secretary (Mr, W. P. Laird) in bis report referred to the question of obtaining a Corporation Cap for competition at the annaal exhibition of the Society, and aid though the request which had been made to the Council had been refused, he had hopes that they would yet have a Corporation Cap. The Treasurer (Mr. D. Croll) reported that the expenditure for the jear wat \(£ 6695\)., and that there wan a debit balance of \(£ 610 \mathrm{~s}, 8 \mathrm{~d}\). They had, however, £27 4s. 1d. ntill at their credit. The deficiency, he explained, was accounted for by the state of the weather at the annual ahow, which brought about a reduction in the admisaion money. The reports were then adopted, and cffice-bearer for ensuing year elected.

Cheghunt, Wormley, and District horticultural Mutual Improvement Society.The unual fortnightly meeting of this society way held on Thurnday, Dec. 5 , at Turnford, upwards of a hundred members being present, H. N. Busirex, Eaq., preaiding. The secretary, Mr. W. L. Yates, having read the minates of the previous meeting, Mr. William Harbison, of the Tufnford Hall Nutseries, delivered an inatructive lecture on "Grape Growing for Market," dealing exhautively with the sabject, including the early history, introduction of the Vine to this country from Avia Minor; propaga. tion, grafting, planting, manuring, fertiluation of the flowert, and the entire rontine of cultivation under glase of all the more popular varietien of Grapes. The method of packing for rail and Covent Garden market were fully dencribed and illantrated. At the close a dircunion was initiated. On the motion of Mr. W. H. Miles, afconded by Mr. Rolfes, a hearty vote of thank way accorded Mr. Haressoz for hia lecture. The next meeting will be held on Dec. 19, when Mr. W. Caslea will contribute a paper entitled "Bee-keeping, and ite relations to Horticulture"
the People's Palace horticultural SOCIETY. - A meeting of the Commiltee took piace at the People' Palace on the 7 th inst., Mr. E. Sitea in the chair. A very encouraging report wat received from the judges who made the award to the greenhouses in October last, they having mado an inapection of nearly forty in the East Ead, and they reported that the housen, although moetly of howe construction, were clean, and the condition of the plants generally iatiofactory. The Curynuthemum how held on Oct. Sl and two following day?,
atirely consisted of plante and cut flowers shown by members; and the excellent quality seen in many of the plante and blooms was very gratifyling. It was resolved that three exbibitions be held in 1896-a spring show on March 26,27 , and 28 ; a aummer show on June 25 and two following days; and the Chryanthemum show at the end of October, or during the second week in November, a date to be fixed later on. A series of monthly lectares of an elementary cbaracter has been arranged, and a montbly meeting of members also, at which they will be invited to contribute plante, \&c. It was also reported that the spring and atamn shows had proved financially anccesaful, but there was a small lose on the aummer show, owing to the stormy character of the weather daring the time it was open. It is also in contemplation to attempt some modification of the thickly populated arpas known at congested diatrictr, thoagh great difficalty is experienced in accurately defning the asme. It may be atated that the rociety supplies its members with bulb, seeds, \&c., at cost price, and to the moat needy cuttings are supplied free of cost as far as they can be obtained. The subucription of the members is quite mall, but donations from varions ladies and gentlemen greatly asnist the committee in their work. A cordial vote of thanks was given to Mr. Sara for presiding.

On Saturday evening lant Mr. J. W. Sanders, the editor of Amateur Gardening, gave a popular and interesting lectare on "How Plants Grow," before a very large audience of members and friends of the People's Palace Horticultaral Society, Mr. Riceard Deas, the horticaltaral adviser of the society, presiding. The lecture, which was purely extempore, and delivered in an eacy, converrational atyle, wat illuotrated by a number of diagramp. The greateat interest was shown in the sut ject, and at the close of Mr. Sandins' addrest, many queations were pat to him, and an enthusiantic vote of thanke was accorded to hifo. The next lecture will be by Mr. Richard Dran, on "Dried Flowers for Chriatmas Decoration."
"The Autocar."-This is a new journal, published by Iliffs \& Son, Coventry, and 3, St, Bride Street, Ladgate Circue, E.C., in the intereate of the mechanically - propelled road-carriage. In thene pagen the superiority of automatic carriagen to thone moved by horse-power is warmly arged. There are illustrations ahowing various aelf-propelled vehicles, and whether or not these are ever largely used in our atreets, they are at least appropriate in certain instances. The Autocar does not deal with any special make of vehicle, bat with all driven by machinery, whether carriage, waggon, tram, or bicycle, and whether the motive-power be afforded by ateam, electricity, hot-air, or petroleum.

Aubtralian Fungi.- From the Department of Agriculture, Victoria, comes a aytematic arrangement of Australian fangi, by Mr. D. McAlping. The volume consiatu of aseries of tables, containing condensed information, nsmen, authorities, habitats and characteristics of the several species, which should prove most aseful both on account of the importance of the uabject treated of, and the clearnees with which the information concerning it is here given. The author inclades in his treatios a "host" index, and a list of work apon the aubject.

Apples in Paris.-The glat of Applen from Normandy is so great that prices have fallen to a very low figare. It is many jears aince the crop of Apples in the province hat been so large, and the cultivatore are at a lose what to do with this auperabuadance. Some of it might be made into cider, but not every variety is fit for that purpose.

\footnotetext{
Moss Litter ano Peat Industrieb, Ltd. A company (headquarters, 32, Qaeen Victoria Strest, R C.) has been atarted which bears the above title, and hat for object the introduction of fabric: made from mone litter and peate It has been diecovered that from theme materiale not only \& valuable sborbent antiseptie wool for argical drewinge can be made, but also textilee of various grades, ranging
}
from coarse blankets to the fineat cloth. Another property posseased by peat is that, when ubmitted to certain preparatory processes, it becomes hard as iron, and takes a good polish. Uader yet other treatment it can be developed into tough white paper. These several valuable uses for a raw material hitherto comparatively neglected, have already met with conaiderable appreciation, and optimiste hope that (largely through the intervention of this company) Ireland may in the immediate futare reap aubatantial benefit from her atores of yet unworked treanare.

Eucharib arandiflora (syn. E. amazonica). -Mr. Osman eende usfrom Brentry Gardens, Weat-bary-on-Trym, a fine photograph of this plant, which shows how well the plant is grown in that eatablishment. The photograph shows twenty plante beariog about 1000 flowers-the third crop this year, Had we not already figured fine specimen of this plant, we should have been tempted to reproduce the illustration with which \(\mathrm{Mr}_{\text {。 Osman }}\) has kindly faraished us.


FIG. 119.-
geed bearivg ghoot of cepeliotaxus pedumculata SEEDS BERRY-LIKE, OLIVE-COLOURED. (SEE P. 717.)

The Yorkshire College, Leeds - The Department of Agricultare of this College, which is affiliated to the Victoria Univeraity, has pablished ite fourth annaal report, which is of a most aatisfactory character. In addition to the two yeara' training, the College providen for special lectarea in the country districta on horticultaral and agricaltaral suljocts, the attendance being, generally spesking, good; in nome cases the average attendance was as many as 350. Some of the villagersa minority we are glad to see-" refused to try to learn anything.'

Technical Horticultural ingtruction.That excellent gardener, Mr. J. Crook, of Forde Abbey Gardens, Chard, occasionally places his aervices at the disposal of the Somerset County Council, and has just recently completed a course of garden lecturer at Crewkerne. His ayllabus neems to have been a comprehensive one, as it includes two lectares on frait culture, dealing with hardy trees, anch an Apples, Pears, Plumu, \&cc., and also with bush and groand fruits. Two lectures were devoted to vege-
table culture, including the most prominent cropi, one to the preparation of the soil, manuring it, \&c., and one to flowers and their calture. Such a course as this may well be given in many localities, for there is ample room for wider instruction in even elementary gardening.

Scottiah Horticultural Aesociation, Eoinburah.-Oase of the largeat meetings of the above society gathered at their rooms, Sbo Andrew Square, on Tuesday evening, the 3ed inst., when Mr. Mazcola Dons read a paper on "Gardeners and their Employers," as given before the Royal Horticaltaral Society. The paper wat well recaived by the membera, and a diacasaion generally agreeing with the pointe laid down by the writer followed. After the reading of thin paper, the treasarer, Mr. Alex. Macerenzie, atated that although the anfortunate weather might have been expected to reduce the financial success of the last Chrysanthemam Show, the balance in hand proved to be considerably over £100. Mr. D. Murbat, the president, occupied the chair, and a motion of giving the usual ubscription of \(£ 5\) each to the Gardenera' Orphan Fand, and to Edinburgh Infirmary, was received with general satiafaction.

Victorian Fruits.-It is not very much that our friends in the colony of Victoria can send us, but what they forward is picked and sent on in as good a condition as that ment by most other sender -the quality being of a high order. It is, therefore, satiafactory to be able to atate, on the most trustworth authority, that, the account being made up, a fairly remanerative profit has been found to reault from the ventare. This is the more atiafactory because continued effurt after improvement will most asuredly follow, which bat a few years hence will be pleasingly illustrated in our principal markets.

Fruit-growing in Britibh Colombia. There is not nearly enough trait-trees grown in the State to meet the home demand, and most of the trees plated were imported from Oregon and Washington, or from the Eatern States and Oatario. This is not because good nursery atock cannot be prodaced; on the contrary, as fine treen can be grown there as in any part of the world. Peara are not so satiafactory as other hardy fruit treen. Here there is an opening for gardenera, mall or large capitalists, and others in need of an outlet for their money, experience, and energy.

Prospects in Natal. - The completion of the Transvaal-Natal Railway has undonbtedly opened up a fair prospect for those connected with the land and itm products in Natal. The railway runs from Darban through the Transvaal, and it is believed that all vegetablem and fruit grown in the Britiah colony will find a ready wale in the land of gold and diamonds. The Government Agent in London informed us the other day that a Natal farmer's agency is on foot, to which farmer can aubmit their produce with the knowledge that a sale will be effected in a business-like manner, and with the certainty of prompt payment." He also atated that the fibre induatry is receiving attention in Natal. Arrangemente are being mado that some 500 acres ahall be planted with Agave in the lower Umzimkala diatrict. All this look as if the colony was waking up, and juat at the right time.

Hooken's "ICONE8 Plantarum." - This publication, though everely botanical, frequently contains references to plante which are probably dentined in the fature to become of horticultural importance. The latt isnued part (vol. v., part 1, November, 1894), contain figure and descriptions of everal new Dipterocarpa, by Sir Dietrice Brandis. Petroconmea grandiflora, Hemaley, a Wentern Chinese Gesnerad, is a charming little tufted plant with much of the habit and appearance of Saintpaulia ionantha, but the leafatalke are longer than the blade, not to apeak of other characterf. The flowers are dencribed as cobalt blue. It should be looked after by our collectore when they have
time to look after nomething besiden Orchidn. Dr. STAPF dencriber several new Melastomadr, some of which mat be worthy of introduction. Mr. Baker dercribes and figures ( 0.2423 ) a curious little Aloe from Natal with linear apotted leaven, margined with mall whitish pines.

New Garden Plants of the Year 1894. -As an appendix to the Kew Bulletin has been publiohed, an alphabatical liat of plante newly-introduced into British garden:, compiled from the meval horticultural journaln of Earope, and from nome of the nurserymen's cataloguen.

Epoketh of by M. Rodigas, Bulietin ds Arboriculture, \&c.
Novemter, p. 337.
Polygonum Bildschuanicuar, Regel, Le Jardin, p. 231, 1895.

Riceardia Pentlandi, Garden, November 2.
Rivers' Transpareat Gage, Bulletin d"Abboticulture, \&c, November.
Rose Marchioness of Londonnerry, h.P., Rosen Ze tung. September, 1895.
Rose Mosella, \& Polyantea, Rosen Zeitung, September, 1895.

Saccolablum ampullaceum, Lindemia, t. cdixixy.
Selenipedium Dalleanum, André, Revu Horticole, December 1 ; see also Kev. Hort., 1895, p. 134.
Vanda Parishit vir. Marbiottiaka, Rchb. fo, Lindenia,
t. CDLXXXVili. t. CDLXXXVIII.

Viliarsia mymphecoidrs, Garden, October 19


Fig. 120.-crphalotaxus drupacya, a, \(\mathrm{a}_{1}\), sfotions of seeds; co, lrafi

\section*{PLANT PORTRAITS.}

Dichavamda viohacesa, Revue de l'Ho:ticulture, Belge, Dicember.
Brasil Mrs. Josepil Eliat, flower red, atriped and marbled with white, Il ustration Horlucole, November 15, t. 45.
Cathertum stuperduy, Cognaur Lindenia, to cDLexsfil. lulopha congornsis, Cogniaux Lindenia. to colexxpr. Kituve Biondr, \&p. no, Baroni, Nuovo Giorn. Bot. It to, Limber, 1893, t, niii
Lorember, 1895 , pese, n. sp., Baroni, Nuovo Giorn. Bot. Ital., rovember, 1895, p. 333, t. जn.
Rortive sulpmureum, Baker (Bot. Mag., 74b7), Rivue Xrater December 1.
 Odomtoelobsum citrosmum, Reowe de l'Horticulure Be'ge, Decomber.
PEMBITUM RUPPELLLuTUM, an ormamental gran, highly

\section*{CEPHALOTAXUS DRUPACEA.}

We are glad to have the opportanity of figuring the frait or rather berry-like needs of Cephalotaxus drupaces kindly forwarded to us by Mr. D. Crombie, from the garden of Lord Powericourt. The eeeds at here figared, taper at each end, and towards the base are narrowed into a neck-like proces unlike anything we have yet meen in the genus. An to the plant itself we may recall what was said in these pages on January 26, 1884, p. 113.
"C. drupacea (fig. 120), in Britiah gardens is the dwarfent form, forming a low banh with greeniahyellow ahoota and leaven, The latter are very gene-
rally apturned, and thin not only when the flowtre are being produced, bat alto on the sterile branches, so that the two row of leaves tha form a trough along the apper aide of the branches. The individual leaver do not greatly exceed 1 inch in length, and are about \(\frac{1}{6}\) inch in width, alment perfectly linear and straight-nided, sarely falcate, abruptly pointed at the tip, rounded at the bave, with a very short petiole. The male catkina are ataked, each atalk immediately after it origin in the axil of the leaf being abruptly bent down. warde out of the way of the leaves. The atalk of the male catkin is about is inch long, about the aame length as the minate globose catkine themmelver, and covered with overlapping ovate acate bracta which pass into the acale of the catkin. The acales of the terminal leaf-bud of the whoot are almont all distinctly acaminate. The reed-bearing pedancles in the native apecimen are approximate, and the lerry-like zeed itself ovoid. We have a rough thetch of the aeed of this plant, derived probably from the garden of the late Sir Frederick Pollock, at Houdalow. It is ovoid, and rather pointed at both ends, amaller than in pedunculata proper (tee fig. 119). In Japan, where it is often cultivated, it is anid to form a opreading tree of mall atature. No Chinese apeciment are in the Kew Herbarinm; bat Mesart. Veitch in their Manual, mention it at having been discovered in North China by Mr. Fortane in 1849, althoogh Fortane doen not mention it in his commanications on the sabject in this journal, and we suapect his plant may have been the true C . pedunculata."

Van Tieghem (Bull. Scc. Bot. France, 1891, A pril 24, p. 184), point out a character which is peculiar to this genus, and that is the existence of a resin-canal in the centre of the pith. This character is so easily observed that it is ueful to the gardener, who can thut without aceing flowert or fruit, immediately ascertain whether he has a Cephalotaxus to do with by cutting a amall portion of a branch and observing whether there is a resin-canal in the centre. Oa a croas-cat the canal, of course, presents the appearance of a blackish dot in the centre of the pith.

\section*{Notices of Books.}
ingects and Ingecticides. By Clarence Weed, D.Sc. (Kegan Paul, Trench, Trü jner, \& Co.).

Tris is a second edition of a book that has already received favourable notice in these columne. It is written by an American profemsor, bat much of it in applicable to the old coantry. Here, however, we are exceedingly slow to adopt the method recommended by experta; perhap because it in feared that the trouble and cont would be excenive as compared with the value of the realts. Bat how can we know this without experiment? Whilat the Uaited; States, and oven Earopean countries, can counti, experiment atationes by the acore or by the huadred, we in thin country ahould have a difficulty in employing the finger of two hand in computing the number of similar inatitutions, nor have we a single State entomologiat.

Aariculture: Practical and Scientific. By James Muir. (Macmillan \& Co.).
This in an introdnction to the atudy of the principles of agriculture, and gives much nerviceable inforsation a to the application of thene principle to practice. We find many details given an to the natare and ave of manure and eewage, which the reader has unally to dixinter from volaminous trestiver. Manures as at present used are employed wastefully, because they are "sown" or dug in at atated times by the calendar, rather than in accordance with the need. of the plant at different periode of ite growth, and in relation to the local and semonal conditions. Daring the greater part of it exiatence, water forms the bett manure (if we may 0 call it) for plants. The atimulant and natritive abatance which conatitute manures are only required in relatively amall amounte, and at particular atages of growth only.

Gardenere, in their management of planta under glase, anderatand this better than agriculturista do, but it ill, of courie, an eatier matter for the gardener than for the farmer to regulate the amount and to time the applic stion of manare; bat making all due allowance, the farmer might learn a good deal from hi brother in the garden.

The Potato in field and Garden. By W. J. Malden. (London: W. A. May, Mark Lane Express Office, 150, Strand.)
"The introdecion of better varieties of Potatos, the adoption of more economical methode of dealing with the crop, the discovery of mean for keping in check diveases of plante, have made Potato growing an art which can only be auccessfully carried out where the farmer or gardener is abreast of the timen vith segard to information on all these pointe, as kome and foreign competition are very atrong. The want of a more perfect knowledge in individual casea cause a very large portion of the crop to be grown uoprofitably. Toose who thoroughly anderstand the subject, and cater for the best marketn, fiad it a profisable basiness, although they may not be otherwise better aituated than their leas auccesaful neigbbours." With the sentences \(j\) ant quoted this little book opens. They at once attract our ajmpathy, and we turn to the ancceeding pages to see to what extent the author act up to his own standard. The inveatigation is so ratiafactory that wa may clas this as one of the beat booke on the undjet, and in some pointe the information it containe in more varied and more "abreast of the times" than in any work of mimilar character that we can recall. The work ander notice is divided into ten section, the first of which deale with the crop generally, incladiag its introduction into Firope, new varietiez, \&c. O.her nection: deal With soils, planting, manuring, seed varietien, treatment during growth, disesses of the crop, digging Putatos, and the cost and feeding value of the crop.
We are diepused to think our author under-eatimates the \(\begin{aligned} & \text { iut of high-m solding, as recommended }\end{aligned}\) by Junen for the mitigation of the effect of the Putato diefanp. We have ns experience of this as practised on a large ecale, but for amall gardens and for cottagera we should recommend the sytum an preferable to the une of the Bordeaux Mixtare. Is in mach mora manageable, cheaper, and equally, if not more, ffisient. Another adranlage it has in that where this plan is practised, the rowa are not placed no near together as naal, nor are the plants in the rows so clone. \(O\) \& course, a cood deal depends on the habit and mode of groxth of the variety, but in any case the greater the apace between plant and plant, the lean is the risk of infection.

Handzook of West American Cone Bearerb.
Mr. J G. Lemmon, who hat had euch excellent opportunitie for atudying the Californian Conifers in their native baunts, and whose zaal and enthusibum hive enabled him to turn them to auch good accoant, has pabliahed a pocket edition of his deacriptive notes on the Conifers of north-went America. It is an excellent little book, illustrated by mall photographe. If is written more especially for those who are not botaniats, and en attempt is made to introduce good English names in place of Latin deaignations. We sympathice with Mr, \(\mathrm{L}_{2}\) mmon' avpirstion, but we cannot congratulate him on the auccess of his attempts. To us it appears that much names es "Evergreen favciculars," "Broken cone Lamber Pinen," "Pendent Fraited Pendenten," "False Hemlock Spruces," "Erect-fruited Solitares," are no improvement on the more terse Latin epithets. People who are really interested in botany soon casee to find the language an impediment; it is not worth the trouble to coin new words for those who care for nothing save externals, oo far as plants are concerned. The present little book may bo had from the author, Tolegraph Avenue, North Oakland, California.

Irrigation Fabmina: A handbook for the practical application of water in the production of crops. By Late Wilcox; 95 illastrations, 312 pages. (Now York: K•gan Paul, Trench \& Trübner.)
The author of this work is a practical man, who has opent the greater portion of his life in irrigation work, and is a recognised authority in the United States on the whole abjact of irrigation from a practical atandpoint. The new manual containa twenty chapters and ninety-five illustration. This book is primarily written for and adapted for western farmers and farms, but is equally valuable to farmers in the south and other sections of the Uaited States, and other countries. It ia divided into twenty chapterm, each of which is a condensed treatise on ite apecial topic. The concluding portions of the book give a review of the common law of irrigation, and a glosary of irrigation terma. The other chapters are devoted to the consideration of the following topics: Advantages of irrigation, relation of coils to irrigation, treatment of alkali, water apply, canal conatruction, reaervoirs and ponde, pipes for irrigation parposes, flames and their atructure, duty and meamarement of water, methods of applying water, irrigation of the garden, irrigation for the orchard, the vineyard and amall fruite, alfalfa, windmills and pumpn, devices, appliancen and contrivances, ab-irrigation and sub-soiling.
The book is, as we have aaid, apecially adapted for certain portion of the United States, bat it will be very serviceable in many of our coloniea and in India, on which account we recommend it to the notice of our colonial reader. The practical detaila of construction, \&c., will be found very aerviceable.
Fur greenhouses a plan is adopted of having raised beds in which rown of 21 -inch drain tiles are placed at about 18 inches apart, and at a slight alope, so an to ensure a anffisient fall and obviate atagnation. The lower ende of the pipes prij ct beyond the bed, so that they can be closed during the time that the water is being poured into the pipes at the other end, and opened a'ter a time to allow of the pansage of the arp'us water. This plan also almite of the aëration of the moil. Whether the pipes would not aoon get blocked with roots is a matter to be determined, bat if they did, the evil could be remadied without much inconvenience.

Analytical Key to the Naturil O dera of Flowering Plants. By Franz Thonner. (S wan, Sonnenschein \& Co.)
A series of tables intended to facilitate the detection of the neveral natural orders of plants by the atulent. To us they seem more likely to be useful as fornishing hints to an expert. For instance, it in very misleading to a beginner to city at the characters of Pasiflorez (ree p. 113), "Stamen 10 ; ovalea parietal. Shrubs or trees. Juice milky. Calgx 5 lobed. Corolla-lobes valvate, rarely contorted in sestivation.' The beat way for a stadent is to frame auch table for bimaelf.

\section*{THE HIPPEASTRUM.}

These are now dormant, and at auch time ordinary cultivators are apt to be forgetful of them. Hippeastrums ahould gradaally pase into the reating period in September; and again attention is needed that they be not dried off too rapidly, or air and light admitted too freely. Even daring growth the Hippeatrum must have a light shading from bright anahine, and a moderately high temperature of \(65^{\circ}\) to \(70^{\circ}\) a a minimum, and a rather moist atmosphere. Jut an the temperature is gradually increaned when atarting the plants, to alao mat it be gradually decreased to reat them. The water may be withheld altogether as woon as the leaven take yellowish tinge.

At present the plante are quite dry at the roots, and they have been removed from the tan, where the roote had ramified all through the planging material. We have carefully examined every bulb to remove
the dried outer coating, with any innect pents that may be hidden amongat them; and an a further precaution, the crowns are dusted with tobaceopowder. Thiskills thrips and the mealy-bug, if any are preant. Air ahould be admitted freely by day, and the heating apparatus must be used to dry up damp, which may be idjarious to them. N, time thould be lost in getting the potting-soil ready. I like to have such soil mixed at leat six weeks before using it, so that the manure may in some degree be absorbed by the loam; and good compost may conaist of about two parts of good jellow loam to one part light fibrous peat, and one part of decayed atable-manure.

The potting of the plants ahould take place toward the end of January. The bed where they are to be plunged should have been previously prepared by mixing some freah tan with the old nuterial, and at the time of potting the bulbs it may be \(85^{\circ}\) to \(90^{\circ}\). Piange the pots to the rimm, as they are potted. \(R\) :potting must be done carefally, ind over-potting avoided. The largest bulb are about 6 inches in diameter, and these are potted in 24's or 8 -inch pots.
Good flowering balbe may be pat in pots \(4 \frac{1}{2}\) to 5 inche diameter. Toe pots mould be wathed and well drained. Ia preparing the balbs for potting, all the old material mast be removed, and the base of the bulbs examined. The roots grow in a circle round the base of the bulba, leaving the centre of them quite bare, and there is unaally a fi \(m\) of dried skin covering this. Remove the skin to see if there is any decay underneath, and if any be present, cat it away and dust the wound with quicklime, presing it in with the fingers. The bulbe ahould be placed on a cone of mould, with the roote hanging down the sides; preas the soil firmly amongat them, finithing off with the bulbs about half covered. SJmesand ought to be mixed with the compost, and a little ought aleo to be aprinkled on the sarface of the soil. \(J\) Douglas.
Nursery Notes.

WILL TAYLER'S, IIAMPTON, MIDDLESEX.
Is the varied outaide department of nursery work and experience, none is m re replete with interenting details and information than the ruittree department, where this is a pecialty. Vaited late in the autumn, aay till the end of the month of Oitober, much information maj reacily be gleaned that cannot fail to be of use to thone c)ntemplating finit-tree planting. Amatears eapecially leara moc \(a\) in thim way, that it is almost imposaible otherwise to obtain. In any fruit-tree nursery worthy the name thare are to be fuand obj ct-leasons by the sco e. The trees may be seen in all shapes and methods of training, and comparisons can be made of their behaviour on diff rent kinds of atock. Moreover, if the viait be early enougb, the cropping capabilitie of the various varietiea may be observed, a rather important piece of information for the beginner; while those who are past the elementary atage will fiad much to intereat and enlighten. Tae past season I had the opportunity of looking through the fruit-tree nursery of Mr. Will Taylor, which is nitasted in what is locally known as the "Broad Lanes," Hampton, and for the cultivation of fruit trees and \(R\) ses occupie a very favourable positiod. It is known an the O,borne Narsery, and was some yeara ago a brancis naraery of the late firm of Osborne \& Sons, Falham. Mr. Tayler has now beea eatablished here for the last twelve years or so, during which tims fruit trees and Roses have absorbed much of hit attention. Hie frequent contribatione of fruit at the leading exhibitions are well known, and among these the autumnal show at the Crystal Palacs is a notable instance. I; is a feature of the nuraery that many of the fruita attain to excoptional niz 3 , weight, and colour. As proof of this, some dishes of Blenham Orange Pippin Apple were eagerly purchased by a leading fruiterer for the extraordinary price of 18. a-piece, and this, too, in an abundant year. At
the tame exhibition, a crowning fruit of a dish of Pesugood Nonuch weighed exactly 22 oz . When gathered, while a similar fruit of Jubilee turned the icale at 17 (z. Admittiog that the jear has been favoorable for froit crops, one cannot help bat notice in this nursery exceptional instances of fine coloring, unch varieties as Bismarck, Fearn's Pıppin, Gascoigne's Scarlet, Alexandra, Annie Elizabeth, and Crimon Queening being eapecially worthy of note on this account. The last named Apple is deep crimson in colour, and, as here seen, with the frait coloured all over, is very handsome. Indeed, such varietiea are valanble in the garden from an ornamental atandpoint when they have anch exceptionally high tints. An instance, quite the reverse, was to be seen this season in that over-praised American Apple, Newtown Pippin, which cannot begrown an atiafactorily, as can the varieties named in the open quarters. It is said to require a wall to grow it to perfection-by no means a recommendstion for it, when one rees it side by side with the brilliant Bienheim Orange Pippins grown in Mr. Tayler's nursery. Reinette du Canada is highly apoken of, and the fruits fully endorse the high encominms passed upon it. It is perhaps the largest deasert Apple, and valuable also as a late kitchen fruit ; the latter are covered with ruset-brown akin, has tender gellow fleth, of fine flavour, and is is withal a heavy cropper. Ringer is aloo a heavy cropper, and relisble; it is regarded as a mid-season frit, and is good till Chriatmas; the flesh in aweet, requiring little or no sugar when cooked.
Space, however, will not permit of a lengthy enumeration of varieties, soffice to say that all the leading kinds are represented in good fraitful trees. Particularly noteworthy is the small size of the trees that have borne the brilliant-coloured and large fraite alluded to of Biamarck, Bienbeim Orange, Peargood's Nonauch, and others ; and this, with the ordinary caltural routine in such narseries. For example, trees of Biomarck not yet three jears old, snd only about 3 or 4 feet high, were literally loaded with large and bandsome fruits. And of many other
varieties this is equally true. To amateurs with only varieties this is equally true. To amateurs with only
a. mall area, these buah treer, fruitful in the year of planting, and occapying such little room, are great acquinitions, bying readily pruned, aprayed, and the fruit gathered or examined.
Even market growers are planting the Apple in buoh-for \(m\), ss the fruits from them nbtain the highest quality and fetch high prices. \(Q\) antities of Wellington, Damelow's Szedling, and Sichoolmaster (acid lieab, fine quality, and late), Coz's Ofange Pippin, as well as the carly well-known kitchen varieties, are bere in plenty, and represented by trees in the finent health, vigour, and fruitfulness. The soil throughout the nursery is light loam overlying gravel, is well drained and warm. Pears on the Quince are largely groxn in all the leading varieties, and with rqually satiofactory results. Rosea of all sectiona are cultivated, and the plants for size and general goodness are all that conld be desired. B 1 sh fruits of all kiad in variets, trained trees in abundance, Fige, G ape-vines, and the like, are all grown to mett the constantly-increasing demand, and are alike notewortby for their clean well-matured growth and general appearance. J.

\section*{Home Correspondenoe.}

The apple thee in shrubberies. - at p. 620, a correspondent "D. L. M." inquires, "Why Ahonld not the strongest and bardiest of our Apples be planted in the abrubbery, for nothing looks better in the spring, or coald be more usefal in the autaron." Your correspondent may be interented in learning that this has been carried out in Mrs. Fiszwygram's garden at Lartfield, Hampton Hill, the idea orizinating with Mr. Maurice Map, the pardener, whose argument for doing so war, that if the beanty of the Apl le blossom war realised in a shrabbery, we should not rent antil all shrubberies were freely planted with the trees. Bat becanue Appla treeu abound in our gardens, we are content that the ahrabbery ahould remain crammed
fall of Larrels, with hangry Poplars overhead, and With other abbject equally ornamental or useful. I believe, in this instance, that some little argument was neceasary at first. As soon as the reault was apparent, viz, the increaned beaty and utility combined, Mre. Fitz fygram gladly gave her parmission to plant more of them, and as other trees become too large in the hrubbery they are taken out, and Apple trees planted instead. In many gardens where space is limited, it is acarcely poscible to make the most of the kitchen garden if Apple trees are planted thickly; but by atilising the ahrubberies and the margin of the lawn for the frait trees, a mixed kind of garden is created that is by no means unpleasing, which proves advantageous to the owner and helpfal to the gardener. Of course, a shrubbery ahould not be all Apple treen, any more than as now so generally a confuned mana of various species of Laurel and dingy and rasty Conifers. What is asdly needed is, that a much larger percentage of beautifal decidnons flowering trees and shrabs shoald enter into the crmposition of the shrabbery than is the case at present. J. 「With which opinion we cordially agree. Ed.]
national chrysanthemum society.-What is rally wanted is some information aboat "the auitable hall in a central apot," available for the exhibitions of the above Society. I am able to ary that two years ago a special sub-committee was appointed to visit suitable places within a radius of a mile of the Weatminater Aquarium, and fonad nothing that would afford half the apace for ataging and locomotion as that afforded on the floor of the Aquariam building; while the rent asked for such places as the Q reen's Hall is something almost fabuloue. Complaints of the unsaitability of the Aquariam appear as regalarly every year as does the shortest day, but no alternative sites are saggested. I am nure, from what I know of the committee, they will readily consider any proposal of a practical and nitable nature, if placed before them. OLe fact is perhaps overlooked by "Mum," and otherf. A big Carysanthemum show in November is now associated with the Royal Ayuariam, jast as the Cattle Show is with the Agricaltural Hall, and is annually looked for as a London afisture. Should the National Caryannthemum Suciety leave the Aquarinm, it would not follow that the November show there would be discontinued; the managers of the bailding are keen bainean men, and know the palue of auch an exbibition, and would, no doubt, hold one, and they woald do it on a acale that would dwarf out of all proportion anything the National Cbrysan hemum S ciety would do elsowhere, apart from the subsidy from the Aquarium Company. This is an aspect of the question that I bave no doubt is duly conaidered by the committee, but it is probably one which has not strack "Mam," and thoes who aympathise with him. One thing is quite certain-that, jadging from the report made at the annual dinner, anociation with the \(R\) yal Aqzarium doev not prevent the raoid expansion on the part of the Society. Another Мum.
-- Your correspondent, "Mam," Gardenere' Chronicle, po 684 bringe forth the old obj etion oace mord gaent the holding of the atama exbibition in the Royal Aquarinm. Ho finds all the fault imagiasble, but he ends there, leaving to others the difficulty of finding an alternative place. Finding fault is one thing, saggesting improvements is another; why deva he not name a better place? He half admits the fact that the \(R\),yal Aquarium is central, as it is for visitors and exhibitors alite, and the latter are sarely entitled to some amount of consideration. "Mam", appeare not to know that the whole of St. Stephen's Hall will be devoted to exbibition purposes next year, and this addition will make an enormons difference to the show, providing, as it does, so much extra space. Who knows, too, what other achemes the management may have in coatemplation P Perhaps "Mam" will say where sach a site as he has in his "mind's eye" will be found. \(B\).

THE ROYAL MORTICULTURAL EOCIETY'S COM. MITTEES.-I Baw a note on this nrject in the Gardeners' Chronicle for November 30. It may sarprise some, bat it is a fact, that many gardeners in the provinces seldom or never read the transactions of thene committees, anless it be those of the Scientiff Committee, which have a general interest, though the reports are far too meagre as a rule. Conld not nome procena of devolution be attempted, and a wider interest aroused, by having a few aub-committees (with full powers), which would ait periodically at a
few cantres in the province in Eogland, Scotland, and Ireland, en rapport, of course, with the London Central? I merely throw ont the idea, and the plan need cost very little if each committee paid its own expenser. Ms aim is to suggest nome scheme by which the "Royal" could be brought into cloaer contact with herticulturiate all over the country. Up till now I am not exaggerating when I aay that we provinc al men have nos believed that all the "talent "were confined to London and neigbbourhood, or all the good thinga either. The Royal Horticultural society mould "sit on circait" like Her Majeaty' jidges. There woald be no ot j ction to the necretary of the S jciety, or nome competent member of the Council, presiding at these meetinge, but all the members would need to be local with wide limit. At present we pay little attention, or none at all, to the committees' proceeding in Jsondon, aid when we do, wo discount their transaction on a libaral scale. Fuith is weak. J \&. W.

CRAB8 IN THE GARDEN. - Soms of your corree pondente have recently been calling attention to the varieties of the crab as ornamental abrobe. To any one planting treet, say for an alcove or abaded walk. Pyrus Malus floribunda is a most demirable variety for the purpose. I have anclosed some fraits of th: same. R. M., Newbury. [Our correapondent kindy sent everal atoot of this variety loaded with the fraite, which are yellow in colour, and the size of thore of the Whitethorn. Ed.]
oerbera \(J a m E 80\) ni-A good epeciman of Gerbera Janesoni has done well hese in the open border for several years, though it has had no assistance at all from hot-water piper. I think the plant is certainly larger than that of Mr. Lpoch in the Botanic Garden at Cambridge, though the latter is the more flori'erous of the two. I have alway put a box with the top and bottom knocked out over the head of my plant, and this has been filled un with dry leave to the top. I generally bid good bye to my \(\mathrm{G}=\mathrm{sbera}\) in November, and I afe nothing more of it till the middle or ead of the follow.ng May-though the leaves are all scrapad away fron it at the begianing of April. By the aid of the above simpla precaution, this plant ia manageabie enoagh in the Ille or Wight; bat if my circamsance were like thone of Mro Lunch at Cambridge, I should follow his plan, which I know to be a very good one. He hav the advaniage of a much larger crop of flowera than I evar get, but I estesm my plant to ba a fioer one than his. Which has the advantage, a plant which is grown in proximity to the hot-water fipen of atove, or another which is favoured by the climate o? thy Itle of Wight? H. Ewbank.

PLANTS for game covert.-I thank those of your correrpondente who bive replied to my query on the sbove (see p. 684). I asaure Mr. Harrison Weir my quention was bonâ file, knowing that so few ehrabs were free from is jury by that enemy of tree of thrub growth-the rabbit. I wes ancious to add to their number, if ponsible. As beariag on thi abjuct, I may bere mention a remarl I have used to owners of eatate and others for many jears past, viz, "feeding rabbits on growing tree and ahrub bark is on!v comparable in extravagance to aning new f.5 Bink of Ejpland noter to diah op entrées as a dinner party." However, this is by the way: rabbite are, and will be, kept for aport on most, if nut all, properties where woods and plantation exiat, and it is the daty of those interesed to find out what brobs uselal for c.jvert are the least injured by them. I do not think Rona rognsa fairly comparable as to ite apines with the wild Doz Rome. I hope I hava to: much feeling for both man and bras? to think even o? makiog large plantations of the Dug Rose for covert. Rhododendron panticum is a well-known covert plant, mainly free from injury by rabbite. Thowe of us who are situated on the limeatone formations know, though. that it will no\% grow freely eaough for that parpose. In most casen, it marely exists. In reply "Mr. Pope, I mas mertion, thas with ut Engliah Yews, Ha diworth broad leaved, and the ordiaary Tree Box, ere the only evergrient free from ibjury. Among t deciduous nhrabe. Saingan in variety, flowering Car nt ditto, P. ruian L lacs, D.og-wood, Saowbery, and Eders are not injured. The latter in particalar is never toncbed by rabbit*, even in the hardes winter, and where they are very numerous. H. J. C., Grimston Gardens, Tadoaster.

RABBIT-PROOF PLANTB-Mr. Pupe ( \(\rho .685\) ) akk for the names of thene, and I intended mending a note on the aubj cy ome tima ago. As lat winter was so exceptionally eevere, with the ground covered by suow for several weeks, and the wood anfortanately fall of
rabbita, a remarkably good trial was afforded. The concluaion I arrived at is that no plant ordinarily grown in wood is proof against attack in a severe winter with one exception, viz, Rhododendron pon-ticum-a plant which thrives here in the natural soit, a atiff clay, and is grown in large mases, some of the plante ranning up from 12 to 16 feet, and it abounds in all nzea, from tiny aeedlinge upwards. The rabbits were o preased for food that they died by huadreds, although fed with hay, \&ic., but in no case did they nibble the Rhododendrons. Airegarde the liability of other plante to be attacked, I place them In the following order, tarting with those which received the least iojary, but eeveral of them are about equal in that respect. Yew, Holly, Portugal Laurel, Common Laarel, Berberis aquifolia, Privet Iry, of this lat they ste every leaf obtainable, and in one inatance climbed a broken tree 4 feet, and walked along it 26 feet, at a distance of 4 feet abova the ground ; they also climbed to the top of stacke of green faggote put ap on end, and cleared off the bark and young twigs, and large branches of Beech 1 foot in diameter were barked clean by them. So many died of poisoning by Yew and other herbage, that it was not afe to take the foxhound into the woods alter the froste was over, as they ate the dead rabbity and became ill in consequence. All this tend to show the immanity of Rhododondron ponticum from injary; and where it will grow I consider there is no plant its equal for covert planting-its beanty in pring when in flower is well known, and appreciated. Hgbrid Rhododendrons are not so afe from attack here, possibly because they grow more alowly, and rabbits have a remarkable tendency to attack anything recently planted, or standing in an isolated position, as choice thioge often do. W. H. Divers, Belvir Ca•tle Gardens, Grantham.

THE IMPORTATION OF HORBERADIBH.-I WAS very pleased to read your article on this aubject in the last week's issue. Mr. Mason's facts cannot be too widely known. Horseradith nowaday has no flayour or pangency. One seldom meete with any now at reaturants, hotels, or greengrocers, bat what one could eas a dishfnl, comparatively speaking.
without tasting the old Horseradish flavour of one's youth. Then all was English-grown; and the secret is one of cheapness of production. The foreign roote are cultivated in a mont inexpenaive way, and are sold at a lower price than the cont of prodaction is here. I wonder Mr. Mason did not explain the differenc 3 in the atyle of cultivation in Eagland and in Holland, where most of this tasteless atuff comes from. I also wonder that he and other Eaglich grower: do not cultivate the root in the cheap way the Datch do, seeing that the British pablic prefer cheap and tanteless roots. In Holland they plant in April, the snags, or long thin rootlets at the base of every old root, about 8 or 9 inches apart each way. There enlarge daring the aummer growth, and being dag up in November, form the article oold as imported roots (an old root enlarged). Eaglith cultivation in very different, and much more contly. The crowns of large roote are cat off about 4 inches in length, and planted in Febraary, I believe about 1 foot apart in the rown, 2 feet from row to row, and 1 foot deep. Each crown is worth a penny, which, together with the amnunt required for labour, entails a cont of aboat \(£ 60\) or \(£ 70\) per acre for planting only. The planted crown throws a shoot up to the surface of the ground, which enlarges to about the thicknena of the parent crown; and in November, when the growth is finished, trenches are dug between the rows, and the now growth of 1 foot cat away from
the old crown below, and the article sold by Eaglish growers, being a new fresh-grown root, full of flavour, and not a piece of old tough root enlarged. The imported roote come over packed tightly in enormoas barrels, and anyone may know them in the thops; they are dirty-looking, and have a little lesf grown and bleached in the barrels. English grown roote look much fresher and cleaner, and have a little tuft of green leaf just beginning to grow on the crown. Aay one who trie the Eaglish roote against the Datch will soon detect the difference in the flavour and atrength; and while he is tatiag the Eaglish, he will "weep" to think be ever booght or encouraged the foreign root. Alfred

CHAYBAMTHEMUM, M. CHENON DE LECHE. -The engraving in last week's Gardeners' Chronicle, p. 683, represents this charming variety in ite true character. Tarieties introduced during the lant few yearn, The
colour is so diatinct from any other, and so pleasing, that it is mure to find many admirers. I saw the bloom: staged at the R jyal Aquarium Show, and at Hall too it was a prominent feature in Mr. Wella atand. I regard this Japanese as one of M. Calvat's beat introductions, and one that will find favour wherever seen, E. Molyneux.
a4B-LIME.-I can assare yoar correspondent, \({ }^{\text {s }}\) R \(D_{\text {." }}\) that gas-lime, used in the tresh atate, in the quantitien I mentioned, a id in thy way directed in my Calendar in the antamn of the year, will be quite afe for him to recommend when lectaring. No ill-effect will be visible the following season; but inatead, if good caltivation be given as well, the oil will not only grow good vegetablem, bat such as will take priz3. This I have proved for a namber of years; and others who have seen the crops that I have grown will corroborate the atatement. I should certainly not hava recommended the use of fresh gaslime without having fully tented it for yeara. John Lambert.
begonia qlotre de sceaux.-I find thi useful free-flowering Bagonia of great service for decoration at the present season and later in the jear. The flowera of a soft pink colour contrat pleasantly with the rich bronze foliage. I uaually propagate the plant from "eyes" in a brisk heat lite the Viae in the spring, inserting these in light sandy coil, and keeping the latter rather on the dry side till the root have pashed, and when this occurs, hoots quickly appara above the soil; and the cattings, if they are then carefully potted, become soon ready for hardening off and placing in a cold frame. The plants with ordinary attention do very well in cold frames throughout the season and make good plants by the autuma, at which season they should then be taken into a house or pit having a temperature of \(50^{\circ}\) to \(55^{\circ}\). Daring the summer, manare-water should be frequantly
afforded to all the well-rooted plant. H. Markham.

\section*{LATE FLOWERINQ VARIETIES OF CHRYBANTHE-} MUM8.-Several of your correspondents have lately spoken of varieties of Carysanthemume suitable for flowering at Christmas and later, but none has mentioned Princens Victoria, a variety which I connider the beat of all for the purpose. This variety has a good habit, and, being a good grower, it makea atrong compact bushes from 3 to 4 feet high, if stopped once in the apring; and the blooms are good, either on specimen plants, or, if not diabudded, as apraya. Last Christmas my only two plants were grown aide by aide with L. Canning and other late-flowering varieties, none of which was equal to it in usefulness or beanty. This year I have about thirty atrong plante in 8 or 9 -inch flower-potes, and they are jant commencing to open their bads, and will be in perfection at about the 30 jh inst. I intend to diecard Lady Lawrence in farour of Princens Victoria. I aend a apray from the earliest plant for your opinion; also apray of another varisty named Florence Watson, an importation from Japan, which, I think, will make a good late white, R. Watson, Elkington Hall, Louth. [The blooms sent of Princess Victoria were of usefal decorative size, white, with lemoncoloured centre, outer florets becoming pink with age. Apparently very free in blooming, but compared with L. Canning the blooms are lens white. Should the habit of this one be better than L. Canning. the variety is doubtless of firat-rate usefulnem. Thome of Florence Wateon mentioned by our correspondent on aprays unthinned have broad, pare white Aloreth, elightly incurved, young floret dintinctly lemon-coloured. Some mistake appearm to have been made in putting up this bunch, however, as the large blooms from thianed shoote are very deep, the floreta are namerons, narrower, and fated, and little trace of lemon in the centre. They are preamably two varieties, and the broad-floretted one is decidedly pretty. ED ]
pear lucy Grieve. - I was pleased to see the Pear Lacy Grieve figured in your last week's isme, and to read the touching lines in verse by fond parent, now departed, in memory of his little daughter and her seedling Pear. Partly from the tnuching incidente connected with the origin of the Pear, I got a maiden plant of it a number of years ago, but it has never fruited with me. It is on the Qaince, on which etock it is a weak grower, and evidently thy bearer. However, I am not yet withont hope of neeing Lacy Grieve in truit in East Lothian.

TREE-PLANTIMG AT EXMOUTH.-The inference to be drawn from your note ( \(\mathrm{p}, 650\) ) respecting this
is, that the syetem has only but recently bzen introduced. Thank to the generonity of the Lord of the Manor, many of our principal roads were planted several years ago, others were planted last neason, and at the present time we have nica avennes of trees, principally Limes. I regret, however, to ay that this autama the public have taken the matter up, and very few Limen, or what, perhaps, would be more nitable, Planes, are being planted; and oar bearatiful eaplanade-perhaps one of the finest in the kingdom-has been disifgured by being planted with a mixed collection of Horas-Cheatnuts, Sycamores, Balsam, Lombardy, Black Italisn, Silver, and other kinds of Poplara. The Chestnuts will certainly be a failare, for the situation is mach exposed to the ea, and in galea they will get every leaf blackened. I may add, that aince the tree were planted many have been beheaded to bring them into shape. It is a matter of regret that the Council were ao ill-advised a to consent to the planting of auch varieties, for it only brings street tree-planting into disrepate. Ermosthian. [The kind named are not, parhapa, the best that could be chosen. Still, the onily really unsuitable one is the Horse. Caestnat. Ed.]

\section*{SOCIETIES.}

\section*{ROTAL HORTICULTURAL}

December 10. - The maeting3 and exhibitioas for the present year were brought to a close on Tuesday last by that
held in the Dill Hall, James Street, Westminster. As is usual on occasions immediately preceding the Christmas season, there was a lirge atteadance at the several committees and particularly in the case of the Fruit Cummittee, whosa passed in ooaneotion with Mr. Barron's ret'rement from this position is referrel to on another pige. Notwithstandiag the unusual attendance upon the committees, the extent of the exhibits was not larg3, and two of the long tables furnished saffient accommodation for them all, excepting a group of Chrysanthemum plants. Orchids, cut Chrysanthemum \({ }^{\text {, fruit }}\) and vegatables, and a few miscellaneous plants of interest, comprised the exhibition.

\section*{Floral Committee.}

Present: W. Marshall, Esq., in the chair; with Me:grg J. Fraser, J. Laiag, H. B. May, H. Herbst, R. Daan, R. Owan, G. Stevens, J. Jenningz, G. Gordon, W. Bain, H. Cannell, J. D. Pawle, H. Se fe-Leonard, G. Nicholson, C. Jeffries, C. E. Shea, J. W. Barr, J. Walker, J. T. Bennett-Poë, H. Briscoe-Ironside, C. Blick, G. Paul, H. H. D'Ombrain, and Harry Turner.
From the gardens of Sir Trefor Lawbence, Bart, Bufford, Dorking (gr., Mr. Bain), came a number of cat spsthes of hybrid Anthuriums, all of them pretty; also a panful of well grown plants of Primula floribunda, a very pretty little species from China, with yellow flowers, blooms during most of the winter (Silver Banksian Medal).
J. P. Bemetr-Pot, Esq., Holmewajd, Cheshuat, aguia exhibited the plant of Begonia \(\times\) incomparabilis, raised by Mr. Froeb sl of Zurich, and figured in our last issue.
sbout eighteen plants of seedling varieties of Primu'a sinensis, illustrative of an excellent strain, but hardly in full flower, were shown by Mesgrs. Hy. Cannell \& Sons, Swanley, who had also some good sprays of varieties of Canna, including Queen Charlotte and Alphonse Bouvier, the latter a very effec ive crimson-scarlet colour.
Mr. C. Herrur, The Gardens, Dropmore, exhibited a few plants in flower of Oxalis Ortgiesii, a spacies bearing amall yellow flowers and darr bronzy wedge-ghap yd leaflots (Vote of Thanks).
Chrysanthemuns were again shown by several exhibitors, but the only award gained on this occasion was one by a decontive variety, named Stress, exhibited by H. Briscoer Ironside, Ksq. Cedar Lodge, Bayes Hill, Sussex. A large number of the blooms were arranged in «stand in an effective manner, and the decorative value of the very soft yellow-coloured blooms was well illustrated.
Mc. Robert Ower, nureergmin, Maidenhead, had a fairly large collection of new varieties, includiag Mrs. C. E. Shes, J. W. Richardson, Midame Eugene Mercier, and a number of seedlings (Silver Banksian Medal).
A group of Chrysanthemums, shown by G. H. F. TKREs, Bsq , Chislehurst (gr., Me. J. Lyne), was composisd of plants of Jeanette Sheehan, a sport from the whiteflowered Priaceas Blanche, with vellow flowera, having a broozy centre. The variety was given an Award of Merit by the society in January last, and is apparently very free-flowered, baside being pretty and attraetive (silver Banksiau Medal).
A new patent Orchi 3 -basket was exhibited by Masars. Seasele Eox, 135, Richard'd Road, Heelsy, Sheffield, the chief ianovation in which is a saucer-shapad top, by which it is claimed the water given is throwa to the contre of the compost.

\section*{Orchid Committee.}

Pris:nt: Harry J. Veitch. Etq., in the chair ; and Mesers. Jas. \(0^{\prime}\) Brien (Secretary), Dr. Maxwell T. Masters, J. Jaques, E. Hill, J. Douglas, W. Cobb, S. Courtauld, H. M. Pollett,
I. W. Bond, De B. Crawshay, A. H. Smee, H. Ballantine, H. J. Chapman, W. H. White, E. Ashworth, T. B. Haywood, and R. Brooman-White.
The last meeting of the year brought a good attendance of the members of the Committee, and the exhibits, for the sacon, were good and interesting.
Sit Trevor Lawrence, Bart. (gro, Mr. W. H. White) as ussal, contributed some remarkable plants, the most admired of which was a pretty specimen of the rare Dendrobum Treacherianum, whose dwarf Bulbophyllum-like growthe bore Treacherianum, whose dwart Bulbophyllum-1ike growth bore three short spikes bearing together twenty-three large rose
coloured flowers with dark crimson base to the lip. The plant was awarded a First-class Certificate, and a Cultural Commendation was alloteri to the grower.
A Botanical Certificate and Cultural Commendation were aliog given to a noble especimen of Angreeum pertusum with Butanical Certificate for the pretty Masdevallia pachyura, with red-brown and clear yellow flowers, and which was now shown for the first time, the plant which has hitherto borne
the name in gardens being M. caloptera, a totally different and the name in gardens being M. caloptera, a totally different and
smaller species. Sir TREVOR LAWEETCK also showed the rare Marmodes La wrenceanum (Lindenia, t. 275), (Botanical Certifcate); a giant rariety of Masd ovallia macrura (Award of Merit), the extraordinary large Bulbophyllum grandiflorum,
Dendrobium Coslogyne, and the white and rose forms of İli tubscens.
Baron Sir H. SoHroder, The Dell, Egham (gr. Mr. H. Ballantine), sent a most beautiful collection of cut flowers of
Cgpripediux \({ }^{\text {s }}\), representing some sixty finespecies and varieties, Cgpripediuxs, representing some sixty finespecies and varieties,
and for which a Silver Banksian Medal was awarded. Of the mostystriking, we noted the two yellow Cypripedium insigne Sandere and \(\mathrm{C}_{\text {, }} \mathrm{i}\). Sanderiana, the former yet far and away the best of yellow insignes; C. \(\times\) Southgatei, C. \(\times\) T. B. Haywood, C. \(x\) Arthurianum, C, \(\times\) Harrisianum superbum, C. \(X\) unnamed hybrids a handsome flower obtained between \(C\). Druryii and C. 8uperbiens. In the group also were flowers of the pretty Cologyne Arthuriana, a near ally of C. maculata,
but demonstrated by the late Professor Reichenbach to be but demonstrated by the late Professor Reichenbach to be botanically different. As a garden plant it is cer
J. T. Bennett-Poe, Holmewood, Cheshunt, staged a very pretty group, of which the centre was formed by a very graceful arrungement of fine spikes of various Calanthes; with them Was a remarkable noble variety of Lycaste Skinneri, named coerulea (Cultural oommendation), and a singular variety of Lelia autumnalis, with large pure white side lobes to the lip. a silver Bdnksian Medal was a warded for the group.
Messrs. Jas. Veircia \& Sor, Royal Exotic Nursery, King's
Boad, Chelsea, staged an effootive group of rare plants, among Boad, Chelses, staged an effective group of rare plants, among
which one of their latest and most beautiful novelties, Laelio-Catuleyax Lady Rothschild (C. Warscewiczii ó, Lælia Karrini o) made its début, and secured an Award of Merit. The flower in size approaches C. labiata, but the form of the lip follows closely on that of L. Perrini, though in the hybrid it is of more ample form, and brighter in colour. The sepals and petals were of a clear rosy-lilac, the dise of the lip prim-rose-yellow, with some beautiful purple markings at the base, add a bright purple front lobe. Another fine hybrid shown by Kessrs. Vercie was the pure white Calanthe \(\times\) Harrisi
(Turneri \(\times\) Veitchii), which received an Award of Merit (Turneri \(\times\) Veitchii), which received an Award of Merit, and noteworthy things were Loelio-Cattleya \(\times\) Pallas (C.
Dowiana \(\times\) L. crispa), the rare Oymbidium Traceyanum, and sereral others (Silver Flora Medal).
Mesgrs. F. SANDER \& Co., St. Albans, staged a very effective group of their various new wiater-flowering Oalanthes, together with Phaio-Calanthe \(x\) Arnoldiana, Leelia anceps elba, Helcia sanguinolenta, Restrepia antennifera, Odontoglossum aspsrsum, O. Schroderianum, O. Nevadense, 0. Wulckeanum, and numerous hybrid Cypripediums (Silver Badkaian Medal).
Mewr. B. S. Wriliams \& Sov, Viotoria and Paradise Nurseries, Upper Hollowsy, N., showed a good collection of Oypripediums, among which we noted the noble C. \(\times\) Pitcherinum, Williams var, and others.
Thos. Statter, Esq., Stand Hall, Whitefield, Manchester (kr., Mr. R.Johnson), sent the handsome Cypripedium \(X\) Lacienianum superbum, C. \(\times\) Leeanum giganteum grandifloram (perhaps the largeat of the C. \(\times\) Leeanum), \(0 . \times\) plumosum, C. \(\times\) Niobe splendens, \(\mathrm{C} . \times\) Rufus (a richly-tinted Lawrenceanum crose), C. \(\times\) Ariadne, Leelia \(\times\) elegans nobilis, a very fine and richly-coloured variety; Leelio-Cattleya Trenederiana superbs.
H. TATE, E:q., Alle
Mr. TATk, E:q., Allerton Beeches, Allerton, Liverpool (gra, Mr, Osborne), cent Cypripedium ingigne, Tate's variety. The form appenred in the midat of a mass imported by Mesors. T. Sander \& Co. in 1892, whicn has been grownon all together. Tate"s variety, on which there were two flowers, is remarkable lor having the upper and lower sepals alike, and the usual sepal on both apper and pure lip of the ordinary variety's dorsal T. W. \&wruper and lower.
C. W. SwIMBume, Esq., Corndean Hall, Winchoombe, mong which were the pretty \(0 . \times\) Swinburnei, with nine blooms; \(0 . \times 8\) winburnei magnificum, whose massive flower typers diffecult to reconcilo as being from the same cross as the fase, vrietiee of \(O . \times\) Inown to be 00 ; the protty \(0 . \times\) Indre,

With ten flowers; the very singuiar and distinct \(\mathbf{O} . \times\) Lady Hutt (insigne \(\times\) Fitchianum), a noble flower, in some respects like a maseive C. \(\times\) Ashburtonies, but having a largs yellowcoloured staminode, and incurved lobes of the lip of the same clear colour.
Mesers. HUGR Low \& Co., Clapton, arranged a group of Orch ds, in which were two fine warieties of Cymbidium giganteum, Cycnoches chlorochilon, and others
W. C. Walker. Esq., Percy Lodge, Winchmore Hill (gr.,
Mr. Geo. Cragg), showed Lelia rubescens, Oncidium prgetexMr. Geo. Cragg), showed Lelia rubescens, Oncidium pretex-
tum, and a Cypripedium Charlesworthii, with curiouslywisted sepals.
G. Shoreland Ball, Eeq., Earlscliffe, Bowden, Cheahire, sent the rare and beautiful Cattleya labiata alba in better form than it has before appeared; Cypripedium insigne Sandere, and C. insigue Ballianum, a charming clear yellow form, with broad, pure white upper-half to the dorsal sepal, on which were froad, pure white upper-half to the dorsal sepal, on whiches, suggesting shadows of the blotching reen in C. insigne Chantinii.
Messrs. W. L. Lewis
Messrs. W. L. Lewis \& Co., Southgate, showed Cypripedium flower, regembling the \(C, \times\) Alfred Hollington (Award of Merit).
D. B. Crawshar, Esq., Rosefield, Sevenoake (gr., Mr. S. Cooke), sent a fine form of Oncidium tigrinum (Award of Merit): and F. W. Moore, Esq.. Royal Botanic Gardens, Glasnevin, Du blin, showed Oncidium pictum.

\section*{Fruit Committee.}

Present: Philip Crowley, Esq., in the chair; and Messrs. T. J. Saltmarbh, W. Wilks, P. C. M. Veitch, G. W. Cummins, Jas. Cheal, A. H. Pearson, J. Wright, Alex. Dean, C. Herrin, J. Willard, Charles Ross, J. W. Bates, Wm. Pope, G. H. Sage, Geo. Wythes, Jas. Hudson, F. Q. Lane, A. Balderson, C. Reynolds, Jas. Smith, G. Norman, Dr. Robt. Hogg, and Jno. A. Laing.

Some fruits of the tree Tomato (Oyphomandra betacea) were sent by the South Devon Erait Farm, Torquay (T. Psnder, Manager). Seed was obtained from Ceylon, and sown in February, 1894, and the plant grew a great height, but did not fruit. After shedding its leaves, the plant was cut down to 1 feet, and this season it haser rown to 12 feet high, with branches 60 to 12 feet long. The flowerd are produced in bunches like Solanums, and the plant has carried fruit at every joint.
The fruits shown were about the size of a emall hen's egg, but were not quito ripe. Tce plant has always been ia a coolhouse, and it is thought that the fruit will never ripen
suffiently early to be profitable without fire-heat. Many Particulars concerning this fruit were given in the Gardener

The only collection of Apples and Pears was one from Ford Foley, Ruxley Lodge, Eeher (gr., Mr. J. W. Miller). There were upwards of forty dishes, and included were good specimons of Beauty of Kent, Sandringham, Blenheim Orange, Mannington's Pearmain, Court of Wick, Lord Derby, and many others (Vote of thanks).
Soedling Apples again occupied the attention of the committee, but no awards were given, though the committee are desirous of seeing some of the kinds at a later date.

Mr. CHas. Ross, gr. at Welford Park, had Opal, a amall yellow fruit, in colour like Golden Noble. Mesars. Jarmant \& Co., Chard, Somerset, had fruits of Crimson King Apple, a fair sized fruit, highly coloured, exhibited together with a young tree of the same variety
Mr. W. Empson, Ampthill, Beds, exhibited Ampthill Seedling and Easter Russet Rippin. Mesars. Laxton Bros., Bedford, had Lazton's Bedford Scarlet; and the Right Hon. Bedford, had Lazton's Bedford Scarlet; and the Right Hon.
Lord ST. Oswald, Noatell Priory, Wakefield (gr., Mr. Jno. Lord ST. OSWALD, Noatell Priory, Wakefield (gr., Mr. Jno.
Easter), showedigood dishes of Queen Apple, Alezander, and Easter), showedigood dishes of
Prince Albert (Vote of thanks).
Messrs. Dobbit \& Co., Rothessy, N.B., exhibitod some very well-grown purple and green Kales, to be known as the Victoria Kale. They were very remarkable for the cloce curling of the leaves (Award of Merit).

Meoars. H. Canneli \& Sons, Swanley, brought a few Savoys; several varieties of Beet, of good shape and colour, and not over large, notably, Best-of-All and New Purple; some Cannell's Mammoth Leele, and a collection of Onions in variety, the produce chiefly of field culture, bat exhibiting nevertheless, very large size and perfect ripeness. Very fine new forms were Lullington Park Eero, Cannell's Globe, and Southport Red.
A collection of Onions, in about thirty dishes, shown by the Earl of Carnarvon, Highelere Castle, Newbury (gr., Mr, Wm. Po pe), was well worthy of remurly by reason of the aizo and solidity of the specimens. Such varieties as Sutton's A1, Ailss Craig, The Lord Keeper, Sutton's Crimson Globe, Cranston's Fxcelsior, Veitch's Main Crop, Toogood's Southampton Champion, and Rousham Park Hero, were of excellent exhi bition size and quality, but emaller specimens of the same varieties were of equal quality at least, and as convenient. There were two seedling varieties of uncommon shape, but most nearly like Cranston's Excelsior, having a largo, almost crimson flat base, tajering to an unusual degree.

\section*{ALDERLEY EDGE AND WILMSLOW HORTICOLTURAL.}

November 29, 30,-1 successful show was held in the Drill Eall, Wilmalow, on Friday and Saturday. The coupptition in most of the clames was gool, and constlering the leteness of the date, fine blooms were exhibited.

Col. Dixon, Atle Eall, the Freident, opened the show, and
large aumber of visitors wiere preent on both divy.

The committoe are to be congratulated on the reenlt of their first effort, and it is hoped that the ahow will become a permanent fisture. The frait shown wes very good, and indeed, ezhibits generally were praiseworthy.
One feature of the show was a raried collection of Orchids exhibited by E. A. Hworte, Esq., Harefiold Hall, Wilmalow (gr., Mr. E. Holbrook), which was much admired. A amallor and select collection was shown by Dr. HoDGuwnow. The Grange. Wilmslow (gr., Mr. J. Worre).
Messrs. Clibran i Sors, of Altrincham, sent plants and cut flowers, also a fine collection of fruit; Mesars. Jormsosa a WheELER, of Cbesterfield. cut blooms of new varietied of Chrys anthemums: Mesars. Caldwels \& Sons, Knutaford, eent Conifers, \&c., to decorate the room, and also showed allec tion of Cyclamens, \&c., these various trade ezhibito eddiag much to the attrac tive ness of the show.
Ia the looal clases, honours were gaised by Mm. BrapLEY (gr., Mr. Geo. Heap), followed by R. B. Limgand Momi, Erq., J. White head. Req., H. Herrar, Eecio, and O. Har Reson, Eeq. (gro, Mr. W. M. Williams).

\section*{HIGHGATS AND DISTRIOT CHRTE. ANTHEMUM.}

DECEMBER 4. - The eleventh annual dinner of this Society took place on the above date at the Winchester Hall Hotel, Archway Road, Highgnte, and Charlee Catling, Eeq.o the Preaident, occupied the chair. There were more than 100 members and friends present.

The chairman, in proposing the toast of the evening-"The Highgate and District Chryanthemum Eociety "一riforred to the success of the recent show, which he enid wns the finet yet held.
Mr. Percival Hart, last jear's President, proposed "The
President and Chairman," and congratulated Mr. Catling on President and Chairman," and
the succese of his year of offlee.
The chairman briefly responded, and alladed to the strenuoan manner in which the committee had worled throughout the year. He afterwards presented the Medals awarded at the recent exhibition, which were as follows:-Bilver Medal of the Natipnal Chrysanthemuma Sooiety, to Mr.J. Brookp, gr. to W. Reynolds, Esq., J.P., Highgate, an addition to the the lat prize for a group of Chrysanthemums; Ryecroft Medal (presented by Mr. H. J. Jones, Lewisham), to Mr. A. Page, gr. to A. Taycor, Eeq, Southgate, for twelve Japanee e blooms; Bronze Medal of the National Chryeanthemum Society, to Mr. T. L. Turk, gr. to T. Bonex, Req., Highgate, for twelve bunches of cut blooms.

\section*{NATIONAL CHRYSANTHEMUM.}

DECEMBER 11.-As is usam at thip, the last meetion of the committee for the yesr, only a few novelties were staged, but the interest in the meeting was conaiderably enhanced by a collection of several boarde of fine blooms of novelties of a very interesting character, to which amall Silver Medsl was a warded.
First-class Certificates of Merit were given to Japanese Mrs. B. W. E. Murray, a full, symatrical, pure white incurved flower, the petals narrow, but plenty of them, from Mr. R. W. E. MURray, Blackford House, Rdiaburgh; to Japaneee Janetto Sheahan, a pale yellow aport from Princean Blanche, two finely-bloomed, dwarf, bushy plants, being oxhibited; it was Certificated as a late-flowering decorative and marlite variety.
Messrs, Jonmson \& WHEKLRR, nurserymen, Chenterfield. ent incurved \(\mathbf{H}\), W. Roeman, of a bright pure golden colour, which the committee wished to see again. From Measre. H. CANNELL \& Sor, nurserymen, Swanley, came Goldfield, a deep golden incurved Japanese ab ahown, which the committee asked to see again. It was ahown at the mesting of the Royal Horticultural society on the previous day as Ashanti, but the exhibitors apparently thought it expedient to chenge the name! A vote of thanks wae peesed to Mr. Thomas Bevan for his services as chairman of the Floral Committee during the past year, which was suitably acknowledged.

\section*{EDINBURGE ROYAL BOTANICAL.}

\section*{Plants in Flower ix the Glrdem.}

Asystasia scandens is a climbing plant which is perhaps better known under the synonym of Henfrey scandene, and a specimen planted out is now flowering in one of the stoves It in not a plant of vigorous growth, and raches a height of aboat 6 feet or thereabouts. The strmis, dark shining erean, are bwollen at the podes, and they bemr oppositedark green leaves, upon which the venation is very prominent The inflorescences are terminal, and are borne upon the short branches, in racemes carrying a good number of whito flowers 2 inches across the lobes; and the anther are black. As grown, it is very floriferous, and at this seacon is a very acceptable addition to the warm-house. It was introduced from Sierra Leope
Mag., t. 4449.
Jasminum pubescens.- Where cut flowers are in demand during autumn and winter months, thia favourite should not be forgotion, becaute of its fragrant white flowers. It is a native of Chins and India, easiy grown as a pot plant or Then planted out in a border. Afforded a good position in an atermediate, or cool stove temperature, more growth by plants in bordere is made, and consequently there are more Howering shoots. In gardens it is uften seen under the zome of J. hirsutum.

Cardioperalum gumifer um. -4 plant af this New Boect
the latter) has been in bloom for the past three or four months. The foliage is opposite, the ternate leaves having their leaflets with serrated margios, and it is evergreen. The terminal panicles consist of loosely-arranged flowers, in which the sepals are very prominent, and the petals small and divided into three pointed segments. The yellowish-white sepals turn, at the preeent time, to a pinkish colour, a change that brings at the preeent time, to a pinkish colour, a change that brings
them into more prominence. A good bugh of this plant would proveattractive. It is grown in a rather rich compost in a cool greenhouse among other Australian plants.
Reinwardtias.-Every year at this seanon we are reminded of the usefulness of these old plants in brightening and beautifying the stove ar warm greanhouse. The two species, R. trigynum and R. tetragynum, are both in full flower. They are somewhat similar in their flowers, but distinct in habit and foliage. The first is compact in habit, with entire ovate leaves, growing in pots to a height of 1 to 2 feet, but when planted out as here, it grows to between 2 and 3 feet, and oven higher, carrying hundreds of flowers, and forming a compact bush. The variety R. tetragyna is of a straggling habit, with larger elliptic serrated leavey, and rather larger flowers of a lighter yellow colour. Both vanoties are easily propagated from outtinge in the spring, and they may be placed in cold frame during the summer, with abundant water at the roote, and copious syringing to keep down red-spider, to which the plants are very subject. They may be kept antil their flowers appear in a cool greenhouse, and then placed in gentle heat to cause the flowers to open freely, which they will continue to do for a considerable length of time.
Eucharis Sanderiana, and other Species.-This specie named is not so well known as its merits deserve, for it possesses bold foliage on short petioles, shorter leave,, which have a mo'e conspicuóus venation than in the well-known E. grandiflora. The flowers are of great substance, the perianth not reflezed, and the corona almost absent. It was introduced by Messrs. Sander in 1888, from New Grenada. E. candida is also flowering here, its long peduncles calrying blooms in which the corona is very apparent, while the leaves are smooth, on long petioles. E. Mastersii, introduced in 1885, shows sigas of Aoweriog. All the above varieties of Eucharis ave worthy of a place in a stove. R. L. Harrow, Edinburgh,

\section*{The Weather.}
[The term "aceumulated temperature" indicates the aggregate amount, as well as the duration, of degrees of
tenperature above or below \(42^{\circ}\) Fahr, for the period degren-s "Day-degree" signifying 1 名 continued for an inversely proportional number of hours.]
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{temperature.} & \multicolumn{3}{|l|}{Raterall.} & \multicolumn{2}{|l|}{\[
\left\lvert\, \begin{gathered}
\text { BRIGHT } \\
\text { SUN. }
\end{gathered}\right.
\]} \\
\hline & \multicolumn{4}{|c|}{agcumutated.} & \multirow[t]{2}{*}{} & \multirow[t]{2}{*}{} & \multirow[t]{2}{*}{} & \multirow[t]{2}{*}{} & \\
\hline  & 8
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8 &  &  &  & & & & &  \\
\hline & \[
\begin{gathered}
\text { Day- } \\
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& \text { Day- } \\
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Inch. & & & & \\
\hline & & & & & & 2 & & 4 & 28 \\
\hline \(1+\) & 4 & 32 & + 2 & + 453 & \(5+\) & 183 & 29-5 & 20 & 36 \\
\hline 2 2 + & 12 & 22 & \(+249\) & + 278 & 4- & 178 & 28.6 & 28 & 34 \\
\hline 38 & 27 & 16 & + 215 & + 383 & 4 - & 15 & 23.1 & 28 & 40 \\
\hline \(4+\) & 28 & 14 & + 220 & + 346 & 2 & 162 & \(23 \cdot 4\) & 24 & 37 \\
\hline \(53+\) & 31 & 9 & + 195 & + 312 & 1- & 147 & 23. & 27 & 40 \\
\hline \(6{ }^{2}+\) & 20 & 13 & \(+146\) & + 35 & \(7+\) & 186 & \(35 \cdot 0\) & 12 & 33 \\
\hline \(71+\) & 25 & 4 & + 293 & +293 & \(3+\) & 121 & 30 & 9 & 35 \\
\hline 8 \% + & 31 & 3 & \(+131\) & +351 & 2 & 181 & 33.0 & 15 & 42 \\
\hline 9) \(1+\) & 12 & 13 & \(+34\) & +280 & \(5+\) & 203 & 35 & 18 & 32 \\
\hline \(19.2+\) & 23 & & - 11 & + 902 & 3 & 176 & 34 & 30 & 35 \\
\hline * \(3+\) & 52 & 0 & \(+303\) & + 146 & 4- & 181 & 28.0 & 11 & 50 \\
\hline
\end{tabular}

The diatricta indicated by number in the first columa are the following:

0, Scatland, N. Principal Wheat-producing Districts1, Scotland, E.: 9, England, N.F.; 3. Kngland, E.; 4. Midland Counties; 5, England, inctuding London, S: riseipal Grazing, \&c. Districts-6, Scotland, W.
T. England, N. W. 8, Eagland, S.W. 9. Ireland, N.
10 Ireland, S. Channel Island.

\section*{THEPASTWEEK}

\({ }^{4}\) The temperature was high during the greater part of the week, but fell quickly towards its clone. The average values for the week just equalled the normal in 'Scotland, \(N_{0 \prime}\) ' but exceeded it in all other districts, the exceas ranging from 1 in Scotland, Es, and 'Ireland, N." to \(3^{\circ}\) or \(4^{\circ}\) over the greater part of England. The highest of the maxima were recorded on the 4 th , in the north, and on the 5th at the more southern stations, and ranged from \(58^{\circ}\) in 'England, E.,' and 'Ireland, \(\mathrm{S}_{1}\) ' and \(57^{\circ}\) in the 'Midland Counties,' to \(53^{\circ}\) in 'Scotland, N. and E.,' and in 'Ireland, N:' The lowest of the minims occurred at the end of the week, when they ranged from \(25^{\circ}\) in 'Scotiand, E., to \(32^{\circ}\) in 'England, E.,' and to \(40^{\circ}\) in the - Channel Islande.'
"The rainfall was conaiderably in excess of the mean over Scotland and the North of Ireland, and to a smaller axtent in ' England, N.W.,' but in all other districts there was a deficit.
'The bright sunshine exceeded the normal amount in most parts of 'England,' as well as in 'Scotland, E. and Ireland, S., and just equalled it in 'England, N.W:' Elsewhere there was a deficiency. The percentage of the poseible duration ranged a deficiency. The percentage of the possible duration ranged
from 30 in 'Ireland, \(S\).' and 28 in 'England, \(S\). E. and E.' to 9 in 'Enom 30 in "Ireland, S.' and 28 in 'England, S.E. and E.' to 9 ind percentage recorded was as high as 39, and that at Aberdeen 37."

Markets.
COVEAT GARDEN, December 12.
[We cannot accept any reaponsibility for tho subjoined Thursday, by the hindness of several of the principal Thursday, by the kindness of severa of the principal for the quotations. It must be remembered that these quotations do not represent the prices on any particular day, but only the general averages for the week preceding the date of our report. The prices depend upon the qualicy of the samples, the supply in the market, and the demand; and they may fluctuate, not only from day to day, but often several times in one day. ED.]
Plants in Pots.-average Wholesale Prices.


\section*{fruit.-Average Wholrsale Priors.}
\begin{tabular}{|c|c|}
\hline 3.d. s.d. & \\
\hline Blenheim, p. \({ }^{\text {p }}\) & Grapes, Gros Colmar, \\
\hline bushel ... 3 0-5 0 & 18t quality, lb. \\
\hline oking & tros Colmar, 2 nd \\
\hline per bushel 16-30 & quality, \(\mathrm{p}: \mathrm{r}\) 1b. \\
\hline rom Nova & - Alicante, lat \\
\hline Scotia, per & quality, p. Ib. \\
\hline barrel ...11 0-140 & - Alicante, 2nd \\
\hline Wellington, 1st & quality, p. 1b. \\
\hline quality, bush. 46-50 & Muscat, list qu \\
\hline Wellington,2nd & lity, p. 1 l . \\
\hline quality, bush. \(30-10\) & Pine-apples, St. Mi- \\
\hline , per 100 lb . ... \(300-350\) & chael, each ... 30 \\
\hline & \\
\hline
\end{tabular}

\section*{Arumes, p. 12 blooms
 Boavarias, perbun.
Carationan 120 mem Carnations, 12 blms. per 12 blooms
- per 12 bunches
Eucharis, per dozen Gardenias, per doz. Yyacinths (Romas)
12 aprayn...
pageria, per doz. blooms Lilac. French, p bun. - lancifolium, per dozen blooms
Lily of the Valley, Lily of the Valley,
per doz. sprays... Maidenhair Fern. Marg 12 bunches... Marguerites, 12 bn . Mignonette 12 bun. French White, \\ ```
                ccccc
``` \\ OrCHID-bloom in variety}

\section*{Vegrtables. -aterage wholrsale Priceg.}


Poratos.
Trade slow supplies heaivy. Snowdrops, 70s. to sos. Hebrons, \%5e. to 85s.; Bruceos, 45s, to tots, Black lands, 50 s . to

\section*{SEEDS.}

Lormon: December 11.-Messrs. John Shaw \& Sone, Seed Merchants, of Great Maze Pond, Borough, London, S.E. state that as is usual during the Cattle Show week, the seed market is now well attended; meantime, however, no increase of business is shown, and values all round are without material alteration. Offers of Oanadian Alsyke have for the present fallen off Mustard and Rapeseed keep ateads. Blue Pees and Haricot Beans firm As regards Canary seed holders, in spite of the slow inquiry for arrived parcels, expres holders, in spite of the slow inquiry for arrived parcels, expres The new Hemp seed continues cheap and good. The Board of The new Hemp seed continues cheap and good. The Board of Trade returns give the imports of Clover and Grass seeds into the United Kingdom for the eleven months of this year as \(858,534 \mathrm{cwt}\)., value \(£ 768,369\); as against 295,
2723,856 , for the corresponding period of 1894.

\section*{FRUITS AND VEGETABLES.}

Borovari: Dec. 10.-Quotations:-Savoys, 3s. 6d. to 58. pertally; Cabbiges, 2s. 6d. to 3s. do. - Onions, 2s. 9 d . to 3 s .6 d . per bag; Carrots \(2 s\). to \(2 s .6 d\). ; Turnips, 2s. to \(3 s .6 d\). per dozen bunches; Apples, 3s. to 6s. per bushel.
Spitalfields: Dec. 10.-Savoys, 28, to 3s. 6d. per tally Cauliflowers, 5s, to 7s. do. (best); do., seconds, 2s, 6d. to 38. do. Turnips, 1s. \(6 d\). to 1s. \(9 d\). per dozen bunches; Greens, bunch 1s. to 18. \(6 d\). per dozen; Collards, 18. 3 d . to 28 . per tally Parsley, 1s. to 1s. 6d. per dozen bunches; Beetroot, 1s. to Parsley, 1s. to 1s. 6d. per dozen bunches; Beetroot, \(1 s\). to
\(1 s .3 d\). per bushel ; Sprouts, 2s. to 2s. 6d. per balf-bushel ; \(1 s .3 d\). per bushel; Sprouts, 2s. to \(2 s .6 d\). per balf-bushel;
Celery, \(8 s\). to 12 s . per dozen bunches; Leeks, \(1 s\). per dozen; Celery, \(8 s\). to 12 s . per dozen bunches; Leeks, \(1 s\). per dozen
Horseradish, \(1 s .2 \%\) to \(1 s\). \(3 \%\) per bundle; Apples, dessert Blenheim, 4s. to 4s. \(6 d\). per bushel; do., King Pippin, 5s. to \(5 s\). 6d. do.; Cookers-Queenings, 3s. to \(3 s .6 d\). do.; Northern Greening, 3s, to 3s. 6d, do.; Wellingtons, \(3 s, 6 d\), to 4 s , do.
Stratford, De. 10.-Supply good, demand slow. Cab bages, \(2 s .6 d\). to \(3 s\). per tally; Savoys, 2s. 6d. to \(4 s\). do. Greens, 1s. to \(1 s .31\). per dozen ; do., 4s. to 6s. per tally Caulifiowers, 1s. to 1s. 6d. per dozen; do., 4s. to 6s. pe tally; Scotch Kale, 6d. to \(9 d\). per sieve; Brussels Sprouts 1s. \(3 d\). to \(1 \mathrm{~s} .6 d\). per half-sieve ; do , \(2 s .3 d\). to \(2 s, 6 d\). per sieve Turnips, 1s, 6d, to 2s. per dozen bunches; do., 30s, to 40s. per ton; Carrots, cattle-feeding, 22s. to 28s. do. ; Parsnips, 40s. to \(50 \mathrm{~s} . \mathrm{do}\). : Mangels, 11s, to 15 s . do. : Swedes, 14s, to 17 s . do. Onions, English, 80 s. to 85 s. do. ; do., Dulch, 28.9 d . to 3 s per bag; do., Port., 3s. \(9 d^{2}\). to 5s. per case; Applea, English, cookers, \(2 s .6 d\). to 4s. per bushel; do., dessert, \(2 s, 6 d\). to 48 per barrel: do., Nova Scotian, 11s. to 14s, do.; Pears, English, 3s. to 3s. 6d. per bushel; Beet-root, 28. to 2s. 6d. per bags Horse-radish, \(1 s .2 d\). to 1s. 3d. per bundle; Parsley, 1s. 6d, to 2s. per half-tiere.
Farmingdon: Dec. 12.-Quotations:-Cabbages, 3s. per tally ; Savoys, 48. do. ; Cauliflowers, 5s. do. ; Sprouts, 1s. 61. per half-tally; Celery, 12s. per dozen rounds; Leeks, 2s. per dozen; Parsley, 28. perdozen; Turnipa, 2s. per dozen bunches; Carrots, 2s. do. ; Beetroot, 1s. 6d. per bushel; Parsnips, 3s. per sack; Onions, 4s. 6d. per bag; Apples, Blenheims, 4s. 6d. per bushel; Wellingtons, 4 s . \(8 d_{\text {, do.; Baldwins, } 16 \mathrm{~s} \text {. per barrel ; }}\) do. Newtowns, 16s. and 18s. do. Pears, stewing, Catillan, 8s. per cask ; Grapes, English, 1s. per 1b. ; Almera do., 10s. per barrel ; Canary Tomatos, 4s, and 5s. per box: Walnuts, 68 per bag; Chestnute, 7s. to 118. do. (cwt.)

POTATOS.
BoRODGH: December 10. - Quotations ranged from 358. to 90 s. per ton.
Spitalfields: December 10. - Quotations:-Sutton's Abuadance, 50 s . to 70 s . ; Reading Giants, 45 s . to 60 s .; Bruces, 50s. to 65s.; Main Crop Kidneys, 55s. to 75s.; Hebrons, 608 to 80 s ; Snowdrops, 50 s. to 70 . per ton.

Stratrord, December 10.-Quotations:-Brucew, dark soil, 35 . to 40 s , and 40 s . to 50 s . : Reading Giants, 40 s , to 50 s. ; Sutton's 4 bundance, 50s. to 60s. per ton.
Farnivadon: Decomber 12.-Quotations:-Maincrop Kid neys, 75s. to 85s.; Laxtons, 75s. to 95s. J Jeanvie Deans, \(65 s\) neys, 75s. to 75 s ; Bruces, 50 s . to \(60 \mathrm{~s}_{\mathrm{o}}\); Magnums, 45s, to 50 s . per ton.
Londow Averagrs : Dec. 11. - Dunbars, 90 s, to \(100 s^{\circ}\) Snowdrops, 70s. to 90 s ; Fiebrons, 70s, to 90 s ; Sutton's Abundance, 50s. to 70s. : Puritans, 50s, to 60s.; Regente, 60s. to 70 s . : Magauag, 403 , to 50 s . : Imperators, 40 s , to 50 s . per ton.

\section*{HAY.}

Averages. - The following are the averages of the prices at the metropolitan marlets during the past week:-Clover, prime, 75s. to \(953_{.}\); do., inferior, 50s. to 70 s ; bay, bet to


Cycas STEMb, an a rale, do not produce branches very freely, but in the Paris Jardin des Plantes an old trank which has been injured has produced lateral branches, and a whole colony of lateral bude, now about the aize of egge, are in course of formation. No perfect leaves exist at present, 20 that the neteres is undertain.

Chrysanthemum and Fruit Show in Car. LIBLE.-On Monday, December 9, a large meeting of gardeners and other interested was held at the Bush Hotel, Carlisle, for the purpose of dincuning the desirability of promoting a Chrysanthemum flower show at Carliale. Mr. C. Lonadale, Rosehill, in the chair. After some discusion it was decided to form a ociety to be called the Carlisle and Cambyrland Horticultural Society, and to hold a Chrysanthemum and fruit show under it aupice next antumn, and possibly a flower show at an earlier date. Mr. Sale, of Botcherby, was appointed necretary protem, and the committee then proceeded to appoint office-bearers. The Mayor of Carlisle was appointed president; a large number of gentlemen reniding in the district were appointed vicepresidents ; Mr. Watt, jan., Knowefield, was elected treaarer, and a working committee was likewise appointed with Mr. C. Lonedale a! chairman. Another meeting will be held in the same place aext month, for the purpose of drawing up ralen, lints of premiams, \&cc.


Agabicus: \(X, Y, Z\). What is called the "Sclerotiam" of mome fangas, a kind of bad which remain dormant for a time, and then, when times change, develops into mycelium or pawn. We cannot tell you what the fangus is-very likely it is a atate of the common Muahroom. In any case, if you pick it out, no harm will arise.
Cirtificate in Botany: G. H. H. Yei ; write for particulars to the Secretary of the Science and Art Department. South Kensington, London; or, for horticaltaral botany, to the Secretary, Royal Horticaltural Society, 117, Victoria Street, London, S.W.
French Buan Flowers Droppine: Vindex. The general warmth of the hone is too low. It is true that the seed will germinate at a minimum temperature of \(60^{\circ}\) Fahr, bat something bigher is needed for rapid growth, together with the follest amount of anlight, and a moist heat. No manurial aids are required until a good crop of pods is set. Want of light at this season induces poor development, and your planta may do better at the day longthen.
Frut and Viartable: \(G\). \(G\). Theme popular terms need no definition as regards the eense in which they are understood in gardens. As you must know, many vegetable production are fruit in the sense that they contain the meeds of the plant, as, for instance, Peas, Beant, Tomaton, Vegetable Marrow, Cacumber, Chillies, \&c., which are used as vegetablen. "Vegetables" may consiat of the entire plant, or part of it, minu the seed-vensels.
"Jourgal of the Royal Horticulyoral Society" A Conotant Reader. Apply to the Secretary, 117, Victoria Street, S.W.
Names of Fruit: Masters, Warwick. Pear Vicar of Winkfield. - R. M., Newbury. Freah-coloared Apple King of the Pippins ; and green-striped Apple Striped Beefing.-W.J. W. 4, Cockle's Pippin; 6, Claygate Pearmain ; labela on other detached from fruit, -G. T. M. Applen 2 and 6, Scarlet Nonpareil; 4, Prince Arthar; 7, Colonel Vaughan, othera not recognieed. - Serpell. Appears to be Tyler's Kernel.
Nanks or Phasts: Correspondents not answered in this issue are requested to consult the next number. N. C. 1, Matricaria inodora; 2, Sedum apuriam; 3, A grass, with foliage only.-R. Maries. The letaer Cymbidium is C. giganteum, the larger C. Traceyanum, formerly very rare, but now appearing more plentifully.-W. S. The seedling seema to fail to detect a variation of Zygopetalum Mackayii. We fail to detect the alightent botanical difference from the type. Probabiy the cross wat not effected.I. R. Babiana atricta.-E. J., Aberdeen. 1, Davallia Tyermanni; 2, not possible to name from the imperfect barren frond sent; 3, Lastrea Glabella; 4, Pteris argyizè; 5; Adiantum Baimite;

1, Saxifraga cæspitosa; 2, Pceriz cretica albolineata; 3, Lastrea aristata; 4 , Pteris tremula; 5. Applenium bulbiferum; 6, Adiantam caneatam grandiceps.
Notice to Leave Emplotmbnt: \(\boldsymbol{R}\). A. If there in no serious fault on his part, the gardener living in the entrance lodge is entitled to one month's wagen; and if he is obliged to remove forthwith he can claim compenation for lodging, coals, light, \&c., if he have these perquisite, for the space of one month from the date of notice.
Orchids: \(R, T\), Falkirte. The finent \(\mathrm{D}_{3}\) Wardianum we have seen. The other is Cymbidium Traceyanum, illustrated in the Gardensrs' Chronicle, 1891. It was an extremely rare plant, bat recently we have seen several specimens.
Pear Auguste Mignard: \(H\) of Sons, and J. Barnett. We find that this variety, described by the late J. Scott of Merriott, is mentioned in their Guide Pratique by the Brothers Simon-Louir of Metz, which was pablished in 1876. It is there said to be a variety (raised by Gregoire) under trial.
Royal Hobticultural Society: Bot. If you mend in your request, together with the annual subacription, to the Secretary, 117, Victoria Street, Westminater, your name will be proposed at the next meeting of the Society, and donbtlens you will be accepted as a Fellow.
Seedling Pelargoniums: \(B, \notin R\). The variety you send is one which produces a very large trase, but the individual blooms are not nearly to fine as many varieties already in caltivation.
Sondews: \(L\). \(G\). Aldrovanda vesiculoss is mentioned by F. von Maeller, Fragm. vol. 7. It is Australian. Riridula dentata, was figared in our pages, Sept. 26, 1891, and in the ame issue are figurea of Drosera dichotoma, D. capensia, D. pathulata, and Dromophyllum lusitanicum. The apecies of Byblis are B. gigantea and B. linifora, the former having the synonym Lindleyans, and the latter those of filifolia and corralea. Both species were introdaced in 1848, B. gigantea coming from the Swan river
diatrict. Polypompholyx numbers four mpecies, diatrict. Polypompholyx numbers four species, viz, bicolor, laciniata, introduced in 1847 ; maltifida, and tenella, introduced in 1855. Most of the Sundewe and allied genera will grow in aphagnummons avd a mall quantity of peat in well-drained pots atood in pans of water; and propagation is by means of seeds, and atrong piecen of the root cut into 1 inch or \(\frac{1}{3}\) inch lengthe, placed in ahallow pans, and slightly covered with wandy peat, and put under a bell-glam. In five weeks there pieces will be fit to pot singly. Mont of them nucceed under greenhouse or intermediate-house condition.
Tree Labels: E. R. Oaken atump 3 feet long and 3 inche square, charred for a distance of 2 feet from the lower end, and driven into the ground to a depth of \(1 \frac{1}{2}\) feet, are as good as any, being very durable, and not easily drawn out of the earth. The top should be cut at a convenient angle to seceive the name or number, which should be in black oil paint on a white ground. The reat of the label hould be painted either of a green or slate colour.
Turnip: W. C. No larva found,

Communications Received.-E. R. Paris, -C. S. S., Boston,
U.S.-K. W. \& Co.-H. de V. Paris,-W. J. B. (many U.S.-K. W. \& Co. - H. de V. Paris.-W. J. B. (many
thanks), -G. S.-B. \& M. -G. M. -W. R.-W. L. A. I.thanks) -G. S.-B. \& M.-G. M.-W. R.-W. L. A. I. -
W. J. G.-W. \& S.-T. H.-T. H. La Mortola.-H. H. D. W. W. D. B. - Ernest Bargman.-M. P. - Canon E. - - W. B.T. H.-W. Fo-T. P.-G. H.-W. R-Ch, de B., Antwerp.

 -H.W.

CONTINUED INCREASE in the CIRCULATTON OF THB "GARDENERS" CHRONICLE."
MPOBTAIT To ADVERTISERE.-The Publisher has the satisfuction of annowning that the circulation of the "Gardeners' Chronicle" has, since the reduction in the price of the paper.
Increased to the extent of more than 80 per cent., and that it continues to increase weekiy.
Advertisers are reminded that the "Chromicle" circulates anown
 AND GABDRM-LOVERS at homa, that it has a speciatly large
 preserved to maromes in all the privelpal Labravies.

Cheap covert plants, viz, Rhodoper dendron ponticum, strong. 2 to 3 feet, 15 s. per 100 . \(e^{7}\) Near Matlock, Derbyshire

\section*{GRAPE VINES AND ROSES. JOHN COWAN and CO.}

Have this season a large and splendid stock of Grape Vinee
suitable for Fruitiog in Pots and Planting Vineries suitable for Fruitiog in Pots and Planting Vineries. Also a
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Descriptive and Priced CATALOGUE post-fres on applitan tion to the Company

The Vineyard and Nurseriee, Garston, near Liverpool.

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Well furnished and well budded, with from seven to tweaty buds, consinting entirely of the rellable hardy kinds; the MAJORITY BEING ON THEIR OWN ROOTs, they ase without

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All the most besutiful varietien, varying in height from 1 ANTHONY WATERER,
KinAP HILL NURSEBY, WOEING, SURREX


ILLUSTRATED CATALOGUE FREE.
W. Jones' Treatise, "Heating by Hot-water, Second Edition, 218 pages and 98 Engraviugs,

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ROBERT WARNER \& CO:'S \({ }_{\text {nez }}\) taress WINDMILLS.


Prices from 217, including Pump and Timber Supports.
May 27,1893 , The Dell, Englefeld \(G\) ecn, Surrey Bobert WARMER \& Co. Eugineers, 27. Jewin Crescent, E.C. Dear \$irs. - It affords me much pleasure to inform you the 23 ft . Annular Sail ceared Windmill, on 40 feet timbers, working \& get of \(3 \mathrm{in} . \times 9 \mathrm{in}\), stroxe treble pumps, that you fixed here for Baron Schröder, is giving very great satiafaction pumping the water through 4.224 feet of pipe, to a vertical height of about 80 feet. I must also exprese my thorough appreciation of the manner in which the whole of the worl has been so succesefully carried out.-Tours faithfully,
W
WARNeir a Co. have made and erected a cimilar Mill and




\title{
Wm. COOPER, Ltd., NINTH ANNUAL CLEARANCE SALE
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(The Largeat Steam Horticultural Works in the World.)
Show Ground: DEVONSHIRE GROVE (adjoining).
Nurseries (the most complete in the kingdom): FELTHAM and HANWORTH.
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CONDITIONS OF SALE.-Goods are offered subject to being on hand on receipt of reply. Cash to accompany all orders, and prices to be strictly net. All orders will be excuted in rotation, and carefully packed and put on rail, except those otherwise stated.
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Estimates given for Timber, Iron, Glass, Heating Apparatus, Poultry Appliances, \&c., \&c.

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(F) Guaranteed to clear out Mealy Bug

Cleanse and prepare your Fruit Trees and Plants, both indoors and out, for a healthy start next season, and destroy Scale, Bug, Red Spider, A

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A pare Nicotine Preparation (urder a new system), from dutytre Tobacco. Absolutely safe, and no fear of iojury to the buds. In use goes twice as far as any other Insecticide.
Per Pint, 2s.; Quart. 3s. 6d.; \(\frac{2}{3}\) Gallon, 5s.; 1 Gallod, 10 .
4 POSITIVE PROOF.
The following is from one of the largest Market Growers round London, having acres covered over wilh g.ass-houses:-

Mr. THOMAS ROCHFORD writes,
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Near Brozbourne, Herts, Nov. 9,1895
Please send me on 2) gallons of your XL ALL Liquid In ecticide; I consider this is the most effectual and cheapes Insecticide I have ever used.

To be obtained from all Nurserymen, Seedsmen, Florista, and Sundriesmen; or, direct from-
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used by the leading gardenfrs. 1 pint, \(2 s . ; 1\) quart, \(3 s .6 d, \quad ; \quad \frac{1}{2}\) gallon, \(5 s_{0} ; 1\) gallon, \(9 s . ~\)
3 gallons, \(24 s\). JOSEPH BENTLEY,
Chemical Works, barrow-on-humber, hull \(G^{\text {ISHURST COMPOUND, used sinoe } 1859}\) for Red Spider, Mildew, Thrips, Greenfly, and other blight; 2 ounces to the gallon of soft water; 4 to 16 ounces as from dake, for American blight, and as an emulsion when paraffin is used. Has outlived many preparations intended to supersede it. Boxes, 1s., 3s., and 105 . \(6 d\).
GISHURSTINE keopn Boots dry and soft on Or wet ground. Boceis, GA, and '1, from the Trade. Limitad), Kandoa.

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The very best for all purposes.
The result of many years' experienoe. Largely used both at home and abroad.

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HILL \& SMITH, \(\underset{\text {, }}{\text { near DRLEY }}\) DIILL,


As above. The Famous POROUPINE TREE GUARD,

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Supersedes the ordinary Garden Grating, and is especially suitable for hilly walks and drives.
They are never stopped up by rubbish and sand, and effectually prevent the gravel being washed away in heavy atorms.

Prices : -8 -in., 23 .; \(10-\mathrm{in}\)., 38 .; 12-in., 63. 6d (The largest size is for Carriage Drives.)
Full Particulars and Testimonials on application.
Estimates given for Draining and Laying out Grounds, \&ce.
VINCE \& VINE,
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Otto Putz, Erfurt-Trade List of Seeds.
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\section*{GARDENING APPOINTMENTS.}

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Mr. E. Marseall, late Gardener at Mount Ballan, Chepotow as Gardener to D. C. APPERLEY, Eaq., Hetherett, Reigate gurrey.
Mr. G. R. Beale, for the past six years Gardener at Sezincot, Glos, as Overseer to Mrs. Macpherson, of the Blairgowrie Estates and Fruit Farm, Perthshire.
Mr. T. Mooriouse, formerly of Lockinge and Chatsworm Gardens, as Gardener to A. H. Mills, Esq, Mapledurhath House, Reading.
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SATURDAY, DECEMBER 21, 1895.
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\section*{CONTENTS}


\section*{NOTICE TO ADVERTISERS.}

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Tuesday, December 31. - Prellminary Notice. Great Sale of 790 cases of Japanese Lilies, comprising :, 312 LILIUM AUB
\[
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& \text { RUBRO- } \\
& \text { sPEČIOSUM ALBUM. } \\
& \begin{array}{l}
\text { RUBRUM. } \\
\text { MELPOMENE }
\end{array} \\
& \text { longiplorum } \\
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Deceomber 31 , at \(120^{\prime \prime}\) Clock.

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By order of Mesars. R. Wallace \& CO., of Culchester \(n\) importation, direct from Japan, consisting of 250 plants of hemerocallis aurantiaca major. This nagnificant new species was awarded a Firgt-class Cer-
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NOTICE TO ADVERTISERS.It is particularly requested that all Advertisements intended for next week's issue, should be addressed to the Publisher, and should be so despatched as to reuch this Office not later than Tuesday Morning Next.

\section*{THE}

Gardemers Chronidl.

\author{
SATURDAY, DECEMBER 21, 1895.
}

\section*{ENGLISH GARDENING.}

MISS AMHERST is well known to all lovers of old gardening literature for her pablication in last year's Archeoologia of the fifteenth century treatise on gardening by "Mayster Ion, Gardener," and the careful way in which that interesting treatise was edited by her, showed that she was well capable of larger efforts in the literature of gardening. The handsome volume now before us bears ample testimony not only to her skill and perseveranoe, but to her power of massing together a very large amount of petty details into a book that is throughout very pleasant reading.* The foundation of the book was laid by some excellent papers "On the History of Gardening in England down to the reign of Elizabeth," by Mr. Peroy Newbery, whioh appeared in these pages in 1839 ; and on this foundation Niss Amherst has made a continuous history of English gardening, starting from the thirteenth century and reaohing down to our own day. It is almost a pity that she did not tell ns more of the earlier periods, even starting from the departure of the Romans, for though the accounts of gardening in the days between the sixth and thirteenth centaries are very meagre, there is yet enough to show that from the very first the English were a nation of gardeners; and there is a good reoord that in the eighth century, when the AngloSarons were using the Latinised names, of which Miss Amberst gives a list on p. 3, there was a far larger number of true native British names of plants, showing that the Englishmen of that date were suffioiently acquainted with plants to give them distinct names. But English gardening, as indeed must be the case in all nations, is largely interwoven with English history, and this Miss Amherst brings out very well ; her first sentence is, "The history of the gardens of England follows step by step the history of the people. In times of peace and plenty they increasod and flourished, and daring years of war and distarbance, they suffered." And so she shows what difficulties there were in the way of good gardening till the end of the fifteenth centary, when, in "the comparative peace which followed the termination of the Wars of the Roses . . . the gardens were no longer of necessity confined within the embattled oastle walls . . . and the custom came in of having gardens beyond it. With this additional space, there was more soope for play of fanoy, and before long several changes in design came in." From that time to our own the progress of gardening has been uninterrupted, and Mias Amherst takes us through the gardens of the

\footnotetext{
* A History of Gardening in Exgland. Hy the How. Alicin Amherat. London: Quaritch.
}
different periods; the Elizabethan gardens, which owed much of their beanty to the refugees from the Continent, who "brought with them nome of the foreign ideas about gardening, and thus helped to improve the condition of hortioulture"; through the stiff gardens of the seventeenth centary, which were so largely destroyed (but of which, there are, fortunately, so many good remains) by the so-oalled natural gardening, or landscape gardening, down to the "bedded-out" gardens of our own day, and their partial destruction leading to the wild gardens and rook-garden, whioh are now the fashion.
One great value of Mise Amherat's book ir, that the bas brought together into one volume an immense masa of information of which very little is new, but which wan scattered through many different publications. The labour that she has apent in finding out these different soarce of information mat have been very grear, but the result is excellent. She hav aearched old cartulariep, piperolls, surveys, and probably hundreds of books, more or less bearing on her sabject; but perhaps the most interesting extracta that ohe has given us are those from the different accounts of garden expenses at various timer, and in different part of the country, and the bill for fruit and other garden produce maplied to Royal and other great houses and ahe has shown that, from the firat, the gardener was an important personage in all great establishmentr, and that the body of gardeners of London were of anch atrongth that they could dety even the Lord Mayor of London, and could demand and obtain a charter of incorporation which was far more in accordance with their own demande than with the wisher of the Lord Mayor.
We muat pate by with merely a word of notice the chapter on monastic gardening, though it contain much of intereat, to way something of the chapter on the literature of Eoglish gardening. The literature on any art or acience must always be an index to the existing condition of the art or science, and it is so in Eoglish gardening literature to a very marked exient. Nothing shows better the atate in which gardening was at different times than the book which appeared from the aixteenth century downwards ; and, therefore, Mise Amherat has done well to give very full accounts of gardening literature, with a long list of the writers. The value of these chapter is that they are placed side by side with the accounte of the gardenf, and so far they have a distinct value; but here, toe, there is nothing new, and the doen not seem to be aware of the many aimilar lista given by other writery, as by Pritze), Miller, \&c.; nor doen the seem to be aware of Palteney's Progress of Botany in England, 1790, an excellent book, though now almost forgotten, which may be Miss Amberst's excuse for not mentioning it.

We had noted neveral other pointe on which we should have liked to have aaid more, bat apace forbids. We must, however, find room for a few points on which we do not altogether agree with Miss Amberat; and we note them, not for the purpose of fault-fiading, bat in the bopee of helping her in preparing for : second edition. She in so ladably particular in giving full reference for all her statementr, that we should like to know the authority for the atatement (p.23) that "rosery," in some old documente of Ely, is not a Rone garden, but "a bed of Reede and Raihes." It it ac, no doubt, in the French cartuliriew, being derived from roseay; but we thonld question its being so used in Eaglish cartalaries. We are eorry that she adopte (p. 137) the exploded fallacy that the Jerusalem Artichoke in mo called from the Italian giratolo, for which there is no authority whatever, and her own quotation about "Jerualem Peare" might have shown her the mistak ; and we think she is miataken in asying that 1722 asw" probsbly the lant serious attempt at Vine culture." There it full evidence that exceltent wine was made in large quantities of Claverton, in

Someratahire, and tithes on Grapes were taken later than 1722 at Cromball, where are atill very complete remain of the old vinejard. Bat leaving all these mall deficiencier, we gladly conclade with thanks to Mise Amherat for the very pleasant book the has given uf, and with congratalation to her for having brought her long labours to such a satiafactory conclasion. A word of praise also is due to the getting ap of the book; paper, print, binding, and illustration are all that

can be desired, and it closes with two good inderengood, that ir, an far an they go, bat the book itself is mo full, that a much fuller index would be very acceptable in a afcond edition.

\section*{New or Noteworthy Plants.}

\section*{LeLIA ANCEPS var. LINEATA, new var.}

Is Lord Rothechild's gardens at Tring Park, Tring (gr., Mr. E. Hill), the house filled with the now numerous and beantiful varieties of Leiia ancepp, both white and coloured, annually make a fine how, and are counted among the most usefal of winter-flowering Oichids. Among them is a remarkable variety, flowering for the firat time. The petala are of the sizg and rich rovecrimson
colour of an ordinary good L . anceps. The front lobe of the lip is of a glowing criman, and the sidelobes are veined and atriped with a similarly bright hue, but the chief distinguishing feature consista in the epals being white at the base, the outer half of each and the margins being rosecrimson, the white basal halve having some clearly-defined chocolate lines on them as though dsawn with a pes, constitating a very peculiar and diatinct feature. J. O'B.

\section*{Constantinople}

\section*{ANONA CHERIMOLIA.}

Allow me to highly recommend thin to the notice of your readers at being a frait-plant, well worth cultivation. I am aurprised that the plant does not meet with general approval in Eogland, for the exceedingly choice fruits are obtainable from December to about February-a time when other fruit is necenarily acarce. I myself have only one plant, planted out in a house with other semitropical fruit treep, and although the position is not of the best, I obtain every year about a dozen fruits eacb, the size of a Pear. By the ame post I am sending you a fruit and a photrgraph of the tree as it atands (figs. 121, 122). Next to this plant we have planted out Auona quamors, A. Cherimolia Loxensif, which have also fruited this year. Anona quamone is generally well known, but A. Cherimolis Loxensis is mach more rare, and the frit, according to Linden, mast be auperior to that of Anona Cherimolis, which it resemblen in shape and size, but it has the skin raised all over the surface so to form little minee. Joh. Dekkers, Gardener to His Excellency Aristakes Azarian, Buyukdere, Constantinople.

\section*{The Rosary.}

\section*{STOCKS.}

Taz opesation of badding is to pleavant and striking in ita renults, that even where exhibiting is not thought of, many amateurs practise it ; ladies eapecially are fond of it, and their deft and delicate handling maken them very auccenful operators. Of coure, no amateur can contend with the professional badder, who rattle them cff in leas than no time, and whose quicknes neeme to many almost incredible. These amateare, then, will have to determine what atocks they will use, and how they will use them.

The question of atock is one which hat alwaye exercised the mind of rosariant, and while one is adrocating one kind, and another a different mort, I fear that jadgment will have been formed in many casea without due consideration for the character of the soil for which they are required, or for the varieties of R see to be budded on them. Varioul kind have been from time to time recommended, but for all practical parposes account may be taken of only four. De la Grifferaie, Napoleon, Celine, and other kinds, have been from time to time recommended, and our late Japanese Polyantha has been highly spoken of for Tea Roses, bat I think that few amateura will try experimenta, and therefore I shall confine myself to the four kind most geverally used.

The Briar.-The Dag Briar, or wild Rose, of our hedge-rows and woodlands; the Ssedling Briar, tte Biar cutting, and lantly, the Manetti. The Djg Briar is used almont exclusively for atandards and half-atandards. The introduction of dwarf Roses has conaiderably altered the practice in this particular ; standard are very much gone out of fashion, and the Ruse amateur use them only for his Teas and Noisetter-he is atill firmly persuaded that in no other way can he get auch exhibition blooms an from half atandards, and therefore the "Briar man," of whom Dasn Hole so humorounly writes, is atill in requisition. All Briar atocks ahould by planted about this time; of course, as they are received there is very littlo

Abrou root, and beginner might wonder where the roots were to come from-but no little atrese is laid upon these that I know one friend, at any rate, who pares off all the fibrous roots which are on the atock when he receives it, for he does not believe that the roots which are on the stock when he gete it are of any value. It is nomewhat carious that, notwithtanding thene stocks are obtained from our own hedge-rows, they esaily auccumb to hard front, and daring the earlier part of this year I know that 70 per cent. in some cases were killed; and I recollect reeing some years ago a plendid piece in the neighbourhood of Paris, of nome 30,000 which had been budded the year before, and were grand plant. of all the best kinds, but every one of them perished. For thene reasons I think all beginners, and all new exhibitors, ought to avoid a standard Rose. It is
with care the hips of those varieties which he know to be most nsefal. The process for preparing the seed for sowing \&c. is somewhat tireame, and few amateurt would care to go in for auch large quantitien; and reedling plants which will be fit for budding can now be obtained at any of our narserier, and should be planted in rows, the plants being about 6 inches apart and so placed that the portion for budding should be covered during the winter, which covering may easily be removed when the time for that operation comes on.

Briar cuttings has been of late years much in use ; it has its advantages over seedling Briar -itis, indeed, suited for a different kind of soil. The seedling Briar sends down its roots, and is suitable for atiff soils -indeed, Mr. Prince eaya for all moils; but the Briar cutting apreads ont its roots, and is therefore more


Fig. 122.-anona cherimolia, in fruit at constantinoplp. (see p. 734.)
not a thing of beauty in itself, and for years past I bave not grown one. It is true I am not an exhibitor, but I fancy that I have from dwarfs had as good bloom as could well be denired. I may asy that where standards are used it must never be when the woil is light, as they are apt to throw out suckers a long way from the plant, and to cause a good deal of trouble.
The Seedling Briar.-Some yeara ago, Mr. Prince, of Ozford, brought forward the seedling Briar, which had been previously uned a good deal in France, especially for grafting in pots, but he need it ont of doorn for Tea Rosen, and it has unqueationably become to be the recognised atock for that beantiful class. It in not too vigorouv in growth, so that it doen not overpower the acion; it is not so early as the Manetti, and so consfquently better escapes frosts. It is a somewhat nifficult stock to bud as the stems are so mall, bat it is pretty are to take if properly managed. Mr. Prince is of opinion, I thinls, that all Dog Rone are not equally valuable, and so collect
anited for light aoile. Both of these atock do, I believe, equally well for the Teas and Noisettes, and no one I think now-8-days thinkt of uaing the Manetti for that purpose.

The Manetti.-I now come to consider the Manetti, the introdaction of which; by the late Mr. Riveri, of Sawbridgeworth, hat so largely contribated to the increase of Rowe culture in this country. Some fow yeark ago there was a great outcry againat it, all kind: of evil practices were ascribed to it, and it days were said to be numbered. This was in ituelf ridiculour, for it mute over bo borne in mind that the amatear champion of former days, anch as Mr. Baker of Exeter and Mr. Jowett of Hereford, grew all apon the Manetti, whilst some of the finent bloom of the present day are exhibited from the same tock. Mr. Rivers received this atock some fifty yeart ago from Signor Crivelli, of Comr, who recommended this as the bent atock for all Romen (in this he wat mistaken). It wat atated by him to have been raised from seed by Signor Manetti, of the

Botanic Gardens of Mouzs. That it hat been a great boon to nurserymen and to all growers of the hybrid perpataal clan there cannot be the slightest donbt it is too vigorous for Teas, and there has been mach heartbarninga in convequence of the attempt to bud them on it-in fact, it is too vigorous for many of them and the atock overpowers the acions. It has another disadvantage, too; if all the eyes are not carefully cat out below the bud, they are apt to atart into growth, and many and many a time have I been aaked to account for a \(R\) me not blooming, when on looking at it I have found that the Manetti had completely overpowered the bud, and the foliage being somewhat like that of the Rose, the grower badallowed it to develop itnelf, leaving him with a fine bush of the atock inatead of a Charle Lafebvre or Marie Baumann, which he looked for. Manetti plante may be now easily procured from a nuraeryman, but it is very easily propagated from cuttings. The should be prepared as follows: the cuttings ahould be about a foot long, and ahould be cleanly cut just below a bud, in a straight line; all the eyes should be carefully cat out except a couple at the top, the catting should be cut in a slanting direction just above a bud. Mr. River give the following directlone as to planting them, and I do not think that the directions of that Rose-wise Neator can be improved upon: "In planting, the section of a ridge has to be formed, the cutting placed againat it, and the earth dog ap to it and firmly pressed; when finished the row of cuttinge should atand in the centre of a ridge about 8 inches higb, and only one bud of the cutting above the surface. From being thut moulded up, no exhatution taker place daring the dry froat of winter and spring, and every cutting will grow; in Jaly or August of the following season they will be fit to bud. The ridge mat be levelled so at to expose the main stem of the cutting; and, in this, at about 3 or 4 inches from the bottom, the bad must be inserted. The atocks thould be budded as soon as posible after being uncovered, or the bark will become rigid and will not open freely." As I have already said. care should be taken about ahoots coming from the atock, for however carefally the eyes have been cut out, some will probably have excaped notice. Let me alto asy that care ahould be taken as to the varieties which are used: for all weat-growing bybrid perpetuale the Manetti abould be avoided. for thougb, as a rule, it is well adapted for that class, it is ide to attempt to grow some of them on it, nuch binds an Horace Vernet and Lonis Van Hontte, which are ahort-lived on all atocks, very soon succamb to the vigour of the Manetti ; and experience will perhap: teach the grower that there are some other sort which in his soil and situation will not succeed on it. In fact, this experience is a abjuct which greatly enters into the secret of accessful Rosegrowing, and it is perhap only after mome failure that wished-for reault can be obtained. Wild Rove.

\section*{THE PLANTS OF THE BIBLE.*}
\(W_{k}\) are frequently asked to recommend acme book on the plants of the Bible, and if the queationer is not a profesed botanist, we have nome difficulty in giving a satisfactory reply. Some are too cutly, come are too auperficial, most are written by authors whone botanical education has been reglected. Neither of these charges can be brought about the premont little volume. It may be had for a thilling. The information it contain is trnatworthy, the anthor is an accomplished botanist, and familiar with the Mediterranean flora. Professor Henslow has solved our difficultief, and we shall confidently recommend his little book to those weeking information. The interest of the subject never flaga, and owing to the coniguration of the country, the flora of the Holy Land, an of Egypt, is pretty much what it was in those far-off time with which the earlier ss well as the later chapters of the Bible are concerned. Looking at the mitter from a parely botanical point of view, we may point out the difficalty, nay, in aome caven,

\footnotetext{
* The Plants of the BiMle, by the Rov. Gearge Eleutow,
} M.A. (The Roligious Tract Society.)
the impoasibility of assigning to any particular word a specific interpretation. The names are often used in a broad generic sense, and although we are told that Solomon "apake of trees from the Cedar tree that in in Lebanov, even unto the hyssop that apringeth out of the wall," we are not told that he wrote of them, atill leas, that he formed a herbariam by mean of which we moderns could determine what the trees were of which he spake. In the verse quoted, there is of coarme no doabt as to what Codar that is intended. It is in Lebanon still ; but what was the hyssop? and what was "the thintle that was in Lebanon and sent to the Cedar that was in Lebanon"? The words in the last citation aro doubtless used in a metaphorical sense; but with reference to H yseop, some eighteen aromatic Labiatea and one Caper have been mentioned, as in the opinion of divers commentators representing what is tranalated Hynsop

In the present little treatiae, we have firat an introduction, and then, in succession, chapters on textile materials, herbe nsed for culinary or medicinal parposer, fragrant gams and perfames, fruit treep, timber trees, desert treer, and aquatic planta.
To show how miatakes may ariae, and be perpetuater, we may mention how Gerarde, following De L'Obel, figares pitchers of the North American Sarracenia as the leaves of the Frankincense tree! The mistake is the more interesting, an this is the firnt notice of the Sarracenia that existe. The whole story was given in our colnmnr, Jan. 7, 1893, p.'11, and formp, we venture to aly, one of the most carioun inatances of "jamping at conclution" that could be cited. The origin of the Sarracenia pitchers wat forgotted, their natare andetected, and \(n 0\), by mischance, they got taken for the leaves of the Frankincense tree. It is needlent to asy, Profeanor Henslow falls into no auch blander, but aimilar error in the determination of other Biblical planta might probably be cited. Gaido depicts the crown of thornt as composed of the atout apines of the Gledituchialike the Sarracenir, an American plant. Othert more reasonably, uggest the Paliarne, which is common in Palestine, or the dwarf Poteriam spisosum.
The "Willow" by the rivers of Babylon waa presumably not, at Professor Honalow eupponer, a Willow, but what we now know as Popalus euphratica. Salix babylonica is of Chinese or Japanese origin, and if the Weeping Willow exint now in the valley of the Eaphrater, it has probably been introduced. Boisaier does not mention it as a native of Menopotamia, but eaye that probably some other specien has been mistaken for it. But the ubjects for comment auggented by Mr. Henslow's book are far too numerous for us to dilate apon We have indicated the general nature of ite contente, and we cordially recommend all those intereated in the aubject-as who is not ?-to make themelven the possessors of this auggestive little book.

\section*{CHRISTMAS ROSES.}

Ir the hardy plant garden at this season of the year, we have no flowering plant of such beauty and worth an the Chriatman Rowe, producing regalarly, as it doel at this dull meason of the your, fine mases of flowert, of perfectiv hardy and enduring character. To the gardener and caltivator generally the plant need present no great difficulty, if only a few esmentiale receiveattention. When very near to large manufacturing centrer, they frequently suffer from the effect of amoke, and the plants lowe much of their foliage. Where this is the case, the flowers are aure not to bs satiafactory; bat when grown in pare country air, the planta attain a vigour and luxariance which is a plesaure to behold. In many parts of Gloucestershire they are anaally excellent, and equally so in many party of Chenhire. In one instance, in the firat-named county, in an ordinary market garden, I have seen an acre of more of them in fine clumpe; and around Buth one may see many good clumps in the cottage gardens. In private gardong, where they
can be given epecial treatment, very few plant indsed more fully repay it, or more quickly.

The woil ahould be of good depth, and fairly rich. In Middlesex, on a light soil, which in ummer frequently become dut-dry everal inches deep, the plants uffer a good deal, and in these inatancea shade is of conaiderable service. Where posaible, 2 feet, or even 3 feet, deep of good soil should be given them, an the deeper the rooting median, the leas will the plants saffer from excesnive drought. It is aurprising the depth to which their roots dencend when opportunity is given them, and the benefit they thus obtain is equally marked. Hellebores, and those of the niger section in particular, are impatient of frequent removal, and care should be taken to treat them well when tranaplanting is rendered necessary.
The beat time in the year for dividing and replanting them is in early autumn. Of course, to aplit up large planta at this time incurs a aacrifice of flowers, and for this reason only a limited namber thould be broken up at one time. If carefully done, however, one large apecimen may readily be broken into a dozen and often a acore of piecea. Those who do not care to break up plants in the autumn will find the next beat time to be when flowering in complete. It is a common practice at this aeason of the year to lift good flowering roote and pot them for decoration in the greenhouse and coneervatory All auch plants, when flowering is past, ahould be broken into smaller piecer, and replanted, and on no account let them be planted back in the old clamp, as when thia in done they invariably decline in vigour. Benide planting them in a variety of positions, it is a good plan, if cut flowers are largely in demand, to plant some in apecially-prepared beda, and in auch a way that the bloom may be protected at flowering time. If lights are placed over them, blossoms of greater purity result, and sometime increased length of atem also. A very fine effect may be produced by growing Christmas Roses in large pots, or even tubs, plunging them their full depth in the open ground during nummer, and aupplying them plentifully with water and liquid-manare throughout the growing season. In this way their handsome foliage would be for the mont part reo teined, and it would add greatly to the general effect. J.

\section*{THE FLORA OF BOURBON.*}

Da. Cordemoy's new book on the flora of this beautiful island fils a gap in botanical literature, and in one of the most intereating contribation to syatematic and geographical botany of recent years. Baker's Flora of Mauritius and Seychelles appeared nearly twenty years ago, and the botany of Madagascar is now fairly well known, although there is no connolidated deacriptive account of the 5000 , or thereabouts, species of plants, published and unpublished, known to inhabit that country.

Commerson botanised Boarbon about the middle of the laat century, and made very extenaive collections, supplemented by copious notes and drawings; but he died before he had completed his work for publication, and his planta have, to a great extent, like the fraits of many other Freach expeditions, lain undisturbed in the rich national herbariam at Paris. Aubert du Petit-Thouars went to Bourbon in 1795, and remained there three jears. After his retarn to Paris, he published several important worky on the botany of this and the neighbouring islands, including Madagaecar, notably hiv Histoir Particulière des Plantes Orchidées recucillies sur les trois Iles Australes de 6 Afrique: de Françe, de Bowrbon, et de Madagascar.
Gandichand, another French botaniat of eminence, visited the island in 1818, bat his collections were lost in the wreck of the Uravic, near the Falkland Lulands. He returned to the island in 1837, in the Bonits, and subnequently wrote the botany of the voyage. This is incomplete, yet it is one of the mont interenting of the earlier contributions to insular floras.

Flore de lifile de la Réunion [Bourboo], par E. Jacob de

Several other botaniat have vinited the island and many of the peculiar plant have been described and figured in varion pablications. For the first time an attempt has been made to give the world at complete an enumeration of the plants as the author could, under the circumstances in which he is placed. Unfortunately, Dr. Cordemog had to work an beat he could, on the pot, or not at all; consequently the very extenaive old collections in the herbaria of Earope could not be utilised, or only to a amall extent by friends at home comparing odd apecimens for him. He therefore does not pretend to completeness ; and aa the greater part of the original foreste have disappeared in Bourbon, just as they have done in Mauritius, it is probable that many apecie that formerly inhabited the islend, no longer exiat. Nevertheless, a comparatively rich flora is deacribed in the book ander notice.
Boarbon is about the ame size as Mauritias, from which it is now separated by about 100 milea of sea, though it seem: probable that they were joined at some remote period. The mountaine rise to an altitude of more than 9000 feet, or nearly three times the height of the highest summite in Maaritian, and the inland presents a great variety of climatal conditions. Rain is abandant during the nummer month-November to April, and the mean temperature at St. Denis, on the coast, during this season is about \(26^{\circ} .5\) ( \(80^{\circ}\) Fahr.), sometimen rising to \(32^{\circ}\left(90^{\circ}\right.\) Fahr.). In winter the mean is \(20^{\circ} 5\) ( \(69^{\circ}\) Fahr.), and at St. Benoit \(12^{\circ}\) ( \(54^{\circ}\) Fahr.) On the Plaine des Palmistes, at an altitude of 3000 to 3500 feet, the thermometer drops in mid-winter to about the freezing point, and very rarely \(6^{\circ}\) Cont. ( \(22^{\circ}\) Fahr.) below. At 7000 to 7500 feet ice is ametimes found as late as November.

Formerly nearly the whole inland was covered with forest from the seashore up to an altitude of about 6500 feet. Bat for half a century all the available land in the lower region has been cleared for cultivation, and the native vegetation in replaced, where not actually under caltivation, by foreign weed. At the present day the forest region com mencer at 600 to 2500 feet.
Mont of the prominent and uneful foreat trees are common to the Mauritius, as are all of the Palma. But what is more remarkable, few of them are found elsewhere, though many of the genera of the region extend to Madagactar. In fact, there are vpry few genera peculiar to either Bourbon or Marritius, bat several restricted to the two, indicating that thene islands are separated remuants of a formerly more extenaive area of land. On the other hand, peculiar apecies are very numerous in both islands. Dr. Cordemoy and his collaborators, for he has not worked out all the orders himeelf, deacribe upwards of 200 species of flowering plante al new, in a total of leas than 1000. More than seventy of these new apecies are Orchids, and the aathor expresses his conviction that many terrentrial apecien jet remain undiecovered, an they are, many of them, very amall and inconspicuous, and their period of vegetation is of very short duration. Iadeed, a it is, the namber of specien of Orchide enumerated is 172, or more than donble the number of any other order of flowering plante! The island is alco exceedingly rich in Ferns and Lycopoda, which number together about 220 upecies. It is true that the author takes a narrower view of apecies than he probably would do if he were dealing with the Ferns of the whole world; but even after deduoting 20 per cent. on this accoant, there remain nearly a third more than there are in the Fern-flora of New Zealand. Not only are the apecien numerous, but between thirty and forty genera are represented. Tree and Filmy Forns are present, though they do not abound to the extent they do in the far-away mouthern country.
Retarning to the Orchids, we find that epiphytal and terrentrial specienare bothsbundant, though the latter preponderate numerically as to apecies; yet, as they arelens conspicuousindividually, and many of themaro exceedingly amall and rare, they are lens evident than the former. Among epiphyten the genus Angracum utand first, numbering about thirty apecies, inclading
the showy A. superbam, A. ebarnenm, A. gladiifolium, A. fragrans, and A. palmiforme. To these Dr. Cordemoy adds the following Orchid an noteworthy for their ornamental character: 庪onia macroatachya, \(\not\). eroatris, \(\mathbb{E}\). brachyatachya, Phojua longibracteatas, Calanthe sylvatica, Corymbis corymbona, Cryptopus elatus, Ealophia scripta, Habenaria prealta, H. ventricoma, Satyrium accenu, Amphorchis diacolor, Saccolabium quamatum, and \(S\). atriatum. Cordemoy also mentions Amphorchis discolor and Arnottia mauritiana as remarkable for their highly carious dimorphic flowern, "like the flower of diatinct genera on the aame pike; " but he gives no description of them.
The intermediate and upper zonen of vegetation comprise apecien of Phillipia, dwarf ahrubby Ericacf \(\mathfrak{x}\), Hypericum, Phylica (very numerous in South Aírica), Psiadia, and shrubby pecies of Senecio, prominent among which is the endemic S. Ambavilla, Favjasia and Eriothrix are other characteriatic
over, and a "perfect terror to evil-doers," be they beasts or human being. Tce finit which we ahow (fig. 123), was sent us by Commendatore Hanbary, from his rich garden at La Mortola on the Riviera. Its general appearance is shown in the figare the colour and aurface resemble those of an Apricot. The juice is intensely acid, bat if the frait is allowed to become a little over-ripe, the flavoar lowem mach of it acidity, and develops an aroma which is delicious. Few people like to eat the fruit raw, bat the jam, writes Profensor Macowar, is firat-rate. A proportion if Kei-Apple with Tomato would, he Hayp, make a good jam.

Cocos austraits (?) - We are sorry to be obliged to put a query to this name, av we have received fruits from three different sources, each with different names, The first to send it was our venerated corrempondent, M. Charle Nandin, of Antibes. Then Mr. Hanbury kindly furnithed us with some; and lastly, Prof. Perzig, of Ganos, obligingly sapplied us with opeci-


Fig. 123.-abraia caffra,
A, B, frnit of the natural size ; C, section; D, vertical, and E, transverse section of seed, magnifed.
ahrubby Compoaitæ. Plants of an alpine character are entirely wanting. Cardamine africana is the only native Crucifer, and Stellaria villowa, the only member of the Caryophyllaces. There are, however, two endemic apecie of Ranunculas, high up on the mountains. Agauria aalicifolia is an ericaceous ahrub or mall tree common to Bourbon, Mauriting, Madagascar, and the mountains of Tropical Africa. Altogether it is an exceedingly interesting flors, W. Botting Hemsley.

\section*{NEW FRUIT AT CHRISTMAS.}

Nor Oranges, nor Applea, nor Grapen, form the object of our present note, bat a few less widelyknown fruit, which have come under our notice lately, and which would be well worth the trouble of growing here under glast. The first we ahall mention is the Kei-Apple. This being a popular name, it will occasion no aurprise to hear that it is ensentially, if not superficially, an anlike an Apple as any two fruite could be. It is, in fact, the berry-like fruit of Aberia caffra, a Bixaceous plant, native of Natal and Caffraria, and which is recommended by Profemor Macowan ae a good hedge plant. It is a aturdy, stocky, hort-jointed grower, an evergreen, and with thorn which grow to 6 inches lovg and
menm, telling of at the aame time that the Palm had fruited annually for some yeare past. Cocon australif, if that be really ite namp, extendr, any Baron Von Mueller, from Brazil to Urugaay and the La Plata States. It it one of the hardient of all Palme, hardier even than the Date Palm, withotanding unprotected a cold at which Oranges and Lemona are injared or dentroyed. It remsined perfectly unipjared at Antiben at a temperature of \(15^{\circ}\) (Naudin).

Cocon anstralis is a pinnate-leaved specier, "with elegantly recurved leaver, an may be neen from the figure in Count Kerchove' useful work, Les Palmiers, and with atrong apines on the leaf-ntalks, at are manifest in some specimens before us. The fraits arp, as will be ween from our illuturation (fig. 124, p. 739), of the aize of Hezel-nuts, globular, golden-yellow, with a pulp of a delicion fiavour, comparable to that of a fine Pine-apple, and auitable for prewerves, or even for making wine. In the centre is a spherical hard atonp, whicb, when cut acros, reveale three cavitier, each with a ning'e reed. Now, in Cocos unually two of the three carpele are supprened, and one only goes on to matarity.

Other names wo have heard applied to this Palm are C. campentris, C. erionpatha of Drade, and C. leicapatha of Barl ora. We hope hortly
to be in a ponition to atate which is the correct name. In the meantime, the plant may be recommended for planting in our ab-tropical colonif: and under glane in this country. The fruit would be very acceptable on the table of the conroisuear. We append Profenar Perzig'a note on this Palm:-"I read in a recent namber of the Gardene - \(8^{\prime}\) Chronic'e a short commanication made by you upon the ripe frnit of Coco auntralis, sent from Antibes and La Mortola. I think it in not the trae Cocos australis, but that it in Cocos leiospatho, Barb. Rodrigo, a very hardy Palm, which grows in the open air perfectly in Genos, and throughout the whole Riviera, and which resisted a cold of \(2^{\circ}\) Celnian, without any harm in pite of a very atrong northern wind. I thick it is one of our mont hardy Palms. We have in our Botanic Garden, and in the pablic gardens of Genoe, numerous specimens of thia fine Cocor, and we have had flowers and ripe fruit of it these five years."

Lastly, we may mention the Cberimolia (Awona Cherimolia), one of the so-called Castard apples, specimens of which have been ent to as from Conatantinople, see 5 g .121 . We may refer for detaile of cultivation to the letter of our correspondent at p. 734. The plant occure from Ecuador to Pern, according to Von Mueller, is hardy in the mildes: coast-regions of Spain, and alno in Chile, whilat in Jamaica it is caltivated up to 5,000 feet.

\section*{THE CULTIVATION OF LIQUO-RICE-ROOT IN THE UNITED STATES.}

Is connequence of the increating use of Liquorice in America in the preparation of chewing-tobacco, the prospect of the cultivation of the plant in America has occupied the attention of landowner in that country for mome time past. Under the title of "The Caltivation of Liquorice root in the United States," Mr. Henry N. Rittenhoure contribated a valuable article on the subjuct to a recent number of the American Journal of Pharmacy. So .mach valuable information is contained in this paper, that we offer no apology for giving the gist of it for the benefit of our readers. The author pointa ont that Liquorice-root (Glycirrhiza glabra) is cultivated, in the true rense of that word, in 10 few places in the world, and to so amall an exteat an an article of commerce, as to be hardly worth mentioning, one or two places in England, and a like number in France and Germany, embrace all the localities where actual cultivation is carried on, and the area of land under cultivation varies from a few rode to an acre or two, 5 acren being an exceptionally large field.

The large mount of Liquorice imported into America-indeed, the needs of the world in this article are moatly supplied by plants which grow wild without any caltivation whatever. Italy and Spain supply a amall percentage of the total amount, probsbly 5 to 8 per cent.; while Southern Ru*nia, along the line of the Trans-Caucatian Railway, supplies two-thirde of the remainder, and Asia Minor and Syria the other third. The average total amount per annam of all kinde imported into the United Staten in about \(80,000,000\) pound , and the conaumption is atill increasing.

The Liquorice plant growe over an area extending from the hore of the Mediterranean on the autb, to Siberia on the north, and from the weatern ahorem of Earope, to the plains of Pervia and farther Indla, and from low levele to 1,500 feet above the tea, showing the wide area of land, and the variety of soil and climate over wich the plant will grow vigorounly. It is hardy, and no tenacione of li'o, that it in almont imponible to eradicate when once it has eatablished itmelf.

An found in commerce, Liquorice-root in dried and prened in baler. When freshly dug, it contains on an average 50 to 60 per cent. of moistare. Thin mat first be dried out, which is done by exponare to the air, much as hay is made, requiring frequent turnings and handling to prevent as much as possible, heating, fermenting, and darkening during the drying as well at the wetting by rain or snow, which
may be frequent before the root in dry enough to press for ahipment. When nearly dry, and danger from damage from the presence of moisture is passed, it is piled up in large stacks antil ready to be pressed. Around these atack: are dug ditches for draining the ground, and after a heavy shower or prolonged period of rain or snow, these ditches will fill with a black water having a very atrong tante, and containing a high percentage of the extractive matter of the root; this, of cource, detract from it name, and is itself waste. When anfficiently dry it it preased in powerful hydraulic pressen worked by steam, oo as to redace the balk to a minimum and to bave freight. The balen are bound with iron straps, and nometimes covered with canvas.
Some of the roote an imported are so thick that they indicate a probable growth of, perhaps, twenty years. These very thick pieces are, however, usually rejected as being worthless for making extract, three or four years being the age at which roots are dag up in the plantations about Pontefract, where the beat Liquorice-root in grown; after this age it becomes too woody and fibrous to be of much value in making extract.

Of course, a very emall proportion of the Liquoriceroot of commerce is grown in this country, and in consequence of the expenses attending the digging, drying, caring, pressing, baling, freight, insurance, and other items connected with the produce of Asia Minor and Russia, attention has been directed to the posuibility of growing the plant in the Uaited States for the parpose of aupplying its own demand. The connumption of the extract in America is now so large and important, eapecially in the manufactare of chewing tobacco, that it is stated that in case of a European war, a blockade of the Black Sea at the Dardanelley, or the Mediterranean at Gibraltar, the world's aupply would be effectually blocked, and the large American industry of tobacco-manufacturing thrown into coninvion, as Liquorice hat become a more or leas important ingredient in mont brande of chewing tobacco, and the present generation of chewera has become accustomed to its use. New brands omitting this ingredient might be unaaleable.

Considering the great variety of soil and climate in the United States, as well as the cheapness of land and labour, together with the large tracte of land available which are comparatively easy of accene for the tranaportation of the produce, it is eatimated that the cultivation of Liquorice would form a proftable industry in America, and would, in time, pay better than either Sagar-cane, Sugar-Beets, Rice, or Ootton, although the industry would not be solarge or important as any of these.
Liquorice extract can be mede an well or better from fresh root than from the dry, and ia mo made in the countrie that furniah the root, but the daty on it of 5 cents per pound largely restrictn its importation, while the root is free.
It is auggented that by introducing the cultivation of Liquorice into America, the extract may be made on aimilar lines as those now edopted in the manufacture of augar from cane and Beets, that in, to have large tracte of land devoted exclusively to the growth of the plant, with the factory for making the extract from the fresh root in or near the fields. The present sugar-fnctory, too, could easily be adapted to the manufacture of the Liquorice extract, the apparatus required being simply anitsble crushers or shredding machinery, the diffusion battery and vacuum pans for evaporating. Sagar factorien, too, could be atilived when not running on sugar, an the proper time for digging the root is from October to April, and if the root is not needed one year it can be left in the ground until the next, not only without deterioration, bat to ite increased value and woight. It is not well, however, to allow the root to exceed five years in growth; three or four-year root is the richeat in extractive matter, Fcost or drought do not injure the root when once wall eatabliahed, though young and tender planta are liable to injury.

After eelecting a euitable tract of land, the following if given at the beat mean of cultivation: "It ared only be ploughed once to farn down the
grass and weeds, barrowed, then laid out in farrown about 25 to 30 incbee apart, and the bude or catting net in the row: 6 or 8 inches apart, and covered by a plough throwing a farrow over the bude from each aide, or even cover them 3 or 4 inches with a hoe This is all. From time to time during the growing seavon a cultivator shoald be ran between the rowa to keep down weeds or grass. The tops at the end of the growing eason should be cat off; this could be done with a mowing machine. The second and third year the treatment would be the eame. In the fall of the third year the crop would be ready to harvest. The cost of the harvestigg would be the mont expensive part of the business." As the roots penetrate to a great depth, a good deal of labour ia required in digging them ap, bat it is auggented that this hand-work may be applanted by aome mechanical means of extracting them from the ground.
Mr. Rittenhouse points out that the idea of growing Liquorice in America ia not a naw one, and that in 1886 several acres were very accessfally growa near Sacramento, California, but that its growth way not peraevered in. He further asya:"My own experience in growing the plant in the United States has thus far been very moderate in results, owing to causes that might have been prevented, viz, inundations, unsuitable bads for planting, and possibly a want of care or interest or experience on the part of those in charge, to eay nothing of the effect of anusaally hot and dry weather on the young plants before they had become acclimatived. I have grown the plant in everal place in New Jeraey, Pennaylvania, Lovisiana, and Florida, and atill have some growing in the difforent localities, and believe it to be quite a feasible matter to introduce the industry on a large acte.
In connection wi h the cultivation of the Liquorice-plant, and the manufacture of Liquorice confectionery at Puatefract, the Chemist and Druggist atates that at a recent confectionera' dinner at the Holborn Reataurant, a town-coancillor of Pontefract, an representing the Liquorice manufacture, stated that the trade had conoiderably developed daring the past few yearn, and had it not been for this trade Pontefract would have been much lesp kaown, and in a much leas flourishing condition. Taousande of tons are manufactured annually, and diatributed at home and abroad. A large number of work-people are employed, and the money thas circulated contributes materially to the prosperity of the town. A distinct feature to which the trade owes its origin is the great depth of ail in the district, which makes it possible to grow Liquorice, this being the case in only one other part of the country, namely, Fusez.

\section*{MATTHEW ARNOLD AS A LOVER OF FLOWERS.}

Muce that in interesting has been written of late regarding the genius and characteriatics of this great poet, essagist, and critic, in connection with the recent publication of his lettere, which, how ever, do not give much insight into his life; but I have not dincovered in any of these reviewe a single reference to what I always deemed-enpecially after visiting him at his beautiful Sarrey renidence-his predomianting passiov, the love of gardening. There can be no queation, that Matthew Arnold was intensely fond of flowers. In one of the most valued of his many letters to myself, he saya of that exquisite vernal flower, which, rining as if from the grave of winter, seems ever to anticipateso early is its advent-the coming of apring: "I do not know that I have ever mentioned the Snowdrop in my veraee, but I have been planting it roand my whrabberies, and I admire it greatly." He had, however, in his classical poem entitled "Tristram and Iseult," aung of his heroine as a "Saowdrop by tho sen." I did not fail, subsequently, to remind him of this.

Is another of his letters, he anys of one of the mweetest and mons unobtrusive of flowers, with apecial reference to a poem I bad written upon the nabject, "Your poem on the Wood Sorrel hown
very considerable command of thought and exprension; but I could wish that you had aid more regarding ite apecial nelf, as I amparticularly fond of the flower."
Many incidental allunions to llower indigenons to Greece are diacoverable in his Merope, a work which, writen after the manner of Euripidep, has been highly eulogised by Algernon C. S wiaburne, a poet of whom Arnold has expressively said, with reference to the terribly diffase style of his contemporary, "Mr. S winburne writes a hanãred word where one would affice." The floral passages in this poem are chiefly found in the choraser, many of which are highly augentive of the senery of Greece. Bat Arnold's finest flowerinspirations occur in another and more-impressive poem, his deeply thoughtful and memorable "Thyrais," written to the memory of a beloved college friend, Arthur H. Clough. Therein, addrenning the too-early vanishing cuckoo, he sings:-

Too quick deapairer, wherefore wilt thou go? Soon will the high mideummer pomp come on; Soon will the Mask Carnations break and well;
Soun ahall we have gold-dusted Saapdragon,
Sweet William with his homely cottage mell, And Stock in fragrant blow;
Roses that down the alleye shine afar
And open, Janmine-muff \(\ni\) dattice:
And groups under the dreaming garden trees,
And the fall moon, and the white evening atar.
Matthew Arnold was, of course, an admirer of auch splendid flower as the Carnation, the Bagonia, the Lily, and the Rove; bat I have an idea that, like his great Teacher, the "High Prieat of Nature," be loved much more than these, the humbler beauties of the woods and fields. In "Thyrais" and the

S sholar Gipay," which may be regarded as hie most characteristic lyrical achievemente, the flowers which cling 10 fondly to his memory, as the alpine Linaria adheren to the wall, are the parple Fritillaries of the Oxfordshire meadow; the Orchises, the Daffodills, the poet's Narcissus; the Primrose gleaming by the hidden brooknide; and above all

Dark Blue-belle drenched with dew of nummer even.
The fair flowerete that gladden the vast aolitude of Nature, those that "die unseen, and wate their sweetness in the devert air," were dearent to his heart. Not of ambition were his songe begotten, whose happieat theme was love. He was himself a child of Natare, and he loved her meekest children best. And hence he could asy with his predecessor, William Wordaworth, to whom he was neareat of all his great contemporarien in nature and in life:-

Thank to that human heart by which we live,
Thanka to its tenderness, its joy, its feara;
To me the meaneat flower that blows can give,
Thoughts that do often lie too deep for tears." -David R. Williamson.

\section*{WINTER CUCUMBERS.}

Is order to maintain a regular aupply of Cucumbers daring the interval from the end of November to the end of March, it is neceasary that the cultivator should be provided with auitable accommodation in the way of a low-roofed light and air-tight house, supplied with top and bottom-heat, so that a minimum temperature of \(60^{\circ}\) to \(70^{\circ}\) can be maintained in all kinds of weather. To do this in very evere weather, it will be necensary and advinable to cover the glass at night with mats; indeed, this practice, on the ncore of economy, as well as a means of securing a more genial atmospheric temperature in the house, is to be commended during the wintor monthe.
The plante should receive careful attention in the matter of watering, an well as roist air, this last being regalated in accordance with the condition of the weather and the plants, bat a humid rather than an arid atmosphere should be maintained. Hence, daring mild weather, and conmequently alightly heated hot-water pipes, there will be no occaaion for aringing the planta, at doing so under the circumatances dencribed, would undoubtedly favour
the growth of mildew. On the other hand, should the nature of the weather be such as to necenitate severe firing to maintain the minimam temperature given above, a slight distribution of moisture in the house in the morning and afternoon, will be necesary to counteract the somewhat parching infuenca of the highly-heated piper, and to avoid infesting the plants with red-apider.
When water at the ronta is needed, it ahould have a temperature of about \(80^{\circ}\), and afforded in accordance with the requirements of each plant, bearing in mind that too much at one time cannot well make ap for a deficiency at another, hence the necemity of knowing when \({ }^{\text {Ito }}\) apply and when to withhold water at the roots, a knowledge only acquired by experience. If the Cacamber-hoasen are heated by their own boiler, the fires ahould be banked up by 830 or 9 o'clock on bright mornings, by which time sun will have rendered much artificial heat unnecessary. This should be done on bright molninga, even though the thermometer does not register the minimum degree of heat referred to above, for the obvious reanon that if the 'fires had been pushed on till a mid-day temperature'be attained, the sun, meanwhile, \({ }^{4}\) well as the fire-heat, would bave increased in force, thereby rendering almost immediate ventilation necesary, thas letting out the very thing (heat) upos which labour and fuel have been watted in gotting up in the house, and admitting cold.
The fires should be re-started in the afternoon, as soon as the ann goes off the house, so that by the time the nun-heat has fallen to \(65^{\circ}\), the heat from the hot-water pipes will anffice to maintain the proper degree of warmth during the night. In the event of severe front, a night temperature of \(60^{\circ}\) will be ample for the time being, but \(65^{\circ}\) ahould be the normal degree. To obtain and keep ap even this amount of warmth in a house of a moderate size, the supply of hot-water piping muat be liberal, and the fuel and atoking good. And with a view to accertain the degree of heat in the Cacumberbouse without letting in a volume of cold air whenever the door is opened forithat purpote, the thermometer should be placed in auch a position in the louse as to enable the degree of heat to be read by the gardener from without, with the asaiatance of his bull's-eye lantern at night. IThe above remarks are applicable to all forcing-hounes.
Should green or black aphis atteck the plante, famigate with one of Laff's fumigators a couple of eveninga in ancceanion when the weather is mild and the plants are damp. This fumigator has a shutdown lid, and two rowa of circular holes about half an inch in diameter immediately below it, for the emintion of the nicotine fumes. It is supported by three legz afficiently long to allow of the neceusary current of air for alow combution. Shoald mildew appear, duat the leaves affected with it with flowern-ot-sulphur when damp, and keep a drier atmonphere. The evaporating troughe on the flowpipen should be filled with liquid-manure water, maless mildew be present. Bat should red-spider entablish itself on the plantp, notwithatanding the application of the antidote, the piper should be painted with flowers-of-salphur when the plants and houre are dry in the evening, letting the temperature run up to abcut \(83^{\circ}\), so as to fill the hones with the aulpharous fume thrown off by the highly-heated pipes, airing the house more freely the two following dayp, or the plants may be aponged over (both vides of the individual leaves) with soft-soapy water. Crop the plant rather light than heavy, catting the fruit as soon as they have attained to proper \(\mathrm{s}^{\mathrm{i} z^{3}, \text { and }}\) atand them on their ends in aacers containing a little water in a fairly warm room ( \(55^{\circ}\) to \(60^{\circ}\) ). Keep all male blossoms picked off the plantr, as the necemary complement of fruit for a crop has been tecured, and encourage a free though consolidated growth in the plants. Lay a top-dressing of good fibrous loam to the thicknese of about 2 inches on
the roots the roots once between this date and February, the mould having been placed in the houte twents-four hours before being need, to become alightly warmed.
H. W. Ward.

Florist8' Flowers.

\section*{marguerite carnations.}

I read in the Gardeners' Chroniclo, at p. 645, "Marguerite Carnations were perfec", and it bas never fallen to my lot to see a finer show of bloom in all thades of colour." May I be allowed to remark apon two words uned in the above quotation -"perfec"," and "all"? Dealing with the laot one first, may I venture to ant if gellow and orange colours were represented? So far, I have not observed flowers of these tintr, nor, indeer, anything like so many beautifal shaden of colour as may be found in 2 bed of needlings of our own old-fashioned border Carnation, nor any flaker, bizarrer, or Picoteer. I fear the worda "all abades of colour" include too mact, as does the word "perfect," as applied to Marguerite Carnation. They are yet far from perfect-bat this does not detract from such merite as they posseas ; but thene merits are very mach obscared when the need is sown, so as to produce plants in bloom during the month of July or August, as at that reseon the finest Carnations are in fall beanty. In summer the blooma of the Marguerites are extremely fugaciour, and the flowera not being very doublc, pollen is plentifo', and fertilisation take place as acon as the blocms oper,


FIG. 121.-cocos AUSTRALIS. (SEE P. 737)
A, \(B\), fruit real size, orange-yellow; \(C\), vertical section, showing pulp, stone, and seed, with cavity in the centre;
D, E , stone. D, K, Btone.
causing them to fade the next day. Of course, if seed saving is the main olj \(\mathrm{c}^{s}\), that is attained. Tae beat time to mow Marguerite Carnation seed is, I consider, the latt week in March or the firat in Apri), and the plant if well managed will prodace a wealth of bloom in Ostober, November, and December. I have hundreds of the plants which have afforded cat blooms since early in the month of Oztober, and the plants look as if they would continue in bloom till March or April. I recommend them for the reason that their flowers are the very opposite of what the floriat terms perfect, being mostly fringed. To compare with thesp, there are seedlings raised at the same time of winter-flowering varietiep, viz, Uriah Pike (a good needgr), Mdlle. Carle, Miss Joliff, and others of that type of flower. It may be all a matter of tatip, but I prefer the seedling Tree Carnationr, and it is quite as easy to have these in flower if seed be sown at the ame time. My method of raising Carnations from seed is very nimple : the seed is nown in flower-pota or panf, which are plunged in bottom-heat of \(75^{\circ}\), and in less time than a week the seedlings appear. The seed pots or pans are then placed in a greenhouse near the glasp, or in a cold frame if the weather is not unfavourable. When large enough to handlp, the plante are pricked an inch apart into shallow boxer, and kept rather close in the cold frame until rooted into the fresh moald, and aboat the end of May, or early in the following montb, they may be
planted in large \(60^{\prime} r\), and into 32 's about the end of Jaly or early in August. The plants are kept ou'-of-doora all the time, and are freely ayringed and watered. It may be remarked that neither section will produce flowers at the same time, as quite half the namber of plants will not sho flower-bades so that the probabilities are this late lot will contion \(\rightarrow\) to flower until May and Jane. When in flower, the plants should be afforded a dry air, and a temperatare of about \(50^{\circ}\) at nigh', the ventilatore bein? opened daily for several hourt. Should aphide. apppar, fumigate the plants with tobacce. J. Douglas.
[A fairly rich vandy loam naita the Carnation at all eanons ; and when making its growth, an occasional pinch of salt atrewn on the soil will aid the \(m\) greatly. Never let the planta get drawn by any of the nasal canses, viz., crowding together with other plante. lack of light, or keeping them in the early atagea whilst under glase far from the roof of the pir, framer, or greenhoase. Afford good bat not excensive drainage ; pot firmly, bat never une a rammer, and always atand the poti on cosl-asher, or in some other way endeavour to keep worms out of the pots. Ed]

\section*{Forestry.}

\section*{PRICES OF BRITISH-GROWN TIMBER.}

Therr can be little doubt from carefully-compiled atatiatice obtained from almost every part of the country, that the value of home-grown timber hat rather decreased than otherwise during the pat twenty-five jears. This is enpecially the case with the Scotch and Spruce Firr, and markedly 00 with the Oat, the latter due in great meamare, no dout + , to the abatituting of iron for wood in ship and boat-building, and to other minor caasen which need not here be noted. Scotch Pine, owing in grect part to the amount of wind-fallen trees that has ever since the memorable "Tay-bridge gale" been placed on the market, har, perbapp, more than any other timber, decreased in valup, and plenty can now be obtained north of the Twoed at pricen varying from \(4 d\). to \(6 d\). per cabic foot. The large acreage of this Pine as well a: Sprace in the middle and northern Scottioh countier, acte too as a powerfal mfanm of leeping the price of the timber at the lowest ponsible ebr, aided of coarse by heavy railway or shipping ratee, and the amount that has been laid low by our cariously erratic atorms of the past few jears. Larch being mach in demand, and but little grown comparatively npeaking, is rather rising than falling off in price, and from 1s, to 1s. 4d. per foot is now frequently obtained for that of fair quality. The Larch diseasp, tor, has acted as a friend of the seller in sending ap the price of the timber, bat the comparative acarcity and many uses to which it is \(\mathrm{pa}^{+}\), are no doabt the greateat and chief causes why the timber either remain quiescent or rising in value. It is certainly to be regretted that more of the Larch in not planted, eapecially in Ireland, where the fell disesse in [at present] quite unknowr, and where thouands of acres of wate land, peculiarly snited for ite calture, could be profitably atilised in the growth of the tree. Good Oak timber now fetchen readily enough from \(1 \mathrm{~s}, 3 \mathrm{~d}\), to 2 s , per foot, and the demand is brisk; thougb, in years gone by, when the "wooden walle of old England" were maintainer, the price wat nearly three times what it is at present for the best trees. The caltivation of Oak, however, pays well enough at pretent, far better, indeed, than that of most other treen bar the Larcb, and it has never, and will not likely become a drag in the market. Sycamore, If large and good find. a ready market at very varying pricep, according to locality-from 2 s .6 d . down to 1 s 6 d , per foot. Is is a tree of rapid growth, wonderfally free from dieene, and by no means exacting as to the quality of soil in which it is planted. Even hedgerow and field specimens tarn out surprisingly good, and only a short time back we cut fully \(£ 200\) worth on a farm of 150 acree in extent. The largent tree contained 90 feet, and fetched \(28,6 d\). per foot.

Elm ir most difficalt timber to deal with, it varying oo in price, according to the part of the country where it is offered for sale. We sold a quantity, not apecially good, at fally 18 . per foot; bat in some paits of Kent and Sarrey, id. is nearer the melling price, and it is e ven difficalt to get rid of at that amount. Bat Ash, above almost every other tree, is the one for the apeculative planter to go in for in quantity, the ever-increasing demand clearly showing that we have not one tithe of the quantity that is annualiy required. The best fetchen quickly fally \(2^{2}\) per foot, and there is not a atock unsold from ons end of the land to the other, unless indeed, ander very pecaliar circamatancen.

We would atrongly urge on intending plantera the necessity for growing the Ash in quantity, and any dampiah loam aits it admirably.

Beech, if grown on chalky or gravelly soils, finds a ready market at from 10d. to 18. per foot, that off the Chilcern hilla and chalky reefe of Herta being quickly picked up, even at a trite over 13d, per foot.
"Maiden" Willow cannot be got for love or money, and the demand for cricket-bate will be are to increase with the Gruce memorial.

Birch, Alder, Poplar, and woode of a like kind wary a good deal in value, and around some of the Welah town for clog-tole making from \(8 d\), to 10 d . is seldom refused.
Mach of the home-grown timber is of very inferior quality, which fact tend directly to keep down pricen; bat, indeed, it can hardly be expected that the output of woode and plantations that are cultivated mainly for game rearing, whelter, and ornament can be either anfficiently clean or atraight to fetch anything like a remunerative price. \(A, D\). Webster.

\section*{Book Notice.}

\section*{Synoptical flora of North America.}

Osme great object of the late Asi Gray was the accomplishment of a complete Fiora of the Uaited Siates. Many years ago, in conjunction with Dr. Torrey, he pabliohed the beginning of such a lora. Five or aix editions of a Manual flora of the northern States also pased through the preas. In 1878 appeared a volume of the Synoptical Flora of North America; in 1884 another similar volume. The pablication of these instalments showed clearly that the tank was beyond the powers of one man, even thoagh that man was Ana Gray. The States themaelves multiplied, collectors became increasingly numerous, and their gatherings proportionately extensive and varied. And so it came to pass that the great and good man who is venerated in this country as be wan at home, died when only a fragment of his projected work was done. Now, three years after his death, comes another portion of the work (to be had of Wetley \& Son, 28, Eisex Street, Strand). It has been compiled from the notes left by Dr. Gray, and by his anccesaor, Dr. Sereno Watmon, aleo decessed, and their work has been continued by the present carator of the Gray Herbariam, Dr. Robinmon. Great featares of Dr. Gray were his excellont jadgment, the perfect clearness, and admirable imethod of hir deecriptive work. It redounde highly to the credit of Dr. Robinson that the present inatalment, which begina with the Rannnealaceas and ends with the Frankeniacex, presents the same admirable Incidity, tersenesf, and excellence of arrangement that characteriaed the portions produced by \(\mathrm{D}_{5}\). Gray. It in a source of antiofaction aloo to find that in mattere of nomenclature \(\mathrm{D}: \mathrm{R}\), bioson has followed the plan till lately adopted by almost all descriptive botaniats, and bas not been led away by the specious arguments of some of his countrymen, who regard nomenclature not merely at a convenient means to an end, but as in itself an end. With the Genera Plantarum the Index Kevensis, and now, the Symoptical Flora, we can but think that the mijurity of ayatematists will, in the intereste of selesca, continue to employ the most convenipnt zad the moat widely-accepted syatem confanion and unelent eynonymy.

\section*{WEST INDIES.}
partiality of cats to the avocado PEAR.
Ir may be interesting to place on record my experience in Grenada, so far as concerns the fondness cats have for the frait of the Avocado Pear (Persea gratimima). I was puzzled one day to know what to give two kittens which had jast previously been presented to me, when it was saggested by one of my men that a piece of Pear would be reliohed by them. This auggestion I accepted wilh snase amount of reservation, but it was not long before I sa maself that the Avocado Pear was eaten up by them as a dainty moreel. Since this occation, I have seen the ame two kitena, when milk and Pear have been placed before them at the wame time, to leave the former and eat the Pear voraciously. This incident appeared to me singular, and worthy of notice in your columns, as it had kitherto been my impression that cats were rather antegonistic to vegetarianism. It may not be generally known at home, that Avocado Pears are always eaten in a raw atate with bread-andbutter, or with other thinga according to taste W. E. Broadway, Botanic Garden, Grenada, B.W.I.

\section*{The Week's Work.}

\section*{THE ORCHID HOUREB.}

By W. H. White, Orehid Grower, Burford, Dorking.
DENDROBIUMB.-For flowering daring the late winter and early apring month, few Ochids are more aseful or appreciated than Dendrobiumu. At the present time, many apecies and varieties are showing their flower-buds, and some of them, viz, D. Wardianam, D. crastinode, D. micans \(\times\) D. Wardiano japonicum, and a few others are starting into growth, but that notwithatanding, the cultivator mast not be tempted to afford them mach water at the root, or antjuct them to a high temperatare, or the growths will grow too rapidly. and prevent the flower-bade coming to perfection. These premature growth generally remain almo stationary for a long time if the plants are kept moderately dry, cool, and in a well-ventilated house. When the flower-bude have reached fall development, take the plante, after gradually inuring them to the cbange, to a warmer house. D nobile, D. tortile, D. aureum, D. moniliforme, D. signatum, and the garden croses, \(D\) Casoiope X, D. Aopasia \(\times\), D. Barfordiense \(X, D\) Ainaworthii \(X, D\). Dominianum \(\times, \mathrm{D}\) splendidionmam \(\times, \mathrm{D}\). endocharis \(\times\) D. Schntiderisnum \(\times\) D. Lsechianam \(\times, D\) Cybele \(x, D\) Carysodiacue \(x\), \(D\). melanodiscas \(x\), D. Jano \(x\), \&e., not having the propensity to tart prematurely into growth when their fower-buda ahow, may be brought from the conl resting-house into a house somewhat warmer. The Catcleya or intermediate-house forms a saitable place for them till the flower-buds are well advanced, after which remove them to the lighteat available position in the East Indian-houne. From the present time, and till the flowers open, water should be very sparingly afforded at long intervals of time in anfficipnt quantity to keep the paendo-bulbs plump, and induce the slow advance of the buds. The species D crepidatum, D. cretaceum. D. primolinom, D. Boxalli, D. tranaparens. D. it ituiforum, D. Pıerardi, \&e., atill at reat, whould be \(k \in p t\) at reat till the flowerbuds show, when more warmth should be afforded them. D. chryanthum is a free-flowering handsome appecies, which as a basket-plant is much admirtd for its golden-yellow blossoms. As it is jast starting into growth, the rooting materis', if it has become in the least degreedecayed, atould ba picked out and replaced with fresh. It aucceede if bugg up near the roof in the Eut Indian-house; and tull the young roots have a firm hold of the compost, water ahould be very aparingly afforded, or the new growth may damp off. When the plant is in active growth, thoroughly water the comprat when it hat bucome dry. K+ep the plants of D. Johosoniz, D. speciossimam, D. taurinum, \(D\). nadalatom, \(D\) velutinum, \(D\). Amboinense, D. Hattoni, and others that are growing in the warmest honee, and water them liberally till the growth is quite matare.

CATTLEYAB.-Among those which flower late in the apriag and earily ammer, C. labiate Warneri is one of the handsomest, and any plants now starting to grow should b huog no, or flivated on inverted pots so at to be brought close to the roof at the warmer end of the Cattleya-honse, affording them water in anflicient quantity to fairly moisten the compost till growth is fully completed. Pisnts of C. Warneri newiy imported, on being received will need to be clesned, dead roots trimmed off, and then placed in pote which will jast hold the roots and no more, nearly filling up the pota with crocks, making the planta steady by tying two or three of the pseudo bulbe to sticks. Do not excite the piante into growth quickly, but place them in the intermediate houne, and surround them with a moist air, and moisten the crock two or three times a week. When growth has fairly begun, nome lumpe of peat and spbagnam-moss may be packed firmly around them in the usual manner, and let them be placed with the established specimens in the Cattlega-hoase, where, with the proper kind of treatment, they will soon become entablished, and sometimes make atronger growth in one searon than plants which have been in the collection for years.

\section*{THR KITCHEN GARDEN}

\section*{By Jobs Lambert Gardener, Powis Caatle, Welshpoob.}
horseradibh.--Preparations for planting a bed of Horeeradish may now be made, and if the demand is large and regular, a bed hould be planted every year. Horweradish is one of the most neglected of garden crops, being anaally left to take care of itsel! in ome out-of-the-way corser of the kitchen garden. A piece of ground should be welected sufficient to anpply the demand, and trenched \(2 \frac{1}{2}\) to 3 feet deep, if it will allow of this being done; a thick layer of rich manare being laid at tbe bottom of the trenches, and plenty of manure worked into the apper two spits, leaf-mould being freely used if the land be of a heavy nature. \(I_{5}\) is important that the bottom apit should be the richest, therefore the original top apit should always be placed at the bottom. The top upit may be left rougb. Crowns or nice young thongs about 3 or 4 inches make the best setp, and these shou'd be prepared when dug up from the bed in use. Fall instructions were given last apring on the best method of planting Horseradish.

Carrots and turnips.-Where early cropn of these roots are required, pits should be filled with fermenting materials similar to those suitable for Potato. The soil for the Carrote, however, should receive more attention than that used for the Potato, or the roots may be disfigured by invecta. A ligbt, sandy soll is to be preferred, mized with soor, lime, and charred parth. It ahould be pased through a \(\frac{1}{2}\)-inch screen or aieve to take out clods and atones. The aurface of the bed should come within 12 inches of the frame or pit-light when prested down and finithed off ready for the seed being nown. When it bas beccme warmed throughiout, sow the seeds in rows 9 inches apart. Good varieties for frame work are Parisiad. Frecch, and Satton's Inimitable Furcine, and Early Nanten Carroz. The Extra Early Milan Tarnip is a good vailiety for frame use, but it is no earlier than the old flat Datch.
radishes.-A pit or some framen with a aufficient number of lights should be prepared, as for Carrote, patting from 3 to 4 inches of soil on the hotbed materials. A pit of three lighta will keep up a succeasion of Radiohes for a long time, by anwing one third of the area at a time, and not letting the topa get crowded. Toe beat manner of nowing Radishes is to take three or four seeds between the fort finger and tbumb and prese them into the soil about a quaster of an inch, making the bed level with a plece of board or back of the rake, and patting it evenly all over with a bright apade. Ioproved French Breakfast is one of the bent for early work.

PARBLEY.-The mildnens of the westher has cansed Parsley to grow coasiderably of late, and it will bo very necessary to cover it ap on the approach of sharp frost-; also to pall off all of the outside 1 -aves of the plonte, a proceeding which will have the eff ct \(0^{\prime}\) giving more light to the young growth. Hoops and wate, or old lighta reating on bra-de, and other contrivancer, may be uned for protecting the plants. Even a mulching of fresh gathered-up Oak leavep, worked in among the foliage carefalig, asosate in sereening the plants from frost, besides sapporting the leaves ander fails of anow,
which would otherwise bresk the leaf-atalks down, and thus cause rotting. The Oak leaves can be kept in place by putting a small quantity of litter along the outside of the beds. The Paraley which is planted in pits and frames should alway be left to form a supply in hard weather.

\section*{FRUITS UNDER GLABS}
by Riceard Parker. Gardener, Goodwood, Chichestet
POT VINE8. - Vines that were started in a steady bottom-heat lat month should now be showing signa of growth, and a gradual increase of atmospieric heat must be afforded as this advinces. Train the canes to the trellis in their permanent position si moon as the bad have started to grow evenly. The young hoots grow very quickly, sud there is a danger of breaking them off if the operation be delayed. Small weakly growths which form at the base of the main shoots may be rabbed off at once. The main bads will also require to be reduced in number when growth is ufficiently advanced that those which are likely to produce the best bunchea may be selpeted. The bottr \(m\) heat should range from \(70^{\circ}\) to \(75^{\circ}\), and for this parpose a good heap of stable-litter and leaves mast be kppt in readiness to be packed round the pots as required. As the roots become additionally active each day, more frequent applications of water will ben+casary. Weak ॥quid-manure may be afforded, but it nhould always be used at a temperature several degres bigher than that of the house Continue to syringe the can at 9 Am and 2 Pm . on bright days; but if the weathur be dall and frosty, it is better to slikhtly dew them over o:ly once, at about 11 A.M Nu ventilation may be afforded, unless external condition are very favourable; and the heat in the hot-water pipes should be regulated carefully, to that the day tempara*ure may be about \(65^{\circ}\), Which may be increased to \(70^{\circ}\) as the san atriken the house. D) not over-heat the pipes at night, ge this practice tende th greatly weaken the growih; a temperature of \(60^{\circ}\) will quite suffice for the present.

Flas in Pors.-The earliest trees may now be housed, and growch hastened by planging the pots in a mild hot-bat, and farther treated
similarly to pot Viner. Springa the trees alighty once or twice a day, and do not afford a ereat deal of water at the roote. For the firat fortnight, the day cmperature hould not rise greatly above \(55^{\circ}\), bat loer that time and as growin proceedp, gradually acrease it.
PEACHE8. - Trees ia pots now coming into llower must be kept as near the glase as posaible. The trees may be syringed antil the first flower opent, but afterwards a drier atmosphere should be maintained. Sadden changes of temperature matt bo carefullv avoided, and a day temperature given of \(62^{\circ}\) to \(65^{\circ}\) daring mild wesiher, when air can be simitted with astery, and a \(f_{s i l}\) of \(2^{\circ}\) or \(3^{\circ}\) daring revere weathor. Tae night temperature may be lept about \(60^{\circ}\)

Fruit trees in pots which are till planged out-of-doors mat be carefally protected from birds, as these have already commenced on the forwardest buda of Caerries and Piames. Duat the trees over When wet with lime and soot, or protect the treen with Strawberry-nets.

\section*{TER YLOWRR GARDEN.}

By DAmey Wadns. Gardener, Birdsall Gardens, York.
PELARGONIUMB which are being wintered in pite and frames to which no fire-heat can be applied, may be atored away in pote or boxer, or even laid-in by the heple, and will require to be kept an dry as possible. Sorict attention muat be given to covering them up with dry materials in cave of severe and laid on hay or Forn way be pat next the glase and laid on thickly, then this bould be covered with farpanalin and well secared to keep all dry. Old plants of acarce varintip that bave been laid-in for vinery hould be potted off, and placed in an early inery or other wara bouse where they will com'rence to grow, and produce boots fit for cattinge. live atore cathngs in boxes or pote plenty of air. If will require jhelves in houses that can be heated, they and frequire jut sofficient water to keep the m plump "quires. Variogated and Iog-leaved Pelargonimas aquire less water curing the winter than \(z\) nal Siarburough Speet-scented varietin, enpecially Lady Mare, dry ar. require very carelul watering, and a
in if if they are pat on a slate or iron atagiop, it ahould bo covered with rough sand, that the water may get
easily away. Give abundance of air and a little fire-beat at times in mild weather. If green-fly appear, fumigate the plants at once.

FUCHSIAB. When cuttinga are required of eelect varities for bedding parposes, old plants which were lifted from flower beds in the autumn and atored away in sheds should be potted in good rich soil, well wateran, and placed in a warm house, anch as an early Prach-house or vinery. Thin out the weak hoote, and prane back tho remaining to three or four fyes. These will quickly give a good supply of cutting", which will atrike freely under bell-glasses in a gentle bottcm heat.

\section*{miscellaneous bedding plants.-Verbena,} Heliotroper, Gizaniap, Agathes co'eatir, Lobeliar, Nierembergia, and other bedding plante of the same clane, ry quire a cool airy house and careful watering. T-nder plants such as Coleap, Iresiner, and Alternantheras mast be kept in a warnoer temperature. If the atock rfquirea increanirg to a great extent, propagating may be commenced at once. Cattinga will atrike very freely in a warm, close hoase at this aeason. Mignonette and other annaals that are being wintered in pits and frames hould have abundance of air given them during fine weather, and they must not be over-watered, Calceclarias in frames require abardance of air daring mild weather, and it will be well to cover them up against sharp fronte. If it is thought necesarr, cutting may be put in at once, and may be taken from the tops of those that are growing freely. Tapy will atrike readily in a close and thaded frame, Sweet \(\mathrm{P}+\mathrm{a}\) zowings should now be made in 6 inch pote, to be planted ont at the end of Janaser should weather permit. A sowing was mada here in 12 -inch pot in October; they have been kept in a cool house, and are looking atrong and well. Dabliap, Cannup, Begoniap, Gladioli, and other flower-root which are stored away in shed will need to be pritucid from fros', and they must not be allowed to become over-damp; sofar, this has been a season of andden changer, from heat to cold, but on the whole favoarable for outdoor garden operatione. Every advantage should be takan of fine days to pash on with the planting and re-arranging of all kindr, bearing in mind the weather we had to contend agninat duriag the emrly moathe of the present year.

\section*{PLANTS UNDER GLAS8.}

By W. H. Smite, Gardener, West Dean Park, Chichenter.
the gardenia - Plante required to flower in quantity early in the new year ahould bave the old material in which they are planged removed and renovated with thia jear' Oak or Beech leaver. A top-dresaing of rich loamy aill, ard a slight dressing of an approved artificial manure hould be applied. Tue honse or pit in which the plant will atand should be made clean, also the plants, paying great attention to the deatruction of maly bug and brown scalp, two very noxions pets infeating Gardenias. The best mpans to use againet them is petroleum, in the propostion of one wine-glass'al to three gallons of a oapads, at a temperature of \(95^{\circ}\). If the Gardenisa are syringed once a month with this mixture it will clean the leaves and free the plants from mealy-bug and brown acale. Of course, during the flowering sesson this could not be dove. A gocd method of having Gardenia blooms at every eseon is to plant them out in a pit or house where there are ample mean of beating, and the plants ahould not be praved, except just to thin the ehoots when crowded. At this season they woald require plenty of heat, abundance of water at the roots, and syringing twice daily.

WINTER FLOWERING CARNATIONS.-Cattinge to sapply plant to flower early next winter may now be struck in the stove or propagating-pit. Take strong, ahort shoots, and insert seven or eight in a 3 -inch flower-pot, in a compost of asdy loam and peat. Much care must be exercised while in process of atriking, to prevent the damping-cff of the cuttings; but this can uacally be averted by wiping the glase dry on the handlights or cooche night and morning. A few new varipips worth eultivating are Madnme E. Bergmar, Mrr. Finet, La Villettp, Laday, and Primrose Day; the latter has a dwarf habit, respmbling Winter Cheer, and jellow flowern. Yellow-flowered varietien of winter-flowering Carnation are acarce, and this is a very acceptable movelty.
bouvardas, se fast as the plante go ont of flower, abould be placed in a cooler house, and be
afforded lens water at the root. A warm frame would ait them, as they could be enabled to obtain abandant light and air to mature their growth before water is entirely withheld.

CYCLAMENB.-Forward plant now flowering freely should beafforded weak manure-water, anch as Clay'p, making an occaoional change with a weak mixture of soot in rain-water. When the plants are at their beat, the air of the house mav be kept a little drier and cooler, say \(53^{\circ}\) by day, to \(50^{\circ}\) by night, with artiscial heat, and a trifing amount of top and bottom ventilation at all timep, excepting in very evere weather. The fumigation of the plants is desirable once a month as a preventive of attack of green or black aphis ańd thripe. Some needlivga may now be ready for potting-off into thambe. As a potting-mould, use finely-sifted loam, peat, leafmould, and and; pot them with moderate fi!mness: place on a ahelf near the roof, and lightly asringe them twice daily. A'ter poting, afford a light watering to settle the ail about the roots. Examire the plant for aphis, and use a soft brush to dialodga them when foond. Those seedlings which are too small to be potted-off, may be pricked-off into other pans to grow atronger; they will form a saccension to the earlier-potted oner. I naually find that the last seede of Cyclamen to germinate bring the beat fowers.

\section*{THE HARDY FRUIT GARDTN}

By W. Pope. Gardener, Highelere Castls, Newbury.
the treatment of old fruit trees.-If any aged fruit treea are fit to be retained for nome years longer, it will be well that something should be done to improve the fruit and the quantity of it. With this intent, top-dressinge of well-decayed vegetable refusp, which bas been turned once or twice, and quicslime added to it at auch timer, wood-asher, and especially charred garden rabbish. These top-drasings abould be applemented by copious applications of liquid-mavare from the farmyard or atable, which, now that the trees are at reat, may be used without dilation. The good effecte of these dressings will be increased vigour, clean growth, and improvement in the quality of the frait. In the care of rank-growing barren trefs. exceptions must of courae be made, and instead of affording nutriment, root-pruning ahould be resorted to, whict is best done early in the antumn, bat it may be done at any time daring the winter in open weather, R not-praning mat be cautionsly carried out, and halfway round and under a tree will be sufficient for one year. Begin by opening a trench 4 feet from the stem, and aever the strong tap and main deacending rootr, bat preserving all that are near to the aurface. A few wheelbarrow loads of fresh materials will be of great use, placed round the roots in encouraging the growth of omall feeding-roots. It in often the cane that partial root-pruning has the fffect of checking rampant growth and indacing fraitfulsess, bat if it have not the desired effect the remaining portion should be root-pruned the next season. Tree of inferior kinde, if healthy, thould be headed back preparatory to grasting them with scions of better varitties, for which purpose the latter may be taken now and laid in nader a north wall. or in some damp cool place. Old Peach and Nectarine treen with cankered branches, of which are unhealthy, will be greatly improved by being cut back to within a foot or so of the stem, carelully hortening the roote, and layivg them in maiden losm. The asual reanlt of thi lind of treatment is to refurnish the trees with abundance of healthy, fruitul wood, often superior to that of newly-planted young trees. Od Pear and Plum trees on walls crowded with clutera of long apurs, and bearing, perhape, only \({ }^{(1)}\) few, worthless fraits, should have the spare freely thinned here and there all over the trees, and about one-third be cut back to within an inch or so of the branches. A strong ahoot or two will generally apring from the base of each, which, with proper attention paid to atopping once or twice during growib, will develod into new frait-spars lying close to the branches. In three or four years, by that annually taking out ecme of the remaining apars, the full benefit of the wall as a shelter for the tlossom will bo secared, with a correaponding improvement in the fruit in regard to quantity and quality.

The Glabtonbuay Thorn is in full flower and leaf in the Botanic Garden of Trinity College, Dablin.

\section*{EDITORIAL NOTICES.}

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Local News.-Correspondents will greally oblige by sending to the Editor early intelligence of local events likely to be of interest to our readers, or of any matters wohich it is desirable to bring under the notice of horticulturists.
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appointments for the ensuing week.

\section*{SALE.}

DEC. 23 \{ Plants, Roses, Hardy Bulbe \&c at Protheroe Morris' Booms.
vORRECTED AVERAGE TEMPERATURE FOR TGE ENSUing Week, deduced from the objervations OF FORTY-THREE YEARS, AT CHISWICK. \(-384^{\circ}\)

Christmastide. As our tastes and interests are from whioh we individually view the Christmas season. With all its inconveniences, the season is by no means an enemy to commeroe. Daring its observance trade is hopelessly disorganised, but the extraordinary impetus every branch experiences in preparation for the festivities more than compensate for this. At Christmas we all seem to gain, and all to lose. If we receive more than usual, we also spend more, and the manifestation of spending power is greater than ocours at any other part of the year. So far, therefore, as we can see, the observance of this festival is not likely to be diminished, though naturally the methods by which it is celebrated will alter slightly with every decade. The noisy, riotous scenes and indulgences that were once characteristic of the season, do not now obtain in the same degree, and we have reason to be thankful that the case is so, and that the money once expended in such a manner is now free to purchase more rational comforts, and time oan be given to the pursuit of more reasonable methods of enjoyment.

Looking at Christmas from our own partioular standpoint, we find that the resouroes of hortioulture are more and more freely drawn upon. Every class of the publio spends more of its money upon plants and flowers. The ancient custom of associating the Misleto, the Holly, and other berried plants with Christmas, for many long years has been encouraged by the abseuce of any other natural material wherewith to decorate our homes or our charohes. Of evergreens even, there was not the variety at the commencement of the century that we have now, owing to the introduction to this cuantry of species and varieties of Conifers, peouliarly suitable for Christmas trees, \&e. As long as the seaton has any charm for us, we are not likely to despise the Misleto, Holly, and Ivy, which for centuries have been associated with its observance. Indeed, kerried plants of all descriptions appeal to us in December with quite irreaistible fascination. We continue to weloome these, but our sympathies are not the less able to embrace the abundance of flowers that modern hortioalture has made possible to us. The former are now largely supplemented in our decorations by a variety of planta and flowers that
we, by reason of our hot-honses, are enabled to enjoy at a time when formerly they were not procurable. When we think of what has been accomplished, of the advantages we possess that our forefathers knew nothing of, though we see little to boast of, there is plenty to interest-and even to astonish us !

Half a century ago the amount of "glass" in our gardens was small, only the largest of them possessed facilities for the growth and production of exotic plants and flowers, and the foroing of these in December was but little practised, and as little understood. The str des made since then have been rapid and long, the increased facilities for the production of flowers has encouraged the desire for them, and the demand and supply have both inoreased at a prodigious rate. It is little exaggeration to say that now we cover half our gardens with glass, and we gather some of the choioest of our flowers at Christmastide.

\section*{Christmas Plants.}

Of flowering plante now obtair, in December, in succession to Chrysanthemum", four of the beat-known in the market, io., Heaths, Solanume, Primulay, and Cyclamens. Tae Heathe, once grown by nursergmen, auch as Messrs. Hugh Low \& Co., of Clapton, and Mesars. Catbanh \& Sons, Highgate, for distribation to gardeners only, have, for a number of years past, been taken in hand by the market growers, and they have treated many of them with remarkable nuccesp, placing them apon the market at popular prices and in quantity, imilar to the fancy Pelargoniums. None of the Heaths, however, can be asid to be exactly Christmas plants; Erica gracilis (the red Heatb) is now almost past, being frequently in bloom in Ostober; \(\mathbf{E}\) hyemalis and E h. alba may be seen in the market, but not in great quantity, nor have we seen many p'ants of it in lower when viaiting some of the market narverie daring the past week. What are now to be bought have been specially kept back for this week'sale, E. Wilmoreana, a larger and more ahowy plant than E. hyemalis, cannot be had soon enougb, but comen in nicely during the earlier months of the year.

Mr. Sweet, of Finchley, is known ay one of the bett Heath growers for market, and his plants are picture of succeasful culture, compact, shapely, and covered with abandance of bloom. Mearr. J. \& J. Hayes, Edmonton, Mr. J. Fraaer, Mesars. Gregory \& Evan, Sidcap, Mr. Ladde, Swanley, Mr. E. R chford, and others, have grown them largely alao. We recently noticed at Mesarr. Hagh Low \& Co.'s nuraery a quantity of E. melanthera, which had been forced into flower, the bloom being white, inatead of the light purple they anaally are when produced in apring. It is not of much service, however, for such early forcing, and the plant is lene popalar in apring than it used to bp, though Mr. Sweet hat been selling plante of E. melanthera with better-coloured flowern. Mont of the varieties are pretty and effective plants to put into vases, and obtained through the market they are very cheap, but they are little underatood by many who bay them, and they may be frequently seen in rentaurants, hotels, and house-windows, with the pointe of their shoote hanging hopelensly down, languishing for water.

Solanum capsicastrum is essentially a winter plant, and many-almost all-market-growern cultivate them but we have never seen any so fine as those grown by Mearr. J. \& J. Hayer, Edmonton. Their plante are remarkable for the small sizs of the foliage, and the extra large nize of the berrien. They grow them in thousands, and were amongat the firnt to caltivate a large nuaber annually from cuttinge. Mr. E. Rochford, Cheshant, raines about 10000 plants annually. Solaumes ell more readily than other plante during the prement week and part of next; but, aE eeveral growers have remarked to the writer, "Come Boxing-day, and buyern won'c look at them."
Primulat are pretty and usefal for warm rooms, bat are too delicate to be placed in dranghts or cold
placen at this aemon. They have long been market planta; bat we are inclined to think the trade in them is less than formerly. Mears. Williama and others are elling very well-growa and pretty planta in several colours.

Cyclamen.-A more popalar and a hardier plant is the Cyclamen, especially an the foliage is less liable to injary. There are more annually forced into bloom daring the present month than was ever the casp, and unually the sale is eaty. At Mr. Whiteley'p, Hillingdor, there was recently a wonderfully large dieplay of pare white ones; and the St. George's Nurnery C)., Hanwell, grow many thousand for market. We noticed some of a vary good atrain at Mensrs. Low'r, bat of course these are not put apon the market, being all sold to private customere. By the way, if we do not have an opportunity of seoing Gorman Cgclamens in the meantime, there will be plenty in Eagland next year, for we have reason to know that aince the letter from Berlin on the abject appeared in thene pager, one firm at least hay possessed itself of a good quantity of seed from first-rate Garman collections. At to whether the bloome will be so much better than auch a atrain as Mesars. Sutton's or Mennry. Williams', our German friend will excuse us being a little aceptical.
Besides these plante, there are Richardiay, Poinsettia red and whitp, white Marguerite about 14 inchen high, in 5 inch pote, and literally covered with blossomr, and Mignonsttp. In addition, there is the anaal large and varied aupply of well-grown foliage plantr, Palm", Fernp, Diacænay, Asparagas, Smilax (Myraiphyllam), \&c.
The new race of Cannas will make a valuable and diatinct addition to the flowering planta that may be had in bloom daring the present montb. Mearr. H. Cannell \& S one ancceed in obtaining flowers throughout the year, and are able to exhibit them in fair quantity at the present date. Of course, they are unanitable for market work, but a group of them In flower at this season in our conservatories would be the mont lovaly and atriking addition to zonal Pelargoniume and the like, than we have had for yeare.

\section*{Cut Flowers.}

Of cut flower there is much greater variety, than one cees in the planta; indeed, we need not lack these, for the market is well supplied. For the purpose of preparing this note, we attended one of the early morning wholesale markets at Covent Garder, and the impression the visit gave it that the last days in the year are now certainly not flowarless ones. \(\mathrm{Ye}^{*}\), in some instances, at least, the aupply in this particular year is not exceptional. For instance, a viait to the large entablishment of Mr. George May's, at Upper Teddingtod, showed that he hat practically no Eucharis blooms to cat. Hare is the largest and beat collection of Eacharia planta we have ever seen, and during the ame week late year, Mr. May was marketing acore of dozen of blooms each day. He will have plenty later though, and they promise to be of excellent quality. Abundance of Bonvardia blooms may be aeen in the market. The plants are grown maoh more largely for the apply of cut bloom than to eell as plants; and R ses alco are plentiful. Mr. May hat a good aupply of the latter. That a variety of cut bloom is at hand is proved by the following list, moat of which are in the market in considerable quantity -Chrysanthemums of late sorts, wuch as L. Canning, Princens Blanche, Princent Vichoris, and W. H. Lincoln, a variety which can be had early or late; Lilium lancifolium, L. longifloram, and L. I. Harrisi ; Roses, Carnations, Eacharis, Cyclamens, Lapagerias, double Primulaz, Azaleas, enpecially the capital white one, Deuteche Perle; Richardiar, Camellias, Taberones, Gardeniar, Pancratiams, Freenias, Roman Hyacinths. Talipm, Lilies of the Valley, yollow and white Narcisury, and Violets. The Narclesu is imported from France, so aleo are numbern of Violets, the former may be forced into flower here by thie date, but they come very much less kindly. In addition to these, a good aupply of Rose bude,

Staphylea colchica, white-flowered Lilac, and yellow Marguerites, may be had from the foreign flower atalla, and a very amall quantity of Acacia sprays. There were some excellent Christmas Rosen (Helleborus niger) at last Tuesday's early market, bat lean in quantity than one would expect.
A few days since we arw at Mr. Iceton'e nurbery at Patney Park Lane, an aatoniahing quantity of Lily of the Valley, ready for cutting. This bloom is the product of new crowns or bud, not retarded onen, and they were very fine, many of the apikes having fifteen good-sized belle upon them. Do what the grower will, however, it is impossible to get much foliage from theme early-forced bada, and relatively to this, a batch of retarded bude are useful. The flowers are lean freah-looking, and of weaker quality, but there is plenty of foliage, and this has to be used aparingly when marketing the finer hloom: from the new bude. The retarding
varietien were Chrywolora, Yellow Prince, White Pottebakker, and red Dac Van Thol.
From the above will be seen there is ample material for the making of bouquete, batton-holep, and the furnishing of ball-rooms. We have not mentioned Orchidp, because there are few old in the wholesale market, and they are always acarce at Christmas; Cypripedium innigne, thougb, may be had in tome quantity.

The difference in quantity of the flowers and plants now available at this aeason, compared witb, say, thirty years age, is not greater than the difference in the prices they realise ; some of them sell now for less than one-third of what was given for them then. The public is the gainer, and apparently the growere, by dealing with a large quantitf, manage to make them pay well. One of them remarked to u, anent thir, that "The growers grambled then, they only do that now! " \(P\).
alpines, \&c., will be held from May 1 to October 15 Temporary exhibition will also be held from May 1 to 15, Jane 10 to 15, Jaly 15 to 20. Aagust 15 to 25, and September 22 until Oatober 15.

Our Almanack.-Secretarien of Horticultaral Societies and others, are earnestly requested to forward immediately, the dates of Show Fixtures and of Meetinge of Botanical and Horticultaral Societien of any kind for 1896, for intertion in the Almanack, to be pablished in our inane for January 4.

Gardenerb' Royal Benevolent ingtitution, Concerts at Altrincham.-The membere of the Altrincham and Diotrict Gardenera' Improvement Society have alwaya taken a deep interent in the welfare of the Gurdenere' Royal Benevolent Inatitution and of the Royal Gardeneri' Orphan Fuad, and the efforts made on behalf of thene denerving


Fig. 125.-mitonia fexillabit, in majos joicet's garden, sumningdale pabe.
syatem by mean of a refrigerstor has been practined for many gears, and with other plants beside Lilies of the Valley, though the method was inaptly described by the Times lat week as a totally new departure in horticulture. Ais matter of fact, it is fifteen to twenty yearm sincs Mr. Iceton, and Mr. dannock of Dersingham, both of whom were living then at Barnes, together made experimente in this matter, and the syatem has proved to be useful one by which to obtain flowers in late autamn. It is only now at the end of December that the produce from crowns ao treated can be beaten by early forcing. At Tuendas' market there was aome bloom of Astilbe (Spirsa) juponica on the atand belonging to Mr . Thow. Rochford, of Broxboarne, which we were informed was from laat year's clumpa so treated. The reaerve was nearly exhauated however.

In addition to the Lilies at Mr. Iceton's were good enpplies of \(\mathbf{R}\) (man Hyacinths and Talips. The last named take bedly to auch hard forcing, and alway at this date have the appearance that they have been roused from their natural rest cruelly soon. The

Miltonia vexillaria.-Oar illustration above, fir. 125 , represents an unusually fine specimen of a large-flowered type of the opeciez, at it appeared this year in Major Joicsy's gardev, Sunningảale Part. The plant was then growing in an 8 inch flower-pot, and carried thirts-aine flower-apiker, ench of which bore on on average eeven bloomp. We think, and our readers will doubtlen agres with w , that no fiaer apecimen of this beantiful apecies has been seen under cultivation, and that it reflecta much credit on Mr. F. J. Thonne, the gardener at Suaningdale Park.

GHENT.-A great Chryaanthemum exhibition will be held at Ghent, under the anspices of the Ryyal Society of Agricultare and Botsnr, from November 15 to 17, 1896.

National Swige Exhibition, 1896.-In connection with the exhibition to be held in Geneva next year, we are informed by Mr. Marc Mrcerli that permanent exbibition of trees, perenniald,
institutions have been aupported in generons manner by the public. Tae concerte were commenced in 1892, and have been continued annually aince. Thi year it wat decided to give two concerts, this apecial effort being made with the object of eatablishing a local orphan fad for the purpose of granting immedinte relief if occanion required. The attendance on both eveninge wat very large, every available portion of the large hall of the Literary Intiltute being occupied. Programmen of more than unal excellence bad been prepared for each evening, and the ervices of everal capable artinten retained. The committee were also fortanate in secaring the mervicen of the Sale and Athton Amateur Orchentral Society of forty performers, and the Veronese Mandoline and Guitar Band, whose selection were quite a feature of the entertainmente. The amount realised, after paying expenses, wan a little over £56, forty guineas of which goes to the Gardeners' Ruyal Binevolent Inatitation, and the remainder is ratained for the local orphan fund. Since 1892 the amount of \(£ 161\) has been raised in this way, \(£ 105\) of which has been went
to the Royal Gardenere' Orpban Fand-not a bad record for a small couatry town. Other Gardenera' Improvement S cieties please make a note. Cras. Hewitt, Hon. Sec. and Treasarer.

Meeting of the Biusbels Orchideenne. -At the lat meeting of the B ausele Orchidéanne, on Dicember 8, mome fine collections of Cattleyas and Cgpripediams from l'H sticalture Iaternationale were nhown. Fow persons would bave thought, even five years ago, tha: Cattlega: would ever form a feature at an extibition held in Dicember. A Firstclass Diploms of Hononr was awarded to M. Linden for a group of eight Catasetam ; almone for Cypripedium \(\times\) capartianucn with a very large standard, broadly oblong and entirely of a purplish-red colour, shading af the base into b'reckish-purple. De. van Cauwelaert obtained a similar award for Cypripedium \(\times\) Allianam. A First-clase Diploma of Honour was alloted to M. Warocqué, for a hybrid Cypiipedium (C. Lowi \(\times\) C. villosum), with a atandard like that of the latter parent, unfortunately mach bear, and with petals like those of C. Luwi very narrow at the base, bent back, very wide at the tip, and there tinted violet-rose. Firat-class Certsfisutea of Merit were swarded an follows:-To M. Linden, for Cypripediam \(\times\) Leeanum; to M. Warocq2e, for C. Curtial \(\times\) C. Lawrenceanam, \(\mathrm{A}_{\mathrm{o}}\) wera very large and massive, resembling thos of the latter pareas with the petals dotted with nameruas black warts tinged with red at the tip, the slippar very larga; to M. Van Imshoot, for C. callosam \(\times\) C. Argas Mce asi, most resembling the first parent, but with petale aputted snme what se are those of the other ; to M. Madoux (è l'unanimité) for Vanda Amesiana, very well-flewered; to M. A. Van Imshoot (à l'unanimité). fur Odontoglossam crispum; to M. Mydoux, for Cibtleya Warocquesas and for C. Harrisonæ (ooth à lunanimité), the latter with two flower-apike bearing very pale ronecoloured flowert with \& white lip bordered with very pale rowe and shaded with primrose-jellow round the entrance of the throst. Similar awarde were made (d runanimite) to Mr. H. Kaight, for Cattlepa maximas Leopoldi, with very larke deep red flowers; to M. de Lombaerdo (à lunanimité), for Oacidium variconam Rogersi, very tiae, wich large, richlycoloured flowers; to M. T. Pauwele (à l'unanimité), for Phalmpopsis rosea, rare, and with a tiae floral raceme; to M. de Moerloose (à l'unanimité), for Cattleya Warocqueana; to M. Maduux and to M. Pauwels, each of whom howed a plant of C. Warocqueana, the latter a very curioas one with a large straw-coloured lip, faintly bordered with very pale rose, and with a little red apot in the middle. Other First-class Certificstes were won an follows:By M. F. Panwelw, for Palreaopaia Schilleriana, bright roe-coloared; by M. Van Imahoot, for Odontoglonnum crispam; by De. Capart, for Lxelia Gouldians, deep purplish-red; by M. H Kaight, for Cattleya Warocqueans; by M Van Imshoot, for Lycaste Lacieni ; by \(\mathrm{D}_{\text {c }}\). Capart and M. Madoux, each for Cattleya Warocqueana; and by M. F. Pauwels, for Paalæiopsis grandiflora. Sacond-clas Certificates of Merit were awarded to Di. Van Cauwelaert, for Cypripediam \(\times\) Leeanum, with very large and almont wholly white standard; and two others to M. Madoux, for two more peciment of Castleys Warocqueans. M. Linden won wo Firat class C-ttificatew for flowering; one for Cattleya maxima gigantea, the
other for Vanda coruleaceng.

The Royal Botanic Society.-A meeting of the Fellows of this society wat held in the Museum at the Royal Botenic Gardene, Ragent's Park, on Saturday afternoor, 14th inst, Mr. G. R.'Ryder presidiag. Lady Twerpaouth, Mr, R. Heap, Mr. P. S. MayHew, and Mr. Joun Russelit were elected Fellows. The receipt of the following donation wat reported: Specimens of the flora of Havana, presented by S ño J. I. Torearbas, of Hzbana; Gowering pecimens of the B ae Gam (Eacalyptue globalus) and Acacia from Canne, premented by Mien Laighton. The secretary called the attention of the Fellows to
tome specimen of the society's uaique collection of
economic plante growing in the garden, iacluding Zomia integrifolis, Weat Indies; Caryota urens, India; Tapioca (Msaihot atilissima), South America; Arrowroot (Maranta arandinacea), Weat Iadies; and Canas edulis, India. There were also on exhibition a nuaber of artificial Ochid and other flower forwarded by Mer. Emett. The apecimens, which were exquisitely formed of a composition of wax, were so true to nature, that it was only by a close inspection and comparison with real varietien that any difference could be detected.

The National Chrybanthemum Society. -At the Geand Jabilee Calebration, to be held at the \(R\) igal Aquariace, Weatminster, on Tafeday and three followiug daya' (Nuvember 3 to 6) afxt year, we learn from \& preliminary achedale of apecial Jabilee prizos now issued, that the prize are offered in addition to those which are aanal at the November exbibition, and that these classes will be repeated in the schedule to be isnued at the end of the month of March next. Amongat the prizes is an open one for a groap of Caryanthemam plants in pots, to conaist of any rarietier, mingled with foliage plants (the foliage plant not necessarily to be growa by the exhibitor), to be arranged for effect in a circle of 12 feet in diameter. Tais prize will conaist of the Jabilee Medal in gold, and money prizen as well. Another God Jubilee Medal and movey award are offered fornine trained apucimen Carysanthemame. incurved reflexed or Japazesp, distinct; and a Suver-gilt Jabilee Medal and money prizes for six trained Specimen P.mpon Corysanthemums, distinct. These are likewise open competitions. Ia the cat-bloom clanef, Guld Jabilee Medala and money prizes are offered for sixty Japanese Corgsanthemams, distinct; and for sixty incurved Chrysanthemams, in not fewer than thirty-six varieties, and not mare than two of any oue variety. Good prizes are offored for thirtysix Anemone flowered Chrysanthemams, one bloom of each, distinct ; and twelve Pumpont, three bloom』 of ench, distinct ; swelve varietios of reflex \({ }^{\circ}\) d Cary anthemunn, thre blooms of each; and twelve varietie of Pumbon Caryanthemame, six blooms of each (Anemone Pumpons excladed); twenty-four varietiea of aingle Carysanthemanf, twelve large-flowered, and twelve mall-flowert, three bloom each of large varieties, and six blooms each of amall ones. Taese are open competitions. There are competition for growers for market in collection of fruit; special Jabilee \(\mathrm{pr}^{2} \mathrm{z}\) ?. , by various narserymen, for cat blooms; and for collections of vegetables, \&c.

Horticultural Club. - The monthly dinner and conversazione took place at the H stel Windsor on Taesday evening, 17 h inst. Taere was a large attendance of members and viaitors. The chair was occupied by Mr. Harey J. Veitce, and thare were present amongst otherp, the R.v. W. Wilk, M-ars. Philip Crowlev, Jamea Walker, Gıorge Monro, A. H. Pearson, George Pan', Peter Kiy, B. Selfe Leonard, James Webber, J. Asebep, and Arnold Mos* A very interesting and instructive addrean wa given by Mr. Gien. Monro on "Tae Fruit Sapply of Covent Garden." It was thoroughly practical, and was much appreciated by all present. Is also originated a brisk diacuanior, during which many surjects of great importance were touched apon. A hearty vote of thanks was given to Mr. Monro for him admirable address. Mr. Peter Kiy, of Claigmar, Finchlev, sent a basket of very beautifal Alicante and Canon Hall Mascat Grapes; and Mr. Suea alao sent a diah of very beartifal amplen of Gacoigne Scarlet Apples.

Mr. George Such.-American papers record the death of Mr. Sucr, of Amboy, New Jersey, a well-known horticulturiat, the fame of whose collections travelled to this aide of the Atlantic.

Colours of Flowers - The Scientific Committee of the R yal Horticaltural Society is deniroan of carrying out some experimente upon the effects of ingredient in the eil upon the colours of flowers. The Secretary will be glad to receive any information about accideatal or other reanite which forist or
other cultivatort have met with. Any reference to pablinhed accounts of changen of coloura in flowers will be thankfully received. Addresp, Rev. G. Henslow, Diayton House, Ealing, W

Ma. C. L. AtKingon.-The death at Portemouth, on the 18 sh ult., of Mr. C. L. Atkinsons is announced. According to Garden and Forest, he for many years had charge of Mr. Jobn L. Gardner's estate in Brookline, Manachasetta, and was one of the best known and mont skilfnl gardener that America has seen. Not only wan Mr. Aternsoza a remarkably gocd gardener in all bravches of the profension, bat he was a genial, generous, and intelligent man, fall of intereating information about gardens and gardening in this country and in bis native England, which in convereation he was alway willing to impart in a pictureque, and often highly entertaining maner. An honour to the profension, be will be missed and aincerely mourned by hil friend and associaten in the neighbourhood of Boaton.

Ayrbhire Gardeners' Mutual ImproveMENT Association.- At the monthly meeting of thin Association, held in the Carrick Street Hall, Ayr, on Tharaday evening, the 5sh ingt, the Secretary read a paper written by Mr. D. Mackif, Montgomerie Garden:, Tarbolton, entitled "Climatic Influencer in Ralation to Practical Gardening." At the conclusion, Mr. Mack'e was accorded a vote of thanke; as was also Mr. M. Ganly, Glendoon, who presided during the evening. The next meeting will take place on January 2, 1896, when Mr. A. H. Scott, Cambuadoon Gardene, will read a paper on "Flowering Trees and Shrubs."
"Cultivated Piants." - In correction of a atatement that we made in our issue for December 7, Mearre. William Blackwood \& Sons, 45, George Street, Edinburgb, denire to call the attention of our readers to the fact that thin excellent and most unefal book, by Mr. F. W. Burbrdae, is atill in print, and can be obtained through any bookseller.

The Devon and Exeter Gardeners' AssoCIATION. - The annual supper of this body of Devonshire pardeners will be held on Friday, January 3, 1896, at Martin's Castle Hotel, Caatle Street, Exeter, at 7 o'clock. In order that proper arrangements may be made for the comfort of those attending, tickets mast be taken not later than Dacember 27. Andrew Hope, Hon. Sjcretary.

Newcastle and District Horticultural Mutual Improvement Society.-The monthly meeting of this society was held at 25 , Weatgate Ruan, on Tuesday, Dacember 10 ; Mr. Jjo. Bullock presided over a cood attendance of members. Mr. Lawnov, gr. to W.J. Sanderson, E.q., Heathdale, Gowfortb, exhibited a few well-grown Chryanthemam bloom: ; and Mr. Larke, North Denf, Gitenhead, Chryanthemum and Pelargonium bloom. In the absence of the writer, the Secretary read an excellent paper by Mr. Kexling, late of Willywood, Riding Mill, on "Herbaceoua and Alpine Plante;" which was much appreciated, and favourably criticised in the ditcussion that followed.

Botanical Gabdens, Moscow. - Mr. C. Mücres, formerly hofiärtner to the Arch-Dake Sergids Alexandrowitsci, has been appointed succesar to Mr. Wofst, deceaned.

Putney, Wandsworth and District ChryeANTHEMUM SOCIETY.-The annual dinner was held on Tuesday evening, 17th inst., at the Railway Hotel, Patney. There was an exceptionally good attendance of members, and the proceedings throughout were enthusiatic and cheery, most of the apeeches being full of hope that the society has started apon a period of greater success than it has previously enjoyed. In this respect considerable satisfaction was expressed that the recent show was one of the moit aucceanful yet held, but it was unfortunate that the attendance affered through the inclement character of the weather on the occasion.
-NEW LILIES. - In the N Primber number of the Giornale Botanico Italiano, are deacribed and figured, by" Signor Baroni, two nen apecien of Lilium from China. Liliam chinense and it variety atroparpaream flowered in the Florence Botanic Garden L. chinense has linear preading leaves about 4 inches long; recurved, orange-coloured flower about 3 inches across; segment oblong lanceolate, atrongly recurved, and marked with purplish spots, L Biondi has also linear leaves, but shorter than in the preceding plant; flowers of the same general character and colour, bat rather maller; egments reflexed; orange, faintly potted, and with a fow warty prominences near the base. Both mpecie come from mountains in the northern part of the province of Shen-mi.

Chislehurbt Gardeners' Association.Taere wal a good muster of membera on Taes-
treats also of Equisetums, Loscopods, and hardy Selsginellas. (Pablinher, Octave Dors, 8, Place de l'Oden, Paris.) The author deal first with the botanical atructure, fertilisation, Faristion, and hybridisation, and geographical dintribation of Ferne, then of the pecaliarities of the aeversl species treated of. The secoud branch of his subject is similarly arranged. There is a fall index of namer, and the text is plentifully interaperned with amall illustrations - The Agricultural Annual and "Mark Lane Express" Almanac for 1896. This periodical contain much of interest to those intereated in agriculture, as it includes reports of the past year, a calendar of event for the coming onp, and many hints on auch aubjecte as Potato blight, cider, butter, \&c. Postal information and similar general content are incladed, an usual in ach pablications, amongat which this should take a good place.-Christmas Numbers. The Chrintmat Namber of the Queen is,
a catalogue of reed gathered this year, and offered for diatribution to immediate applicantr.-Bulietim de la Société Française d'Horticulture de Londres This is the record of a flourishing nociety of French horticulturists who have found the convenience of having a common bond and meeting-place in Eagland. Their meetinge are held on the firt Saturday in each month at 4, Od Compton Street, and their Bulletin, benide chrovicling lists of member and other matterm relating eppecially to the nociety, contain noten on the cultivation of acme of the lest-underatood plante, and aoggentions for improving upon old method of culture.-Cider. This monthly journal, "devoted to the interente of cider and perry," in directed and edited by Mr. E Samson. It ahould do much to increase on already thriving industry by attracting more wide-apead notice to a palatable and wholesome beverage atill comparatively neglected in some localities.


Fig. 126.-a dish of the catillac prap, greatly rbduced.
day, December 10 , when Mr . W. Cuthbratson, F.R.H.S. (of Mesarm. Dobaia \& Co.), gave an interesting and iostructive lectare on "Pansiea and Violas." The lecture way greatly enhanced by a number of coloured plate and drawinga.

Garden Directories.-The new insues of those very acceptable publications to gardeners, editors of gardening journalr, and others connected with horticulture, The Horticultural Directory and Year Book, published at 171, Fleet Street, F C., and The Garden Annual Almanac and Address Book, published at 37 , Southampton Screet, Covent Garden, are now before us. They are, as asaal, replete with useful information of a varied kind, including a lint of new plants of the year. The portion dealing with gardeners' names and addrensen appears to have been carefully brought up to the present date, so far an is ponsible in books of this magnitude.

Publicatione Received.-Les Fougores de Pleine Terre (Hardy Ferns). Thi book, written by our correapondent, M. H. Corrmyon, of Geneva,
as usual, readered both weighty and balky by the number and variety of ite content, both literary and pictorial. The Happy Homs also isaues an excellent Cbristmas Namber, full of interesting and amuaing articles and picture appropriate to the season. Nature Notes for Decfmber contains, in addition to other papery, a charming article by John D. Batten on "Bats."-Sutton's Amatewrs' Guide to Borti. culture. Measre. Sutrow may be congratalated on substitutiog photographic reprodactions for the glaring and misleading chromo-lithographs once no popular. The photograph block of vegetable are beatiful in their rendering of texture and veining. - Máénm d'Histoire Naturelle. From this inatitation comes the Catalogus des Graines et Plantes Vivantes offertes pentant thwer, 1895-1896, aux établissements pubics d'instruction. This is a list of many apecier, ome comparatively little known, ave by specialist, and which, as the above word teatify, are cff: red to certain applicants. Sach plante as are not hardy in Paris are indicated by an asterias. From the Jardin de Pianter, Montpellier, comes

\section*{CATILLAC PEAR.}

One of the best known and most usefal culinary Pears is Catillac, which, when carefully placked and properly kept, remain in good condition till the apring. Although not particular in regard to noil, the tree does beat in ricb, fairly deep coil.

The fineat expalier-tree I know of, grown in the garden of Mr. Joneph Ham of Budlake Farm, Broadclyat, near Exeter. This wame garden, in the early years of the century, was in the posesation of the great-grandfather of the present head of the Exeter firm, Mr. Peter Veitcb, and it is one of the best fruit-gardent in a diatrict noted for fruit. The Catillac wap, twelve years ago, grafted on to a Beané Rance planted against a atone wall, with a south-western aspect; the Bearse Rance having done badly. The tree hat for its aize, borne well, and this year it carried from sixty to eventy fruits, which were ultimately redaced to twenty. Five of these, weighing \(9 \times \quad \mathrm{lb}\)--the beavient weighing 21 lb .-were shown at the fruit show at Exeter,
taking the let prize for calinary Peart (6f. 126). It is a remarkable fact that for nine geare in enceession, thie tree bas prodaced the 19t prizs dish of Catillac at the Exeter show. Late sear the weight
ot the five frits thown was 81 l . 12 (z , ond the gear ot the five frits on own wat 8
before a'mot the same. Ioca

Plant portralts.
 December.
December.
Aspidium margivale, Mehzas Minthb, Dssember.
Berberis heteropoda, Garden and Fores", November
Cazochortus luteus Concolor, Gardes, December 7.
Chryantermun Captaik Luciem Chauré。 Momiteur
a'Horticulture, December 10 .
Echidnopss Dammanianus (Schweinfurth), Gaitenflora, p. 635 .

Fothergilla Gardneri, Garden and Forest, November 6.
Hemitelia Lindeni, hort. Lidden (dwarl Peruvian Tree
Fern). Lindenia, t.4.
Hybrid Willuws (3alia albi \(x\) lucida and g. nigra \(x\)
alba). Garden and Forest, October 23.
aba), Gardem and forest, October 23.
Kılmi Cunfata, Garden and Furest. 435.
Odontorilossum Citrosmum, Revu: di Horticu:ure
Odontorilossum Citbosmum, Revu: di l" Horticu"ure
Belge, December.
Belge, December.
 Phyllocactua Kermesisus, hort. (colour carmine), Gar temflora, t. \(14 \% 1\).
Yucca Whipplet, Garden and Fon est, October 16.

ONION HIGHCLERE TANKARD
The Oaion Highclere Tankard (ag. 127, on p 747) is the reault of a crosa batween Ailas Craig and Pinesfield, the latter being the seed-bearing parent; my idea being to combine aize and better-kepping qualitien, many of the larger varieties of Onion beirg somewhat deficient in this latter respect. The aped of the Onion mentioned above was aown early in Fobruary, sad grown on for a time in a little heat, the plants being pricked cff into boxen when large enougt, hardened off in due course, and planted out-of-doors about the middle of April. Water wae given to each plant singly with a apout-can, and the Datch-hoe used to loosen the soil an soon as poasible afterwards; no more water was afforded them, and about the middle of the month of May a mulch of apent Mushroom-dung was applied to check evaporation from the aoil. W. Pope. [We selected this Onion not only for its intrinaic merit, but also for it ammetrical flagonlike form. Consumers will not consider this matter, but those who like to know "why and how" will feel an interest in speculating as to the why and wherefore of thit thape. ED 7

\section*{Home Correspondenoe.}

A britian ferneay. - As it is quite impossible, in or near large centres of labour, to get together a decent representative collection of our native Ferns withont the sid of artificial means, it follows that hous of some kind is, absolutely, a sine qua nom. Tae form that house shall ancume and the beat way to go to work to conatruct it is, perhaps, the next important point, and I think that question has been verv carefully and astiafactorily solved by Mr. Chas. T. Diuery. Personally, I am under an obligation to him for the detaila therein supplied, although I cannot now bring my own littie fernery into a aemblance of ite more magnificent rival. But that, perhaps, is hardly necesis charming. Having, then, fixed upon, variety is charming. Having, then, fixed upon the mont available spot, according to the exigencies of
the surroundings, and the capacities of the parsp, the next thing to do is to go in search of those lovely ferny forme for which wo have lately contracted anch an intense desire to possens. There are anre to be plenty of disappointments in atore to damp one's ardour, but the quest, neverthesweet fresh air, will do mach to compensate one's inability to record a "find"." Since addrusing my querie to Mr , Druery, I have been
to North Wales and Sjuth Durset. In the former place, I hunted high and low, mountain and moor, river and rcck, but I could no's find a variety worth recording. The common Polypods (Polypodicm valgare) in many places was aimply innumerable, but there was no trace of the Welah ore (P. v. cambricam). Tae Parsley Fern (Allosoras crispan) diapated with ranker "weeds" the right to occupy whole acres of Soowdon's craggy heights; but never a crested form to greet one's geza. The Hard Fern (Blechnum Spicant) was also therp, stanted and abnormal, it is truo, but that was only due to eleration and exponar, for in the valleys netling beside some quirt pool, its fertile fronds attained the length of fully 3 feet. In point of numbers then, the normal form were ad libitum, while the varietal ones were, unfortanately, "conspicuoas by their absence." And no with some other Ferns-aptcié galore; varietiea non u'la; i.e., not anfficiently distinct to warrant recognition as such. The ordinary Fern-hunter, then, will have to be content with pecies; the more-highly developed forms mast ba sought in other quarters. When, however, the Fern have been acquired by hook or by crook, they mast be either potted up or planted out, and this will be largely dependent upon the constraction of the hoase. If they be tranuferred to pote, they will require constant supervision. 1f, on the other band, they be planted out in a good body of aitable soil, they will not only give infinitely less trouble, but will remain in finer condition over a longer period. As an inatance, I may mention Athyrium f.-f. Elworthit, which persiatr, with me, three or four week alter a daplicate in a pot has died down, and so with the apecies. Bat it may be here remarked that deciduous varieties generally seem to have a tendency to live or, more or lea, long after their progenitors have gone to reat. A. fo-f. gives up its cërial existence about the end of October; A. f.-f. criatatum continues for another month; whereas A. f. fo plumosum Drueryii pervists till Christmas, and so with Osmanda and ita varieties. The type goen first, then cristata follow, while palugtris is practically evergreen. O\& courap, I refer to planta under glaar, and I agree with Mr. Dracry that the less artificial heat the better. All I aim at is the exclusion of frost, and for this purpose 1 usp, in severe weather, Wright \& Butler's hotwater oil-atove. Thus I am enabled to preserve the fronds of the evergreen pecies and varieties all through the winter, and they become not only things of beanty, when everything else has failed, but perpetaal joyw. A neighbour of mine is fond of twitting me about the time and labour I give to British Ferne, when, he ady, you can go to Kew and wee a far better collection. MTr reply iv, "True; but thone are not mine : thene are." Posseasion is better than denire ; but tomehow or other one is al way s wanting what one has not got. Moreover, it often happens that the beat varieties fetch the higheat pricea, and are consequently withont the reach of those with limited means. That "man wanta butlittle here below" is quite a fallacy-he is alwaye running after "good things:" and Mr. Druery refers me to some good thinge when he auggests a perasal of his article for August 27, 1892. Mr. Druery may be pleased to learn that the accompanying illustration of his decorative Fern-house occupies a neat little Oak-frame on the wall of my sitting-room, and often inapire me to higher aim. C. B. Green, Myrtle Road, Acton, W.

CATTLEYA BOWRINGIANA - For the information of your correapondente who have written about thi apecies of Cattleya, it may be mentioned that recently a plant here produced a apike with twentyfour flowers. I cannot think that there is anylhing remarkable about this, as seven plants of this epecies are nearly the total number of our Cattieya plante, and the plant in quention has been here seven or eight yeary, and abjected to a temperature considerably above that usually recommended for Cattleya. Years ago I had some experience amongat this genas, and jadging from observation made at that time, I believe C. Bowringiana to be an eatily-cultivated apecien. It undoubtedly has a good conatitation. Thomas Coomber, The Hendre Gardens.

LAAGE ONIONB. - The fine collection of homegrown Oaions exhibited at the Drill Hall on the 10th inst, by Mr. W. Pope, of Highclere Catile Gardens, was one of the best of ite kind over presented from a private garden. There was furnished inatractive evidence of the remarkable effects of high cultare on these bulbs as compared with what resulte from ordinary culture. For, in ieveral cases, bulbs of the asme variety, bat grown under diverte conditiong, were shown. The couditions
were, sowing cesd in shallow boxes in January, and in gentle warmth uader glass, growing the plants on thialy in frames, and when stout and strong, transplanting into well-prepared soil, mach more thinly than usaal outdoors in Aril; or aowing seed in shallow drills on sil prepared as usual for Oaion, and in the open in the month of March, giving, during the season, suct thinning and cultare as is common. The transplanted plants mostly eacape attacks of the maggot, and being pecially thinly planted and robast, asually also anfer leas from mildew than plants raised in the ordinary way. As to which method of cultare will give the greateat weight of balbs per rod of groand, there seeme to be at present no information. Mr. Buwerman, at Hackwood, who this year grew the heaviest balbs, grows his transplanted ones every jear on the same ground. and fiads improvement in weight and abatance yearly also. It worthy of conideration as to whether auch aplendid bulbs as those hown from Highclere, Hack wood, \&cc., would not pay to prodace as a parely market product. If the pablic know how aperior in texture and flavour they are to any other Oaion, impurted or otherwisp, a great demand for uch balbs would doubtless soon arise. A. D. UA products of cultaral skill these very large dishes usefa', bat in general ase in the househol? they are watefol to a degree. ED]

THE A. F. BARAON NATIONAL TEBTIMONIAL.I whould like to suggest-quite anofficially, of course -that the secretaries or tressarers of the numerous metropolitan and provincial horticultaral aocieties be requented to make some contribation, however mall, to the national tentimonial now in course of formation for Mr. Barron. Is is not moch the amount, as the widely-extended nature of the aubscriptions, that is wanted in a case of thim kind. Some of us are anxious that it should be really national, as a genial expression of fellow-feeling for one of the most generally respected membern ol our profeasion. The act of the \(R\) jyal Horticultaral Society in offering a life-membership to their late garden auperintendent, might well be emphasised by the Council making some special grant to this popular teatimonial. The Chairman of the Committee in Dr. Masters, F.R.S., the Hon. Treasurer is H. J. Veitch, Esq , F.L.S. and all unberibtions, \&cc., ahould be sent to the Hon. Secretary, B. Wynne, Eıq, 1. Dane' Ian, Strand, Lindon, W.C. F. W. Burbidge.

APPLE NEWTON WONDER. - In answer to Mr. H. Markham' letter ia the Gardeners' Chronicle, p. 710, respecting Newton Wonder Apple, I wish to say that I was the raiser of the variety, and not Mesars. Pearaon \& \(S\) sns, Chilwell, as atated; and that with regard to it good qualitien, it cannot be too highly spoken of. It is an excellent culinary and dessert Apple from the end of the year till Jane. As a proof of ita ker ping quality, I have exhibited fruits of the previous year at several ahown in the month of Jaly. The tree growa freely, crops well, and is not liable to canker. I have a "liat" of young trees which were grafted three and four years ago which carried a fine crop of fruit this year. The mother tree, now twentr-seven years old, stands in my garden at King's Nowton, and, if I remember rightly, it came into bearing in 1876. When Menart. Pearaon became acquainted with the variety they wrote expressing the wish that I would sell the tree; but I declined to do thin. Then they inquired if I would sell them fifty trees, which I did; and also gave them a dich of fruit, which they ent or took to the Royal Horticultaral Suciety's meeting at Chiawick, receiving a Firat-class Certificate on December 13, 1887. Wm. Taylor, King's Newton, near Derby.

IMPORTATION OF HORBERADIBH.-I gm exceedingly pleased with your remarks on p. 683, renpecting the importation of Horseradisb, and would very forcibly endorne the remarks that I made at the meeting of the Royal Horticultural Society. The "imported Horseradiah" bas acarcely any flavour, and may be generally known by its epecial manner of growth, which is very different from the homegrown roots, which, if properly caltivated, are only one year's growth, while the Datch is at leat two years, sometimen three years old, being grown from what gardeners call "jags," that is, amall roots. By this method the aticks are larger, but tough, and almont taateless. They may be known by the forked rootlets at the bottom of the atick, and their anandy colour. The Eaglish produce is cat straight of with the spade, and has no roota at the end of the ntick. The ale by the retailera or greengrocer of
the Datch Horseradish has ruined the trade to a great extent; the pablic will, not use Horseradioh becanse imported roots are generally offored them, and after trying it a few simes they "give it up." \(\mathrm{M}_{\mathrm{y}}\) advice to lovers of the root is to obtain sone of each wort and try the diffarence, and I am conviaced they will not again use other than Eaglish roots. The reason the greengrocer prefers to soll the Datch is very plain; he can bay it at a very low price, sad even this is more than it is worth. I often tell my

In Jane, 1894, I planted some in a very exposed poaition; atter the abnormally nevere weather of February last, I fally expected to aee them killed, but was agreeably arprised to find them uninjuredwherean the common Laurels a few yards away were severely damaged, and many of them killed. B. Metake is no doabt the hardient of the species. I find that Jane is the best time to plant, which should be in well-manured nil, afterward giving liberal supplies of water. \(W, B, G\).

 ( BRH P. 746.)
cuntomers in the market, "You may as well buy Parmipy and ncrape them, as use this imported thaff." J. M. Mason, Market Gardener, East Greenwich, S.E.
bambusa metake.-Considering the limited number of ahrabe that thrive well in Londou and other large town, where the atmospheric conditions are so very detricaental to many thinge. we cannet affurd to ignore anything that does thrive well. It has often surprised me that Bambasa M M take is not mach more extensively planted, ualess it is that many people imagine it to be less hardy than it is.

MORELLO CHERRY CULTURE, -In theme time for reasons of economy in manal labour thers is one department of work that remaina pretty nearly impregnable to all innovation, and that is the pruning and nailing of froit trees. Glancing at what our predecessors in the profestion did in this line, and comparing it with that of the present, my impreasion is that it was better done then than now; and the is that it was better in the Gardeners' Chronicle by Mesars. H. W. Ward and D. T. Fish, in reference to the Morello Cherries in Scone Palace Gardens, is a notable example of the trath of my contention. I cannot nay in what condition those tireer may now be,
but I have a vivid ffcollection of what they were fifty yeare ago, and few indeed of thoue who had the privilege of nailing tbose treea can readily forget the appearance of the wall when finithed. Under Mr. Dudds, frait culture was really well done, bush, pyramid, and standard treea wese all grown, but the walle were a pecialty, and the treat modele of neatness. The effect ot Mr. Dodde'trainirg on myelf was such that, when ciscumatances placed a wall covered with Morello Chersits uoder my own care, I made it a point tokep the praning of the tree entirely in my own handa, and bave done ofor more than twenty years. The oil in these garden is a atrong loam with a clay botom, which is unfavourable for the longevity of the treep, at it lead to gumming and canker at the bottom. The Morellon at Scone were certainly at home in the matter of moil, which in fairly atrong, as thone who had to trench any of it will remember, and in dry weather it was hard atuff to pulverise. G. Smith, Vice Regal Gardene, Eublin.

RHODODENDRON CUNNINGHAMI -In a garden in a sheltered part of this village is a buah of this beautiful plant now in fall bloom. It has been in this condition all this month, notwithetanding that on three occasion during the lat fortnight the thermometer has been down a tew d grees below freezing point. The plant is 5 feet high and 6 feet through, and han a trus of six to nine flowers upon nearly every branch. It forms a cunppicuous ohject amonget other shrabs, none of whtch are in bloom excepting two species of Chimonanthas. The only bite of colour near are the scarlet hipa of Rona rugona. The air is highly acented with Aponogeton in a neighbouring pool, on the margin of which a strong clump of Bambasa palmate is dieplaying ith apple-green bread leaves. W. T., Bishopsteignton, B. Devon, December 14.
game covert planting - My experience with Rhododendron ponticum at a covert-plant teaches me that thit rabbit-proof evergreen can be overdone. I have seen it planted thickly for the encouragement of winged game, but in the course of a few yeara it had growr, and become so dense, that it proved quite the reverae to what was intended. [Why not thin? ED] Tae bybrid Rhododendron I have no experience of for that purpose, but should asy these would anawer the parpone better, being erect-habited an a rulp, lean rampant, withmore rigid brancher, thas allowing the birde to move about freely, and make their encape when molested. I thould eay that thene are alluded to by Mr. Harrison Weir on p. 684. Where auitable soil existr, there is not a more useful and ornamental hardy shrub for covert planting than the Rhododendron, bat K . ponticum chould not be too eztenaively used. Where rabbita are kept dowr, Cutoneaster Simonai makea an attractive and uaefcl covertplant, which, when afforded light, growe freely, and is covered in the autumn with acarlet berrien, which pheamante eat readily. But this shrub, like so many otherp, is sometimes deatroyed by the rabbite. Rosa ru ons, I regret to hear, sbares the ame fate, which is a pity, an when planted in clumpa of moderate siza, it would aurely be an acquisition. On p. 685 a correapondent aaked "H. G. C." if he would give the names of a few plante which he has found to be rabbit-proof, and I hope the latter will be able to do so [epe p. 719, Ed.] Now I am writiog, I may mention a plant which I have found "rabbit-proo"," that in, the common Box; and on a limestone or chalky eoil I do not know of a more asefuland hardy ahrub to plant than Box as a covert plant; ite only drawback is it comparatively alow growtb. Sime yeara ago I procured a aeglected Bux edging from an old garden, which, after pulling it to pieces, I planted over a conviderable space of wooded gronnd, montly O.k. The wood warmed with rabbits, bat to the beat of my recollection, not a Box plant wat injured by them, and in a year or two the plante had become quite reapectable little bashes. I consider thin to be the best ase to which old overgrown Bix edging can be pat. Whether the "tree" Box is touched by the rebbits, I do not know. On the wame entate, we had one old bush which uned to seed freely, young plant coming ap on every nids. Is not this a very anonal thing? J. Easter, Nostell Priory Gardems.
cephalotaxue drupacea.-Roferring to the nota and illaatration of this evergrepn ahrab at p. 717. I should be glad to kuow at about what age this plant bears seed. There are several plants in this garden, nome of which have been growing in their presant sites meventeen jears, but as yet show no nign of bearing fruit. I note this plant, like
many others of a aimilar type, quickly changes the coloar of ite leave from a deep to a pale green when growing in toil too heavy and retentive of moistare, or where chalk abounds. E M. [As male and female flowere grow on different plante, your planta are doubtlesa all of one gender, hence the sbsence of need. En.]

THE USE OF DECIDUOUS FLOWERING SHRUBS. - "J.," p. 719, in his concluding remarke anent the planting of Apple treea in shrabberies, alludes to much felt want in the beautifying of so many ahrubberies. Too often these are planted sbundantly with Laurels. Yows, and other equally common sabjecte, many of which might well be dispensed with except in special cases such as forming acreens to shat out objectionable buildinge or obtain privacy. True Portugal and the Common Latarel in its varieties are puitable chrubs for planting in the partial shade where perhaps nothing elso woald grow. In the open, however, other genera ahould be employed in preference. In planting shrubberiex, whether it be with flowering plante or with evergreene, there is generally far too much of the "dotting" method practised for the planting to be effective, eapecially when the plant employed are of mall size. How mach better a group of, say, six to twelve plants of any apecies would look as compared with the plan of apreading the same number over fifty lineal yards of a border. Take, for inatance, the different varieties of the Pyrus family, the Deatzias, Broom. Syringa, Weigela, Almonds, or even the common Ribes zangaineum and others, which, if planted in bold masses, affosd a much finer effect than in the other manner. Not only to flowering plants do these remarke apply, but to subjecte that are planted for the beanty of their branches or foliage. For inatance, the common Dogwood, Cornas anguinea, is most beartiful when seed in a mass of ruddy shoote, and the shrub looks well when growing beside watel, \(E . M\).

I can endorse all that has been aiaid in thene pages of the auitability of varieties of Crab for planting in the garden and pleasuregrounde; and when I have been given a free hand, I have done this for come time past, and the effect has been greatly appreciated by ownerit of gardens. I ahould, however, plant the large fruiting varietier, beautiful as they arp, in the orchard or kitchen gardon, the trees lacking the lightness of habit, and the fruite the brillisccy of colouring of
the amaller-growing and fruiting onen. \(H\). J. McRonald, Chichester.

THE ROYAL HORTICULTURAL SOCIETY'8 COM-MITTEE8.- Without going so far as to inclade myself as one of those gardeners in the provinces who do not read the reporte of the London meeting", I can cordially re-echo the parport of "J. S. W.'s" remarks (p. 719). For aome years patt I have met intelligent fraternity who have condemned the idea of London alone being thought the "hob of the aniverse" at to granting certificaten to the varied produce of gardens. These pernons were not gardeners alone, bat inclade others eminent in the nureery and allied trades connected with horticulture. Permonally, I hare watched with interest the general good work done by the Royal Horticultaral Society, but seeing that we cannot all reaide near Londor, I do not see why it ahould not extend its influence outwards all round. These are days of decentralisation in many important matter, why not the Ruyal Horticultaral Society follow anit? Sarely there is plenty of organiaing power in the horticultaral world to work out a feasible scheme of local govern-ment-if it was only put to the test. Of one thing I feel mure, vik, the Royal Horticultural Society will never gein the support of the main body of country horticulturiste antil its worth is brought nearer to them in a practical form. Why not have local committeen near every large city and town, where long and succesaful exhibition are held, giving them power to grant certificates for meritorious specimens, as from the Royal Horticultural Society? In districta where gardons are plentiful, quarterly, or oven monthly meetinge for a portion of the year, might be held for the same purpose. I might aay more, but will refrain-firat, becase otheri more competent may perhaps take the matter up; and ecconc,
I shall be treapasaing on jour valaable epace. H.J. C., December 16.

Your correspondent "J. S. W." in yoar isune of December 14, opens up an important and interesting aubject, when he auggeats that aomething might be done to bring the Royal Horticultural Society" into cloter contaet with horticulturiate all
over the country." That there would be some difficultie to surmount goes without saying, bat if there is sny way by which the society could eatablish itaelf in the hearts of the people in the more diatant, but yet important centrea in the kingdom, these difficultie would soon disappear, and the connection thun formed would no doabt be the means of atrengthening the society in varions waye. Your correspondent ayy "that provincial men have not balieved that all the talents were confiaed to London and neighbourhood," and the committees and local men might well reply " oo asy we al!." It is nevertheless true, that were it not for thone men who have not "ull the talents," the Royal Horticultural Society would cease to be a factor in the horticultaral world, for the "proviscial" men rarely attend it meetinge, and sad to think, some of them do not even read its reports-or when they do so, they give tham bat mall crelit. The horticaltarists arouad Luadon and in the nearer counties keep the fortnightly meetinge going for the most part, and are rather entitled to the thanke of their provincial brethren than otherwise ;while to assert that more scant justice is done to distant fellows or to exhibits coming "from afar" is an insult to the committeen, which every member of them will reaent. An exhibit from Scotland, for example, will have due allowance made for its long journey. \(\mathrm{Ba}^{+}\), granting that thinge are at present well done, is there no posibility of improving them as "J. S. W." saggeats, by having provincial committees who woald ait in various centres from time to time, and before whom locally raised, bat atill it may be most meritorion, plants, flower, fruits, or vegetables might be brought by persons who had no opportanity of placing them before the regular committean in Lindon? By such an arrangement the Royal Horticaltural Society would be brought into closer contact with the district, and I am convinced that many persons would become members when they found nome of the society's work to interest themselves in. It ip, perhap, not to be expected that those in the immediate neighbourhood of the seciety's meetings can exactly measure the feelings of those at distant centres; but, apeaking for myself, who war, until recently, located on the other side of the border, I have often, in past yearr, expressed the hope that the time would come when the Royal Horticaltaral Society would find itzelf able, like the Royal Agricaltural S sciety of England, or the Highland Society of Scotland, to make a real royal progrens through the kingdom from time to time; or if not that, then to have committeas at various centres armed with its power and authority. These committees would, of course, be in direct touch with the London centre, and might-to main tain a closer link with the head-be presided over by a capable member of the central body. A glance at the list of Scottish fellown, or even north of England onen, will impress anyone with the idea that something should be tried to make an improvement. A small committee should, at the annual meeting, be appointed to consider the matter. Robert Fife, Orpington, Kent.

Dresden.
INTERNATIONAL HORTICULTURAL EXEI. BITION AT DRESDEN, MAY, 1896.
Tae Committee of the Second International Horticaltaral Exhibition to be held at Drenden from May 2 to 10, 1896, has the great regret to announce the death of both the Honorary Prenidente, Mr. Alfred Steibel, Mayor of Drenden, and the Firat Prenident, Mr. Gartar Krause, Director of the Royal Gardens of Dresden. Both gentlemen have always whown the higheat intereat in all matter concerning the exhibition. The prevent advanced atate of the andertaking is in a high degree due to the kill and munificence of the deceaved, to whom \(S i x o n\) horticulturist are greatly indebted. Their memory will be held in honour by all who had the pleasure to be connected with them.

The Honorary Presidentahip hat now been beatowed apon the present Mayor of Dreaden, MBeutler, Privy Councillor of Finance, while Mr. Radolf Seidel, nurueryman of Lanbegast, near Dreaden, has been elected first President of the Committee; Mr. Fr. Bouché, Director of the Royal Garden at Drenden, and Mr. L. R. Richter, nurneryman at Striesen, Drenden, are second and third.

The works on the exhibition grounds are proceed ing astiafactorily. The beantifal main bailding is nearly ready, so is the surrounding park, which had to be laid out afresh efter the denigas of Mr. Bartram, Köjigl Gartenban director as Dresden. The annexes to be erected in addition to the main palace will be commenced in the cuarse of this month, and all will be ready in time for the opening. In general everything has been done to make this Dresden Dscennial Exhibition a great anccess.

\section*{New Invention}

SEASELL'S PATENT ORCHID-BASKET.
Faseion asserts itself in most thing in soms manner or other, and lately it appears either that the Orchid-grower is getting tired of the oldfashioned Orchid-baket, or that the inventor: are determined that he sall try other of a different pattern. Several of these new invention have been advanced lately, and Seasell's Patent Orchid-Basket has new featurea which warrant its trial in gardens. The inventors, particalarising one important thing in its atructure, say "the top of our banket being round and sancer-thaped, the water (which can bo applied by a watering-can or ayringe whilat the plant is in position) is carried direct to the centre of the compont, wetting it all thoroughly, and the four top corners being left on, prevent rapid evaporation." Many other advantages are claimed which practical test will no doubt noon decide. The basket in neat and seemingly darable, and so, no doubt, will meet at least aume of the requirements of the grower.

\section*{SOCIETIES.}

\section*{ROFAL HORTICULTURAL. Scientific Committee.}

Deormber 10.-Present: Mr. McLachlan, in the chnir; Dr. Müller. Dr. Russell, Mr. Michael, Dr. Bonavia, Rev. W. Wilkg, and Rev. G. Henslow, Hon. Sec.
Carnations attacked by Grubs. - With reference to Dianthus glacialis destroyed by larver, brought to the last meeting by Dr, Müller, Mr. McLachlan added to his previous observation that he presumed that they were of the same nature as those brought before the Scientific Committee in 1892. The perfect insect obtained from those grubs was then determined to be Hylemyia nigrescens, for many species of black flies infest greenhouses, and it is imposmble to distinguish them from the larvee alone ; but on one occasion whes they were bred they proved to be the species named above.
The Colours of Flowers.-The question was raised whother t would not be possible to carry out some experiments with various substances in the roil to test their effecta upon the colours of flowers and fruits. Mr. Wilke remarked upon the effect produced by hoeing in quicklime and soot over the roots of various Apple trees, with the result that a crimson-egarlet hue was imparted to the fruit. With regard to the supposed action, it was a question how far the lime could affect the colour, for if the ammonia was presented in the form of sulphate, it would tend to fix the lime, though the soot itself would certainly be a vehicle for the ammonia. This is a known agent for improving the colour of Balsams, Weigelas, \&e. ; peat also uppears to have a similar effect. Hence the deeper coloration would be due to the enhancing the assimilating powers of the foliage. The case of Viola oalaminaria was mentioned, 2 speciee which absorbed salts of ziac from growing in localities where the carbonate of this motal was abundant; and Dr. Müller alluded to the peculiarity that it did not appear solely as an accidental ingredient in the plant, but that it actually entered into its constitation. Mr. Wilks was good enough to placa some Apple trees at the disposal of the committoe for experimental purposes, and it is aleo proposed to use white Hyacinths as soon as the procedure shall have been determined upon by Dr. Mülles and Dr. Russell. The committee will bs glad to receive information from any correspondent who may have had experience in the changes of colours through the action of the soil in any way.
Cypripedium, Origin of the Slipper. - Dr, Bunaria gave the following possible morphology of the labellum of this Orchid -"In Canada a wild Cypripedium (Selenipedium) acaule has a natural slit down the median line on the front of the slipper. This suggests that the alipper may have been originally an open labellum, like that of other Orchids, while the incurving of the edges and their final fasion made a slipper. To-dsy at the meeting I saw a Cypripedium with its alipper open. Thi may have bsen an aocidental reat; but, supposing this to be so, the fact that the rent occurred dowa the median line show , Moreovar in several there was listinct line down the middle, and in in several there wased towards that line : in othere both the veins and median line were obliterated

\section*{EDINBURGH BOTANICAL.}

Deosmber 9.-The monthly meeting was held in the rooms of this rociety, St. Andrew Square, on the above date, at 8 P.M. ; the president, Dr. A. P. Aitken in the chair. After the conclusion of the private business, consisting of the reports of the council and the election of new members, the first item of public business was the reading of an obituary notice of Professor George Lawson, by the assistant-secre tary, Mr. J. Terras, B.Sc.
The only exhibits were plants from the society's garden, and consisted of Asystasia scandens, Catasetum Christyanum, Corynostylis hybanthus, Aphelandra chrysops, Luculia gratissima, and others.
A report of the excursion of the Scottish Alpine Botanical Clab to Tyndrum last August, was read by Dr. William Craig, who describel the plants found by meabers of the party. A desceiption was given by Mr. J. H. Burragra, B.A. of the male inflorescence of Nepenthes bicalcarata, with drawings from microsospical sections of the glands.
The curator, Mr. R. Lindsay, read the report on "Vegetation in the Batanic Garden," and stated the absence of fruits this season was very marked. Mr. R. L. Harrow exhibited the specimens namol above, and read a few notes on plats in the plant-houses.
The report of the Meteorological Observations taken at the garden duriag November, was read by Mr. A. D. Riohard sox. The maximim of the self-registering protected thermometer was \(57^{\circ} 4^{\circ}\) on the 11 th; mainimum \(29^{\circ} 9^{\circ}\) on the 2nd. Frost occurred on two days. The maximum of the radiation thermometer in the sun was \(91.6^{\circ}\) on the 10 th ; minimum on grass, \(19^{\circ} 5^{\circ}\) on the 2 Id . Frost on grass occuries on fourteen days. Rain fell on twenty-three days, the total fall being viz. 0,320 iach, fell on the 15th. The mean of the barometer riz, 0.32 J inch, fell on the 15 . The mean of the barometer
readings at \(9 \mathrm{~A} \cdot \mathrm{M}\). was 29.717 inches, being 0.113 inch below average for November for five previous years.

\section*{Colonial Notes.}

\section*{NEW SOUTH WALES.}

Ma. J. H. Matden han publinhed, under the anthority of the Colonial Government, a handy little pamphlet on the timber of New South Wales, and the trees by which they are furnished. It is valuable not oniy for the practical information it contains, batialso as a means of fixing the popular nomenclature, which is very chaotic.

\section*{Quegnsland.}

From the Department of Agricalture, Brisbane, Queenuland, comes Bulletin XII., for October, 1895. Its pages deal with Pestiferous Fungi, by M. C. Cooke, M.A., and Peculiarities of the Qusenaland Flora, by F. M. Builey, F.L.S., both valuable and iateresting papers, to which we shall allude hereafter.

\section*{Jamaica.}

Mr. Fawsatt has issued an interesting report on the work of his department for the jear ending March, 1895 , an 1 to which we mast call farther attention later on.

\section*{Trade Notice.}

\section*{THE SAITAMA NURSERY CO.}

THs following letter, under date of November 1, 1895, has been received by us from the manager of the Saitam 3 Narsery Co , 26, Nishi-Tateno, Tatinka, Kita-Adachi, Saitama-Ken, Japan:-"I beg to inform you that I have established a company called the Japsu Saitama Nursery Co., for purposes of direct exportation to foreign coantries of all varietien of plants, seede, balbr, and expecially Japan Lilier, sad if favoured occavionally with your ordert, I will enteem myself indebted. The place in which I am now living is the habitat of the Lily in Japan; therefore the apecies obtainable are much finer than those of any other part of Japan. My own expzrience an a bayer enables me to parchase the mont spproved goods as cheaply as any long-entabliahed lurtery here. I have edited the Collection of the Lilies of Japan. I will present you with one volume, and I wish you to send many orders for Lilies! Oar Japanese editor-nurneryroan telle us further of Lilium gent a price-liat of the principal species preking, grown by him, and the prices inclade packing, boxing, and transportation to the ship. He it decidedly quite up to date.


The term "accumulated temperature" indicatizs the angregate amoant, as well as the duration, of degrees of temperature above or below \(48^{\circ}\) Fahr. for the period named : and "this combined result is expressed in Day-degrees-a "Day-degree" signifyiag \(1^{\circ}\) continued for twenty-four hours, of any other number of degrees for an inversely proportional number of hours.]


The districts indicated by number in the first column are the following:


THE PAST WEEK.
THe following summary record of the weather throughout the British Islands for the week ending December 14, is furnishel from the Metearological Office:
"The weather during this week continued in a very changeable and stormy condition generally. A good deal of rain fell over the Kinglom but the fall was comparatively slight in the north-east of England. Thunder and lightning were experieaced in diffarent localities on the 12 th or 13 th .
"The temperatu"e underwent considerable and rapid changes, but the avarage for the weol did not differ materially from the normal value; in most of the northern districts it was slightly below, and in the south a little above the mean. The highest of the maxima were recorded on the lith, when they ranged from \(56^{\circ}\) in ' Ssotland, W.,' to \(49^{\circ}\) in - England, N.E.' The lowest of the minima were registered either on the 8th or 11 th, and ranged from \(20^{\circ}\) in 'England, S..' and \(23^{\circ}\) in 'Ireland, N., Scotland, N., and England, E." to \(29^{\circ}\) in 'Scotland, W. and England, N.W: In the 'Channel Islands ' the thermometer did not fall below \(40^{\circ}\)
"The rainfall was rather leas than the mean in 'Scotland, Eagland, N.E., and the Channel Islands;' in all other districts, however, there was an excess.
'The bright sunshine somewhat exceeded the moen in Ireland, the greater part of Scotland, and the south and east of Eagland; but was just equal to or less than the mean in the other districts. The percentage ragiatered of the possible duration ranged from 29 in 'England, E."' and 27 in 'Eapland, S." to 12 in. Fagland, S.W., \(g\) in 'Scotland, Mon' and 7 in 'England, N.W. and the 'Channol Ialands."

Cultivation of Plants under Coloured Glasieg. - The Saptembar iusue of the Journal de la Societt Nationale d'Horticulture de France containe a nus giving the following al the reault of M. Zacharbwicz's recentexperimenti on the cultivation of forcad Strambercies under difiorant coloured glasses:-1ut. The fiaest and carlient fruit wat rained under ordinary glans. 2ad. Orange glane atimulated the vegetation, but was prejadicial to the quality, sizs, and earliness of the fruit. 3rd. Violet glast yielded a grast daal of fruit, but amall, inferior in quality, and not very early. 4th. Rod, blue, or green glasese proved detrimental to the vegetation of the plante exparimsuted upon.

A Drawing of a Model of a Blenheim Orange Apple, which, with four other, received the Banksian Silver Medal at the 0 atober meeting of the London Horticultaral Society in 1822, wae exhibited at the recent Oxford Caryanthemum and Frait Show by Mias Swank, niece to the late Profeanor Wrstwood, Walton Manor, Oxford. The drawing was accompanied by the following history of the origin of the Blenheim Orange Apple: "Mr. G. Kempster, who lived at the end of the lant centary at Woodatock, when a young man, ditcovered a plant growing in a crevice in the windowsill. Ho carefally removed and planted it. In due time it became a tree, and bore Applee, which were at firt called K9mputer Pippins, and which were so fine and of auch excellent flavour that they soon became famoun. In 1811, Mr. Whitmant, gardener to the Dake of Marlboroder, placed some on his Grace's table, and the Dake so highly approved of them that they were thenceforward known an the Blenheim Orange. The original tree was standing in 1826. Oa September 21, 1822, five Apples were gathered from it weighing from 15 oz , to 214 oz , and measaring from \(12 \frac{1}{5}\) to \(14 \frac{1}{2}\) incher in circamference. They were exhibited at the October meeting of the London Horticultaral Society in 1822, and the Banksian Silver Medal was awarded to them. A model was made of the largest of these five Applor, which came into the pomession of the late Profemor Wkstwood." Gardeners' Magazine.

\section*{Markets.}

\section*{COVENT GARDEN, December 19.}
[We cannot accopt any responsibility for the subjoined reports. They are furnished to as regularly every Thursday, by the kindness of eeveral of the principal salesman, who revise the list. and who are reaponitiole for the quotations. It must be remembered that these quotations do not represent the prices on any particular
day, but only the general averages for the woek preoeding day. but only the general averages for the woek preceding
the date of our report. The prices depend upon the quality of the samples, the supply in the mearkst, and the demand; and they may fluctuate, noc only from day to day, but often nereral times in one day. ED .]
Platta in Pots.-Averagn Wholegale Priogs.


Apples, Blenheim, p
Grapes, Gros Colmar, \(\qquad\)

- Gros Colmar, dod quality, p.r 1 b .
- Alicante, Iot
quality, p. 1 b .
-
\(16-20\)
\(10-13\)

Cobs, per 100 lb .
Ficus elastica, ench
Foliage planta, doz.
Hyacinths, per doz.
Lilium Harrisii, per
dozen pots
Marguerites Marguerites, p. doz. Malms, various, - specimens, ea \(\begin{array}{ll}8 & 0-120 \\ 8 & C-9\end{array}\) per 100 Lb. ... 300 0-35 0 chaol, each ... 3 0- 76 Arums, p. 12 bloomes
Axales, 12 sprays Arales, 12 sprays ... Bouvirdias, par bun. Carnitions 18 blma Chrysanthamums,
per 12 blooms Zucharis. per doxen Gardenias, per dor Gardonits, per dox Hacintis (coman)
12 sprayl...
Lagoria, per der.
blooms .o. .o. blooms Nrench, per
Lilanch .... Lilium Harriaii, do. Lily of the Valley Mar doz. spraye .o. Maidenhair Ferm Mer 12 bunches oin braches
Mignonette 12 bun.
Naroiwe Whites
Trench 12 bun. \(8 . d .8\).
\(40-80\)
0 Orchides:
Cattleya, 12 blms.d. d. s. d.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{9}{|l|}{\begin{tabular}{l}
4. Vequtables,-Aterage Weolrsalik Pmices. \\
s.d. s.d \\
s.d. A.d,
\end{tabular}} \\
\hline \multicolumn{9}{|l|}{\begin{tabular}{l}
Cauliflowers, p. crate \\
Tomatos:- \\
( 5 to 8 doz.) \\
... 10 0-17 0
\end{tabular}} \\
\hline \multicolumn{9}{|l|}{Mushrooms, per lb. 08 8-9 - ordinary ",} \\
\hline \multicolumn{9}{|l|}{\multirow[t]{2}{*}{\(\begin{array}{llll}\text { Cucumbers, per doz. } 80-18 & 0 & \text { Canary lands, per } \\ \text { Onions. Kng, cwt. } & 0-60\end{array}\)}} \\
\hline & & & & & & & & \\
\hline \multicolumn{9}{|l|}{} \\
\hline \multicolumn{9}{|c|}{Potatos.} \\
\hline \multicolumn{9}{|l|}{Trade quiet; supplies heavy. Snowdrope, T0s. to 90s.;} \\
\hline \multicolumn{9}{|l|}{Hebrons, 750 . to 85 s , ; Bruces, 458. to \(60 s_{0}\) : Black lands, 308 . to} \\
\hline \multicolumn{9}{|l|}{45. J. B. Thomas.} \\
\hline
\end{tabular}

\section*{SEEDS.}

Lompor: December 18.-Measrs. John Shaw \& Bons, Seed Morchanta, of Great Maze Pond. Borough, London, S.E. roport that as is usual towarta the close of the year businese in seeds ahrink just now to a very narrow compase. Quota tions all round are, in cossequence, without any noteworthy change. For white Clover seed, the tendency of values is downwards. Blue Peas and Haricot Beans are held for downwards. Blue Peas and haricot Beans are held for formor rates. The trade for bird seeds is without any opecial featare. Some 8carlet Hunner Beans are now offering on
rery tompting terms. Other articles at this holiday eenson very tompting terms. Other articles at thite seglected, call for no ccmment.

\section*{FRUITS AND VEGETABLES.}

Borovar: Dec. 17.-Quotations:-Savoys, 3s. \(6 d\). to bs. \(8 d\). pertally: Cabbuges. 2s. 6d. to 3s.do. ; Onions. 2s. 9d. to 3 s .6 d per bag; Horseradiab, 1s. to 1s. \(2 d\). per bundle; Apples. 2s. to 63. per bushel ; Chestouts, 6s. to 98 . per bag.

Spitaliteldis: Dec. 1\%.-Savoys, 2s. 6d to 3s. ©d. per tally; Greens, bunch, 1. to 18. 6d. per dozen; Turnips, 1s. to 1 s . \(6 d\). per dozen bunches; Cauliflowers, 4 s. to 68 . per tally; Sprouts, 1s. 3d. to 1s. 8d. per half-sieve; Scotch Kale, tally ; \$prouts, 1s. 3d. to 18. 8d. per half-sieve; Scotch Kale,
od, to 1s. per bushel; Turnip-tops, 1s. to 1s. 3 d . do.; Carrots, 9d, to 1s. per bushel ; Turnip-tops, 1s. to 1 s .3 d . do. ; Carrots,
2s. to 2 s . Rd. per dozen bunches; Tarnips, 25 s , to 30 s . per ton 2s. to 2s. Rd. per dozen bunches; Tnrnips, 25s. to 30 s. per ton;
Carrots, 22s, to 30 s . do. ; Leeks, 1s. to 1s. 6d. per dozen; Carrots, 22s, to 30s. do. : Leeks, 1s. to 1s. 6d. per dozen
Beetroot, 1s. to 1 s . 3 d . per bushel ; Ho seradish, 1s. to 1 s . 2 l Beetroot, 1s. to 1s. 3d. per bushel; Ho:seradish, 1s. to 1s.
par buadle; Apples, cooking. Deax Ans, 3s. to 3s. Bd. per bushel ; Northern Greening, 3s. to 3s. 6d. do.; Wellingtons, 34. \(6 \alpha_{0}\) to 4s. do. ; Apples, deseert, Blenheim, 4s. to 4s. ©d. per bushel; King Pippid, 4s. bd. to 5 s. do.
Stratromd, D c. 18.-Good supplien, but trade slow. Oullards, 1s, to 1s. Bd. per telly; Seroys, \(2 s\), to 3s. 6d. do. Greena, 6d. to 9d, per bag; do., 1s. to 1s. \(3 d_{\text {. per dozea }}\) Cauliflowers, 1s. to 1s. ©d. do. do . Ste ed, to 6s, per tally Scotch Kale, 6d. to 9d. per sieve; Brussels Sprouto, 18. \(3 d\). to 1s. 6d. per half-sieve; do, \(2 s\) to \(2 s .6 d\). per sieve; Beet root, 24 . to \(2 \mathrm{~s} 6 \%\). bag: Horseradish, 1 s . 1 d , to 1 s . 3 d . per bundle; Parsley, l. to 1s. \(6 d\). per dozen bundles; Turnips 1s. \(3 \alpha\) to 1 . \(6 \alpha\), per dozen bunches. do 35 s to 40 s per ton Carrots, household, 28s, to 32 s do : do, feeding 23 s to 28s, do. Mangels, 12s to 15s, do 8 . Oniovs, English, 30s. to 70 s . do. ; do., Dutch, 2 s .9 d . to 3 s . per bag; do, Port., 5s. 6d. to 7s. per case; Apples, English, cookert, 2s. 6d. to 4s. per bushel; do., dessert, 2s. \(6 d\). to \(4 s\) psp bushel: do., Nova Scotian, 12s. to 14s. per barrel; Pears, Engli h, 2s. 61. to 3s. 61. per buibel.
Farmigadon: Dec. 17. - Quotations: - Savjys, 4s. per tally; Cabbages, 2s. \(6 d_{\text {. do. ; bunch Greens, 1s. } 6 d . \text { per dozen }}\) bunchen; Carrots, 2s. do. ; Turnips, 2s. do.; Sprouts, 1s. 6 b. buachen; Carrots, \(2 s\). do. ; Turnips, 2s. do. ; Sprouts, 18. 6 b.
per half-bushel; Turnip-tops, 1s. per bushel; Leels, \(18.6 d\). per dozen: Onions, 4s. 6d. per cwt. bag (English); Beetroot, 1s. per dozen; Parsnips, 3s. per sack; Celery, \(9 s\). to 10 s. per dozen; Parsley, 1s. 3d. to 1s. 6d. per dozen buaches; Apples, Welliogtons, 4s. \(6 d\). per bushel; Blenheimes, 5s. do. ; Ribatons, 23s. per barrel; Baldwins, 18s. do.; Newtown Pippins, \(25 s\). do.; Greening?, 15s. do.; Grapes, best Englieh, 1s, per lb do., Almeire, 10s, per barrel: Chestnuts, 10s. per bag (best).

\section*{POTATOB.}

Bonovar: Drembar 17, - Quotations ranged from 35s to 80s. per ton.
Beitalyiklos: Ducembat 17.-Quotatione:-Sutton's Abundance, 5Js. to 60s: Main Crog Kidneys, 50s. to 70 s . Brices, 40s. to 60s. Imperators, \(\mathbf{5 5 \mathrm { s } .}\), to 万We ; Rosea, SOs. to 6bs.; Fidler's Calossus. 40s. to 60s. per tou.
Siratrond, Decenber 17.-Quotations:-Bruces, dart soil 35 s to 40 s, do., light woil, 40 s . to 50 s . Reading Giants, 40 s to 50 s. ; Gutton's 4 bundavce, E0s. to 60 s. per ton.
FlibrivgDox: Ducemase 19,-Quotations -Mainerop Kid neys, 75v, to 85s. Jeanaie Deans, do. : Laxtons, do ; Aband ance, \(70 s\), to 8 s .; Imperators, 65 s , to 70 s ; Bruces, 55 s , to 65".; Mignums, \(45 \mathrm{sin}^{2}\) to 50 s. per ton.
London Averages: Dec. 18.-Dunbar Regents, 90s. to 100 s . ; Snowdrope, 70 s. to \(90 \mathrm{s}\). ; Hebrous, 70s, to 90 s . Sutton"s Abundance, 55s. to 65s. ; Puritans, 50s. to 55s.; Regents, 60 s . to 705.; Magnama, 40s, to 50 s ; Imperators, 40 s . to \(50 \%\) per ton.

\section*{CORN.}

Averages. - Offcial statement of the average prices of British Corn, imperial measure (qr.), for the weel onding December 14, and for the comremponding period in the previon
 1894: Wheat. 20. 10d, Bariey, 21., bd. ; Oaty, 14. 2d.

\section*{HAY.}

Averages. The following are the averages of the prices at the metropolitan markets daring the past week:-Clover, prime, 80s. to \(95 \mathrm{s}\). ; do., inferior, 50s. to 70 c . i hay, best
 893. 6d. : and straw, 20s. to 42s. par load.

\section*{ENQUIRIES.}
"He that quertioneth mueh thall hagra mueh." -Bacos.
Perfecrion Tomato - A correnpondent。"S.J. B." writes:-"I have two hot-houses, 100 feet by 14 feet, with 5 feet br 3 feet beds down each side, and path between. I intend to crop these two houses with Tomatos. Piease tell me hiv I am to plant them in the bedn ( 5 feet by 3 feet). 0 a to obtain the greatest number of plants, yet not to overcrowd, so as to get bad cropa? Tomatos to be grown on single-rod system. Ought I not to be able to get five row in the bed ( 5 feet by 3 feet)?

Apples.- Will nome of our correnpondenta oblige "M. E." with the names of varietie of Apples which bloom late; and also lindly afford him any information concerning the times of flowering of Apple trees on grasa and on bare soil; or of methods of retarding the flowering beyond the nataral time, by keeping the grouad above the roots protected from March to May in some manner from sucheat


Azalea indica Leaves Browned: \(P\). \& \(S\). We should appose that the insects (thrip and redspider) were allowed to infest the plant in great numbere, and then that very heavy fomigation was resorted to, to rid it of them; or that the plant was dipped in over-atrong insecticide of somekind. The injury ia not likely to deatroy the plant, but it will cause the lose of the flower-bude.
Books: W. B. E \& F. Sjon, Booksellere, Charing Cios, Londor, W.C - H. Oram \& Sons. The Tomato, with Up to date Cultural Directions, by W. Iggalden. (Pablished at the office of Journal of Horticulture, 171, Fleet Street, London, E C )Young Gardener-How Plants Grow, Plant Life, Frwit Manual, by Dr, R. Hngg; Manual of Stove and Greenhouse Plants, by B. S. Wiliame; The Orchid Growers' Manual, by B. S. Willism: Horticultural Buildings, by Eawken; My Gardener, by H. W. Ward; Artificial Manures; How to Lay Out a Garden, by W. Kemp.

\section*{Chiswick Carol-}

What! Chiswick without Barron,
And Barron without Chiswick?
As well have a doctor
Without any phytic!
Chickets: W.W.C. Sprinkle powdered camphor or carbolic acid in their rune. If you can sink goodsized flowerpotr, having a piece of tile or blate over the moutb, and let the bottom of the pot be uppermats and level with the floor of the glasshouse you will hare a capital trap; and if some kind of odorous bait be placed at the bottom, so much the better. Crickete, having a penchant for exploring holer, will deacend by hundreds into these trap*, and not being able to get out will perisb.
English Therer Tress: T.D. G. The principal kinds planted are Qaercus mesilitiora, CF pedunculsta, Fagus sylvatics, Ulmas campestris; U. glabra, U. montana, Carpinus Betalus, Castanea vecta, Acer campestre, A. platanoides. Alsua glutinosap, Betala alba and B. nigra; Fraxinas exceltior, Juglans nigra, J. regia, Pupulas alba, P. canadenni, P. tremule, Salix alba, and others; Tilia valgaris, T. americana, and othert. Among Conifers, Pious aylvestrin*, P. Laricic*, Po austriaca*, P. Cembra, P. Pinaster*, Abies balamea*, Traga canadensis*, Psendotanga Duglasi*, Picea excela**, Abies pichta, A. grandiz, Cryptomeria japonics, Capressus nookatensir, Juniperua virginiana*, Larix europas*, Sequoia emperviren?, S. gigentes, Taxodiam disticham, Libocsdras decurren. Taose baving an ateriak attached are the commonly planted Conifert, but there is no reason why the others hould not be geaerally cultivated, being quick growers and the wood
asefal for many parposes. There are numeroas apecies of Pinus which might also be planted with advantage in these iolande.
Names of Plants: Correspondents not answered in this issus are requested to consult the next number.Mr. Cowles, Newport, U.S.A. The charactera agree with a plant in Herb. Kew, from Herb. T. Moore, marked Lomaria pibbs, crossed with Blechnom brailiense, Ryval Horticaltaral Society's Garden, Chiswick, 1876 - L. B. G. Cypripedium \(\times\) Eirmannianum (Harriniannm \(\times\) Boxallii. - Wishes to Know. Your apecimen of Calanthe, jadging by your description, is one of the best.-G.B. 1, Maxillaria rabescens ; 2, Croton Weirmannii ; 3, C. Johannia; 4. Dracæoa ferrea: 5, Diacæа regale ; 6, Dracana amabilis.
Obchid Collectina: R. S. Of course, it it beset with dangers of many kinde. We would advise you to read the Orchid Seekers, by Anhmore Ranana and Frederick Boyle; and About Orchids, by F. Boyle, pablished in 1894 by Cbapman \& Hall. Both books were reviewed in our insat for January 13, 1894, p. 47. You will find mach information about Orchid collecting and collectora at ppo. 335,422 , and 487 in the present volume of the Gardeners' Chronicle.
Peach Ro,ts: C. L. C. Very likely the knobs are the reault of some injary by a digging-fork or by frequently palling op the suckern. The knobs are often clacters of buds ready to atart into growth when circametances are favourable.
Retarding of Lily of the Valley Roors: Constant Reader and W. G. This is doue by large cultivators of the plant, bat the exact method we are unacquainted with. The roots are maintained at a low \(t \in m\) peratare (not frozen) all throagh the sammer and autumn-probably in the ac-called cold atorage places.


Fig. 128 -strawberry - Leay furgus
(SPHerella FRAGARIE).

Strawberry Leaver Diseased: L.C. The Straw-berry-leaf fungus which may be kept in check by spraying with Bordeaux Mixture.

Communications Received. - C. Hewitt. Altrincham. C. K. F. L. -C. L. C.-W. T. \& Sons.-F. W. B.-C. B. F. W. M. - A. H. K.-L. C.-M. D, best thanks.-W. Day. -G. Hansen, California.-B. \& S. - J. B. Utrecht. - W. W.
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photographs, Spechmens Reoeived.-F. W. B., with many thanke-T. C. A., Geelong.

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THE

\title{
Gardeners' Chronicle
}

FOR
JANUARY 4, 1896,

CONTAIN AS A SUPPLEMENT

\title{
SHEET ALMANAC.
}

As a large Extra Circulation of this Number is guaranteed, it will be a very valuable medium for Advertisements.

ADVERTISERS DESIROUS OF SEGURING SPAGE IN THIS NUMBER are requested to communicate with "The Publisher" not later than MONDAY, December 30, 1895.

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C. Tissot et Cie, 31, Rue des Bourdonnais, Paris-Florists Requisites
AS CaRTER \& Co.。237, 238, and 97, High Holborn, LondonGeneral Vegetab'e and Flower Seeds.
Veitch \& Eons, Royal Exotic Nursery, King's Road, Chet ea-General seed and Garden Implements.
ments sons, Wordsley, Stourbridge-Seeds and Imple ments.
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\section*{GERDENING APPOINTMENTS.}

Mr George Mulitins, late of Farnborough Hill Gardens, Farnborough, Hants, as Head Gardener to Lady Henry Somprset. The Priory Gardens, Reigate, Surrey.
Thomas Bolton, late Dleasure-ground Foreman at Field, as Gardener to the EARL of TANKERVILLE, Coombe Knd, Kingston on-Thames.
Mr. Arthur Metcale, for a period of nearly two jeara Foreman in the Gardens of the Marquis of EXETER, Burghley House, Stamford, succeeds to the post held by
the late Mr. R. GILBERT. G MrTCHI.
Mr. G. Mitchison, for the last 15 years Head Gardener at Perry Hall, Birmingham, as Head Gardener
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Mr. William King, until lately gardener at Chiltley, Liphook, as
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\section*{WANT PLACES. \\ TO GARDENERS AND OTHERB SEEKING SITUATIONS. \\ - Advertisers are cautioned against having letters addressed to initials at Post-offices, as all Letters 80 addressed are opened by the authorities and returned to the sender.}

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\section*{CONTENTS.}

Berlin Induetrial Exhibition, 1896
British Columbia, fruit
and Potato-growing in
Bulbs in water
Chrysanthemum
rence Watson
Cypripedium with peloriated sepals
Evelyn, Jno.
Eventa of the closing
Flowers as food
Flowers, grasses and leaves dried, for winter Fruit cultivation in New Gardoners'
Gardeners' Royal Benevolent Institution
Grafting, a curious case of natural and Gros Maroe Limes, species and varie ties of
 gening of the fiowers ings-
Cattleya labiata, albino
varieties of
Varieties of \(\ldots i l\)
Scuticaria steelii
the Royal Gardeners' Potato cultur our Rabbit-proof plants the
768 Societien-
York Florists deners 775

Plants, new or noteLeelia \(\times\) Finckenian var. Schrodere Poultry, our ark Royal Horticultural society, re-organising

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Fational Amateur Gar Surveyors' Institutio Surveyors' Institution ...
Synandrospadir vermitoxicus ... ... ... 770 Treer, quantity of 68 Can nursery one slants and flowers at Märow, Courge Patate...
Week's work theFlower garien, the Fruits under glass Hardy fruit garden Kitchen garden, the Orchid houses, the Plants under glass

\section*{ILLUBTRATION8.}
ypripedum ingae, w
Tarrow, Vegetable. "the Pataite
Sayes Court, the residence of Jno. Evelyn at Deptiord Sgnandroopadiz vermitoxicus

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\section*{MONDAT NEXT.}

About 80,000 Bags of Dutch Buibs, Liliums, and in large lots.
a Importation of Lilium Auratum, just recelved from Japan, in fine order.
30,000 Best Crowns of Lily of the Valley, 5.000 Spirma, ,000 South Alican piendid Collection
A Splendid Collection of Border Planta, incinding
 above by AUCTION, at his Great Rooms, 38, King Street, Covent Gardea, on MONDAY NEXT. December 30, at hall-paet \(120^{\circ} \mathrm{Clock}\) precisely.

On view morning of Sale, and Catalogues had.

\section*{Wedresday Wext}

Choice named Standard and Dwarf Ruses from an Eagliah grower, incluring many of the best. Pgramid and dwart PLTMQ PEACHES NECTARTNES CHRRRIES, 20 . DRCOBATIVE SHRUBS, TLOWHRING TREES, and́ various plants, surplus from an English nursery. hollyaocks, and other border plants. A great variety of DUTCH BULBS, LILIUMS, and various varipts.
MR. J. C. STEVENS will SELL the above Cove by AUCTION, at his Great Rooma, 38, King Street, at half-past 12 oclock precisely.

On view morning of Sale, and Catalogues had. Thursday Next.
By order of Messrs. W. L. Lewi \& Co., Southgate, N HIGHLY IMPORTANT SALE O IMPORTED ORCHIDS. Without the least Reserve, comprisingCATTLEEA HABRISONE VIOLACEA, in grand condition, ONCIDIUM MARSHALTEAN
ONCIDIUM MARSHALITANUM, amongst which will be FCTDITM CBTSPUM
CIDITM CRISPUM GRANDIFLORUM, including some
SOPHRONITIS GRANDIFLORA, \&e.
A Iso RSTABLISEED ORCEIDS, comprising-
ONCIDIUM VARTCOSUM, O. TIGRINUM, O. CUOULATUM, ODONTOGLOSSUM PESCATORET, O. CRISPUM (best Pacho type), \&c, all in vigorous health.
MR. J. C. STEVENS will SELL the above by Garden. W.C. on THURSDAX MEXR., Jemonty 9, at hinlfpast \(120^{\prime}\) Clock precisely.

FRIDAY, JANUARY 3, 1896.

\section*{SALE OF ORCHIDS.}

By order of Mesgrs. F. Shutder \& Co. St. Albans.
A fine Consignment of
DENDBOBIUM NOBILE, from the Dokels Mountains, probably the finest of all the ty pers yet offored. Gathered in the high unexplored mountain of Dokela, far beyood distinct-looking plants, found growing wath a variety D. densiforum; supert varieties. Confidently erpected D. densiforum, supert varieties. Confiently expected, than any other consignment that has ever reached
Rurope. now offered, and is unequalled for size, fragrance, and brightnese of bloseom. It is one of the most attractive of all the winter-blooming Orehide.
ODONTOGLOSSUM CERVANTESII.-A aplendid compeniou lor O. Rossii majus. The plants come from the same locality which betore has yielded decorum, roseum, membranaceum, dc.
LAELIA ALBIDA, a lovely compact-growing, winter-flowering species, 8 to 10 -flowered racemes of fragrant bloseoms.
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OXPRIPEDIUM BELLATULUM, the large-flowered deep
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MESSRS. PROTHEROE AND MORRIS at their Contral Sale Rooms, 67 and 68, Cheapside, London. \(120^{\circ} \mathrm{Clock}\)

On view morning of Sale, and Catalogues had.
THE LOST CYPRIPEDIUM 18 tere voble ind mantificert CYPRIPEDIUM MASTERSIANIM, Of which not more than a doxen plants exist in cultivation. We thall Offer at
MESSRS. PROTHEROE AND MORRIS' FRIDAX, JANUARY 17, 1896, 5000 PLANTS,
In saperb condition, without any fleserve.

Tuesday NeIt-December 31.
Grent Snle of 790 cases of Japanese Lilies, comprising:\(34,312 \mathrm{LILIUM}\) AURATUM.

8

11SPECZOSUM ALBUM. RUBRUM. LON゙GIELORUM. KRAMERI. KIGRINUM SPLENDENS.
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Also an Importation direct from Japan consisting of 250 hemerocallis aurantiaca major.
Collected at areat expense, and all in good condition; also 300 AZALEA MOLLIS, 200 CAMELLIAS and A. INDICA from Belginm ; a choice assortment of GREENHOUSE PLANTS FEKNS, \&e.; 200 Dwarf ROSEs, Hardy BORDER PLANT and BULBS, Hardy PERENNIALS, CARNATIONS, and 200
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TUESDAY NEXT, DECEMBER 31, at 12. 425,000 FOREST TREES,
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And on TEURSDAY, JANUARY 2, at 10.30 a.m.
The GREENHOUSE PLANTS, viz, 2050 Hyacinths an other Bulb Plants: 500 Arum Lilies, 300 Primulas, Azaless, Camellias, Hydrangeas, and Solanums, . 25 young Vines, 100 Ferns, 300 Geraniums, Fuchsias, \&c 10 months; 7500 Calceolarias, Fuchsias, and other Cut tings 1500 Geranium Plants, 150 Tomatos, 6 to 12 inches;
8000 Cabbage and Cauliflower Plants, 280 Marie Louise 8000 Cabbage

WHITTINGTON NURSERY
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WORLEYII. 12 to 14 feet.
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THE

\section*{Gardenerg ( Chronidle.}

\author{
SATURDAY, DECEMBER 28, 1895.
}

PRESERVED FLOWERS, GRASSES and Leaves for winter.
BUT few flowers are preserved, beoanse so D few present that thickness of petal whioh enables them to undergo the prooess of drying and dyeing when necessary. Chief among them is the Helichrysum, a flower that needs bat little dyeing, as if cut at the proper season, and carefully dried, it retains a good deal of its clearness of tint. Amateurs who preserve some blooms, and are desirous they should possess a greater brillianoe, may employ Judson's dyes, and in the same way give to their dried grasses a decorative value, albeit unnatural. Germany supplies the great bulk of the dried flowers which come into the London markets in autumn.

Acroclinium represents but a small bulk the petals lack fibre; they are thus of an evanescent character. The same applie to Rhodanthe. The most valued is the pretty Helichrysum vestitum from the Cape, known an the Cape flower. Some say it is not a Heliohrysum, but no one disputes its usefulness. The Cape flower comes over in very large balk, very largely undyed, though a few appear in atriking colours; they have proved especially valuable for charch decorations. Fairy flowers are made from the silken down taken from some Asclepiad, and reversed by tying closely together the upper portions of the silken hairs, they then form a perfect ball. These are collected by children in certain districts, largely in the northern parts of Canada, and are known as milk-flower balls. They, too, are maoh employed in ohnrch decoration, and for the better-class bouquet work.

The homaly Gnaphalium comes to us from France, where they are much grown and employed for wreaths and funereal ceremonies; they are bleached and then gaudily dyed, but few retaining the natural tint of ivory whiteness. A few years ago they were our only dyed flower. Attempts have been made to preserve other flowers, but most of them have proved too fragile to be of permanent service.

Grasues are largely employed, and some of the finer examples of recent introdaction are really superb. Many of the most popular grasses come from Germany. Eome take the dye without the preliminary of bleaching; some have to be bleached. Many are undjed, retaining their peouliar tints. Agrostis is one but now very little used. The Oat genus supplies many; the higher forms which find a plaoe among our ornamental grasses are not very useful, exoept in buoches. Of the common Oats some large imported types appear the most useful; s bigeared Oat comes from the northern parts of Italy, and when fully expanded, the husk oomes away,
and a greater decorative value is therebyacquired; the Oat takes the dye well. Some of the rich bronzy-dyed heads are very handsome. Biomus is perhaps the most largely used generally of any grass, being so pretty and useful, and the Quaking-grass (Briza) is always very popular ; so are the smaller forms of Chloris.
The popalar taste goes ont to the tall and stately grasses such as the Congo or Niggergrass, a reed-like type growing in the swamps of the Congo, the flowers in small bonches making up large ball bouquets. The Elephant-grass is in its oharming silken appearanice one of the appearance of berries [?]; it is very useful for the most attractive in the form of its infloresoence; tall-growing form with long stems from the Gold Coast, assooisting well with the preceding. Eulalia is also very popular, and is imported from Florida, a beautiful tufty group, in long sprays, eight or nine of these sprays springing at intervals from the stem, and it mixes well with anything dyed or nataral. Erianthus is another popular grass, whioh is largely grown in Italy, and has a plumed head like that of the Pampas-grass, many of them as large as the smaller-sized plumes of the Pampas, but to be obtained at a considerably less cost. Lagurns ovatus, the Hare's-tail Grass, mostly from Germany, is a pretty one for mixing, bat a troublesome grass to store by dealers, for the mice find their way to it, tear the heads to pieces, probably in search of seeds, and baild nests for their young with the fluffy portions.
Uniola is one of the most nseful of the larger grasses, the heads on long stems, and a mass of spikelet-most useful, whether in its natural tint or ooloured. This grasis comel from the swamps of the Mississippi river.
But the Pampas-grass commands the largest sale. Messrb. Oaman \& Co., of Commeroial Street, E., get through in a season from 130,000 to 150,000 heads, out of that number dyeing a very large proportion. It is in the greatest demand, which is, perhaps, not surprising when its extremely showy oharacter is considered. Enormoas quantities come from different parts of America, largely from St. Louis in the West, and from the North also. A fine companion is found in the Uva-grass, with very handsome feathery plumes on long stems, most valuable for the deooration of halls, and the corners and nooks of large rooms. The plumes come from Brazil.
A magnificent new grass is found in what is termed the "Paradise Plume," a recent introduction, the plume somewhat resembling that of the Pampas, more divided, and of greater length. This is considered the most elegant of all the long grasses which are now imported.
Palm leaves of various kinds, imported in a dried form from Germany, British Honduras, \&o., are received perfectly flat and rigid, and so become suitable for forming backgrounds to large bouquets; Areca, Chamædora, Latania, Cyeas, \&c., are the leading forms. The leaves of Cycas are hard and durable, but the jellow tint is rendered green by dreing. Phonix comes over with the leaflets compressed firmly against the main rib; they are opened out, pot through a certain process, and curled, and are strikingly handsome. Bulrushes come from many parts of the conntry, and in different varieties; the main thing is to colleot them before they are too far advanced, or the top will burst, and beoome disfigured.

Sea-weeds are largely employed, and are regarded as among the prottiest agents used in making up decorationi. In their nataral con-
dition the appearance is somewhat repulsive, and the smell offensive, bai when put through a certain prooess, and dried in various delicate shades, they are most useful. They are dropped into vases, to form the groundwork of bouquets, \&c. These plants are oolleoted in various places along the coast of Pennsylvania.
But quite a new development in the utilisation of these dried leaves of Palms, \&c., has come to the fore of late, namely in the renewing of these sun-burnt leaves so that they again become a vivid green, and then building them up into stately plants so like to nature as to pazzle oasual observers. The leaves are passed through a certain process to render the material sapple, they are then ironed, coloured, and fixed to oleverlyimitated trunks, and so a fine speoimen Latania, Areoa, Phoenix, Cyeas, \&c., is built up in a short time, apparently so full of life and so perfect in health, that it is not surprising that these artistic forms fashioned with singular fidelity to nature are well adapted for ornamental groups, filling ansightly corners, and for furnishing entranoe-halls, lobbies, stairoases, \&o. In hotels and restaurants they prove partioularly valuable -they do not fade, are proof against excessive heat and cold, require but little attention, and are supplied either with the leaves permanently fastened to the stem, or so fitted that they oan be readily removed for cleaning, for whioh parpose a damp sponge will be found effectual. In this form the stems are provided with the necessary apertures in whioh to insert the leaf-stalks. Several very faithfal counterparts of Dracæna australis, Thrinax parvifolia, Phoenix daotylifera, Cyoas revoluta, and others, are on view, and seeing that they can be parohased at a considerably less post than living plants, it is not to be wondered at they are becoming much in demand. Messrs. Osman \& Co. are foremost in introducing novelties, and they are to be complimented upon this latest addition to their extensive display. R.D. TThe botanioal details of some of these plants require investigation. The names given above are mostly trade-names. Ed. 7

\section*{New or Noteworthy Plants.}

LeLIA \(\times\) FINCKENIANA VAR SCHRODERA, nero nat. hyb. (L. anceps alba \(\times\) L. albida).
Thes type apecimen which bore nome rememblance to L . ancep: Dawsoni, even to the parple marks on the iide-lobet of the lip and the crimson blotch on its front lobe, was illustrated in the Gardeners' Chronicle, December 30, 1893, p. 804. The plant more nearly reaemblea a strong \(L\), albida in ita growth, and in the form of its labellam, whose aide lober do not clip the colamn. It bears evident traces of that species, and contequently there is little doubt that the parentage impnted to it is correct. And now a beautifal pure white form, with the exception of a few thin purple lines at the base of the lip, has appeared in the collection of Baron Schroder at The Dell, Egham, and form a fitting abject to name in compliment to Baroness Schroder, who, like her hubband, take: a keen interest in Orchida. L. \(\times\) Finckeniana var. Schrodero ir, in every reapect, aimilar to the original planf, except that it has pure white flowers, and no crimon bloteh on the lip. James O'Brien.

\section*{Orchid Notes akd Gleanimas.}

\section*{SCUTICARIA STEELIL.}

Foi a period of about four week we have hed this apecies of Orchid in flower. There are aeveral poenliaritie noticeable in the plant not observed in

Orchid generally. It blooms at the dullest time of the year, it fragrance is delicious, and, lantly, the flexible leaven, 3 to 4 feet long, having the thickneas of a goonequill, are aingular-looking. Oar aptcimen has two very short flower-acaper, each carrying three flowers of about 3 inchen in diameter. The epala and petale are of an oval form, and of a very fine soft yellow colonr, blotchad with browninh-purple: the labellam is three-lobed, and of a cofter yellow tint than the petals. As the plant shows a few of these splendid flowers every year, we think it is doing well. The plant is fized to a piece of cork, with sphagaum and peat placed about the rootr, and is hanging near the glase. Scaticaria Steelii was imported into Earope in 1836 from Brazil and Sarinam. It is a specien worth adding to any collection of Orchids. J. \(\mathcal{K} \cdot B\)., Utrecht.

\section*{Cattleya labiata-albinos.}

Among the tens of thousande of Cattleya labiata original type, introduced within the latt few years, comparatively few albinos heve been seen; indeed, white Hower of any pecien, of which the typical form is coloured, are rare indeed, and yet we do get an occasional white, one in C. Mossix, in C. Trianæi, in C. Mendeli, in C. Gaskelliana, even in C. apperbum, and in C. Aucklandiz, and some other apecie and aub-apecies. It is pleasing to see, after all these year of waiting for C. labiata, that we have got a aperabundance of it, and amongat the lot have come everal with white flowers. Oae of the beat that has come under my cogniaance is now in flower in the very choice collection of E. S. Ball, Esq, of Earlacourt, Bowden (gr., Mr. Alezander Hay). It is a fair-nized flower, with eepal and petals pare white, without a shade of colour, as I examined it with the eyen of a severe acrutineer. The lip is also white, with the exception of a momewhat irregular lemon-coloured blotch towards the base of the column. The column is also white, and the lobes of the upper portion of the labelkim are folded back, showing it fally exposed. The lip is more apoon ohaped than circular, like the typical form in outline, and the whole flower is chaste and beantiful. There are two flower on the plant apringing from the labiata typical aheath, and the plant is atrong, having five leafy bulby. It is one from an importation gathered by the collector, who asw it in flower, and labelled it; and a credit it is to him, for it has turned out in every respect according to the description sent home, that variety flowering for the first time in this conntry.

In thim collection alno is another albino, having the amme purity of aepale and petsls, bat with the lower extremity of the lip flashed and lined with the softeat sheen of pink. This, on the white ground surrounding it, and contrasting with the white segment, maken a beantiful flower, somewhat like the one exhibited by Mr. Measures before the Orchid Committee. This one is dedicated to Mr. Ball's consort, and bears the name of C. labiata alba Ballw. It differ from the white Cooksoni in having white round the labellam, Cookeoni being aolid, beautiful cerise lip, with by far the bet formed white sepals and petale of any yet aeen. J. A.

\section*{FLOWERS AS FOOD.}

In this country, with atuodance of cheap food, we are astiafied with flowern for decoration or ornament to our tables, but in many foreiga countries they absolutely serve as food. It is rarely that we find the corolla of a plant werving any other purpose than as a temporary protection for the reproductive organs within. Bat for a flower to secrete more than half it weight of augar, and thu: become an article of economic value, and even of commerce, is remarkable. Of this, however, we have an instance in the flowers of the Bassias of India.
Mere fugitive atructure for the mont part, their transitory purpose precludes the plant wasting upon them aos of itw atore of reverve materials. In Iauia, the young flowers of the Banans are regalarly eater, and in China they are pickled in vinegar. Precesyod Mahica, or Mowhara, foweri constitato an important
article of food to the aboriginal triben of India: The fleshy now-white flowers are produced in enormous quantities in March and April. They fall off and cover the ground benesth the treea, and are gathered eagerly by the native during the fowering aeaon, and eaten either raw or cooked. A single tree will yield many hundred-weight of corollas; these are eaten, as a rulp, once or twice a day by the poorer classes of the wild tribes of central India, and in parts of Bombay, Rajpootana, and Bengal. In Moonghay, mouth of the Gangen, there are about one million Bassia trees, so that the yield of flowers there annually cannot be far short of 100,000 tons.
The blomams of another apecier, Bassia longi-
in Egypt is from a hard conuerve of Violets made by pounding the flowerf, and then boiling them with angar. This Violet aherbet is of a green colour, and is called "the grand Signior's aherbet." Tho petals of flowers are much uaed in Roumania, in flavouring preserves; Violete, Lime flowert, and Rose petals are especially used.

Having regard to their flavour, delicate odoury, and agreeable appearance, the variety of confitures made there is almost infinite.
The flowers of Melianthus major are so full of honey that the natives of the Cape Colony, where the plante grow wild, obtain it for food by thaking the brancher, when it fall, in a heavy shower.


Fig. 129.- CYPRIPBDIUM insigne: With the upper and lower sepals amilarly spotid.
folis, are employed in a mimilar manner by the native of Mytore and Malabar, where it abounda; they are either dried and roasted, and then eaten, or braised and boiled to a jelly. The dried amall redpinkiah flowers of the Calligonam polygonoiden, known in India se "phogalli," are eaten by the poorer clases, made into bread, and cooked with ghi (a fluid butter), or caten separately with ast and condimente. The flowers having fallen off, are awept up from the zround, and aued largely an food. The flowers fill the air with a pleasant odour, as of over-ripe Strawberrien. On apalyais they are found to contain about 46 per cent. of sugar, and 167 of albuminoid.

The Romane bad a wine made of Violet flowers, and thene flowers are still uned in Turkey in the propliation cf therbets. The mont enteemed aherbet

The blosems of the Shaddock are used for flavouring wweetmeats. The calyces or flowar-bracts of the Roselle or Indian Sorre), as they ripen become Glesby, and being of a plessant acid tnate, are mado into tarte and jellies in India. Roae-bude are eaten by the ladies of Arabia, boiled in angar; and made into a preserve.

In Chins also dried Roses are ased as a condiment. At Grasse in France, all the old and atale Violets are diaposed of, chiefly to manafactarers of confections, who ateam and coat them pretty thickly with flaked ugar, and then sell the confections at a high price as "confitures of Violetr."
The beautiful bright red flowern of Qumaia amona are valued in Jamaica for their atomachic properties infused in wive or water; evary part of the tree beiog bitter. The flowers of apecies of Lily. Hemero-
callis graminea and fulva, and Liliam Thunbergi when dried, constitate one of the choicent delicacies of the Chinese kitchen. They are ured to sesson dishes, ragouts \&c. There is a considerable trade in thene Lily flowern at the different Chinese treaty ports, amounting in some instances to 73,000 ewt., as at Chinkiang in 1893. The ports in which the commerce is chiefly carried on are Hankow, Chinkiang, Shanghai, and Wychow. In \(1890,5400 \mathrm{cwt}\) 。 of these Lily flowers were sent from Hong Kong to Macao. These flowers, plucked shortly before blooming, are grown in many provinces of China: those from Shantung and Honan are eapecially eateemed. When cooked as a vegetable, they have an agreeable odouriand aweet tante. They are much uned in the ascrificer offered to ancestore by the Chinese.
The aromatic apice, Cloven, are the dried calyces or flower-buda of Carophyllan aromaticus. The petale of the flowers of Anona wenegalensis are used on the Niger for flavouring dishes. The Turks prepare a cooling drink from the flowers of Nuphar Inter.
Another use of flowers is in the form of anffron, the dried atigmas of the Crocus, which has been highly prized from a remote period as a condiment. Although not much used here for colouring and flavouring food, it is largely employed in India.
The imports of these were 339 cwt . in the financial year ending Marcb, 1892, valued at \(£ 60,272\); and in \(1894,317 \mathrm{cwt}\)., value \(£ 56,014\). The value of the import thum often exceed \(£ 75,000\). The atigmas are the only uneful product of the flower, the reat being wate, and of these it takes some 70,000 to produce a pound of afffon. Saffion is largely grown in France, Spaiv, Italy, Germany, and other parts of Earope, and is also produced in some parts of Avia, Chins, Japap, and Tanis. It in used by "liquoristes" and confectionery, and alao to colour cheene and batter in Europe. Saffron-cake is a pastry coloured and flavoured with saffron,
The capers used at, our tables are the flower-bude of Capparis spinoza, employed as a pickle in vinegar, or of Zygophyllum Fabago, which latter are occasionslly aubstituted for them, Another anbatitute is the unripe fruit of the garden Nasturtiam (Troprolum majue). About two million pound of capers are collected annually in the south of Earope. Primroses are excellent in slad. Cowalip flowert fermented with sugar form a domestic wine, and are also used for a baleamic drink, known as "paigle tea." The dried blonsoma communicate an aromatic fracrance to home-made winet; resembling Mascatel.
The flowern of Meadow-wweet (Spirsa Ulmaria) are also used by wine merchant to improve the flavour of home-made wines. The youvg calyces of Dillenia apecioma are added to carries in India. The flower-bude of Bombax heptaphyllam are cooked with ealt and pepper, and eaten by the native of India. The flowera of Abutilon esculentam, an edible, at their apecific name implien. The fowert of the common Marigold were formerly used in brothe and soups, bat are now little regarded, P. L. Simmonds, F.L.S.

\section*{CYPRIPEDIUM WITH PELORIATED SEPALS.}

Pelonita, or the development in a regular and uniform manner of parte that sre uaully irregular, is most common in the corolle. In the calyx, or outer whorl of the flower, it in les common. Still, we do not know how better to clasaify the flower of Cypripedium insigne exhibited by Mr. Tate at a recent meeting of the Royal Horticultural Society. The appermost aingle aepal, and the lowermont which conaiats of two in combination, were both characterived by the white tip and the parplishbrown spota that uwally characterise the apper nepal only (nee fig. 129).

Other flowers on the same plant showed intermediate condition, and it will be interenting in the future to note whether all the flower will anume the characteriatic coloration and apotting. Should thoy do 40 , the gain will be great.

\section*{OUR POULTRY \\ By Harbigon Weir. \\ (Copyright) \\ (Continued from p. 489.)}

Theras are many more varieties of French fowls besides thone mentioned, but an table-fowla none anporior, and many not so good; mont have "a halfbred look" boot them, anch as the Faverolles, La Brese, and others. Some of the best are a black breed that I saw at St. Serran some time ago; but these were far excelled by our own Dorking, the old Kont, Sassex, and Surrey breede. I do not mean thowe now reared in these connties for market purposet, but thone no carafully bred and tended nome forty yeart since, and which may be again reprodaced by careful matiog and selection and ae carefully avoiding any contact or mixture with the Shanghai or Cochin, or what is termed the Bramah ; all these are grone feeders, large-boned, and carry more offal than any of the Earopean varieties. And yet for all this, moot of the mongrel-bred now breeds generally have a Cochin or Axiatic basias, for the one reason-because they look bigger and heavier, with their large bones, fluffy featherg, and fall round abdomen. Still I am hopeful that the general public is being educated, though alowly, as to what is really a good table-fowl. It is, indeed, antprising with what persistency even poaltrykeepers cling to the coarae, large, ill-shaped mongrel, in preference to thone of almost a perfect aymmetry, and of high quality, with an even diatribation of flesh and fat on the breat and without an undue quantity of inward, and therefore, as a rale, wasted fat.
In the beat Kent, Sussex, and Surrey ahort, whitelegged fowls, of medinm weight there in generally great excellence, and the short-legged, aturdy old Eaglish game fowl provides the perfection of a moderate-sized bird, fatting eveniy, fall of fleoh of the mont delicate Aavoar, with a ninenem of tianae unaurpassed by any other. And of these the white legged, black-breasted rede are deemed to hold their own againat all othere. The mach-vanated Indian gamp, though somewhat larger, is by no mosins so good, acarcely ever fatting on the breant, having also more abdominal fat, and with heavier and larger boner, besidee which they are worse layers than any other breed, with the exception of the Malay. The old Eaglish game is again coming well to the front, and that it in rapidly rising in the public eatimation is abandantly proved by the very namerons entries at the late Poultry Show held at the Cryatal Palace.
Though averse to crose-breeding or crose-bred fowls as a rule-and this for the reason that some of the most noticeable kinde of the pure breeda are ao oxtremely good, this cronaing with others maot have a tendency to depreciate instead of enhancing those good qualitien which they already possens-atill, as there exiats the eraving for crousing which is, Ithink, mont peraicions, and one that is not to be found among the breeders of cattle or sheep when once the trae breeds can be got; therefore, it would be well to note some of the meny cromes that have been tried with more or lene ancesas.
Firat, there will be considered the king of fowle, the best of table-fowle, the old English white-legged game. Here you atart, an nearly as possible, with the perfection of a table-fowl, no part being out of dae proportion to the reat. Therefore, if a larger bird is wanted, the undoubted best and mout natural croun would be either the Dorking, or the old Kent, Sanex, and Sarrey. Hare you get size with quality, and at both are active, good rangers and foodreekers, the young will gain much of their living by their own exertions, besiden which, this exercite also errves to make them more mascular, hence more flesty, and even causes them to put on fat, and yet to keep in a healthy condition, anlike thome that are cooped and crammed.
Next to this erose is that of the Iadian (so-called) game with the Kent, \&ec, which prodaces a larger fowl, with a long, and generally a lean breast, the fibre of which in close, short, and somowhat dry, the fat generully being about the belly, with mueh
internal fat. I have known more than 2 i 1b, to be taken out of the inside of fowle of this crose when preparing them for the cook yet they reach the ideas of aome as what in a good table-fowl, being of a large size, and nice appearance to the general obnerver.

\section*{VEGETABLE MARROW}

Tir Vegetable Marrow, of which we give an illustration (6g. 130, p. 765), was obligingly went us under the name of Courge Patate by our honoured correnpondent M. Caarles Nandin, the Director of the Garden of Acclimatimation at the Villa Tharet, Antibes. The drawing gives an excellent idea of the size and form of the Marrow. The flesh is yellowish, very firm, and is "very good cooked." The plant is a climber, and prodaces abundance of fruit. It will, saya M. Naudin, succeed in England. We do not find the name in M, de Vilmorin's Les Plantes Potagères.

\section*{THE LIMES (TILIAS).}

Tere confuion which hat overtaken the nomenclature of nearly all the more popular hardy treen and shrabs is ehared to the full extent by the Limes. In the List of Hardy Trees and Shrubs insued from Kew in 1894, which, it is hoped, will become the accepted atandard of nomenclatare for this divition of cultivated plants, about twenty apecies and varieties divide between them nome seventy to eighty eynonyms, many of which are in carrent nse. In the hope that it may be of some help towards the adoption of a more uniform and correct naming of theae trees in Eaglish gardens and nurserien, I have, in the following noter, enamerated the pecies and most of the important varieties in cultivation in Britain, with a description of their more essential and distinctive charactery. Whilet the hybrids and intermediate forms which conneet several of the apecies are often puzzling to identify, the leading typen, with flowering and fruiting material at hand, are not difficult to diatinguish, and these, of course, are the mont important in the eatablishment of a aniform nomenclature.
Tilia ia a parely north temperate genu (not represented, howevar, in North India or Wentern North America). About fifteen speciem are known, eleven of which are in cultivation at Kew. Most of them are lofty trees producing a moft, white, and usefal timber. They have a tough inner bark from which, in the case of the North Earopean apecies, ropes and the well-known Bast mats are made. The leaver are alternate, uaually more or leas cordate in outline, and oblique at the base. They have a somewhat diatichous arrangement, and in joung trees there is frequently a flat, wall-tree-like arrangement of the branches. The flowert are alwaya of some thade of rellowish white, and fragrant; they are produced on a peduncle which for half ita length is united to the mid-rib of a membranous, pale or jellowish-green paraistent bract, from the middle of which it appears to apring. In the American apecies, ia T. argenten and T. petiolaris among the European apecies, and in T. Miqueliana and perhaps other Asiatic apecies, the stamens are joined to petal-like scales, which are absent in the other apecien. The fraite are amsll and nut-like, rarely larger than a small Pea, varying alightly in ahape from globose to ovoid.
As ornamental trees in Britain, the Earopean Limea have proved by far the mont valuable, being hardier and freer-growing than the American or Asiatic ones; one or two of the best of them, like dasyatyla (euchlora) and petiolaris, are not no much planted as they ought to be. They might, from conaideration of both beanty and variety, to nome extent, at any rate, replace the common Lime in gardent and parkt. All the Limes like a fairly rich and moist loam, bat they succeed better than many trees do ou poor moil, at is shown by those at Kow; in the latter cave, however, they are very auceptible to drought, and after a dry summer lose their foliage very early. They ere propagated by layers, suckern, and seed, and in the
case of special varieties, by grafte. They are aubject to the attack of various gall-making and other intects, mitee, red-Epider, \&c. Thera appears to be no practicable means of combating them in the case of large trees, but healthy trees seem to withetand the sttacke of most of them without eerions injary. A solation of soft-soap and petroleum would probably be effective on apscimens small enough for it to be applied. Few trees respond to the pruner'i hand more quickly than the Limes. The chief point is to obtain and keep a single erect leader, and as long as the top of the tres is within reach, all rival ones should ba stopped. Where the trees how a tendency to develop into too buthy and spreading a form, the side branches ahoald be shortened back, so as to force the tree upwards. With Limen it is easy to do thir, and yet retain the nataral and informal outline of the tree.
The following is a list of apecien and chief varietien, with the better-known aynonym:-

\section*{Europran.}
T. cordata, ayn. T. ulmifolia, T. parvifolia, T. microphylla.
T. valgaria, ayn. T. intermedia, T. europæa. var. caucasica, syn. T. intermedia var. cancasica.
T. platyphyllos, gyn. T. grandifolia, T. cordifolia, T. europæa.
var, asplenifolia, ayn. T. laciniata. var. aurantia, syn. T. europæs aurea. var, Blechiana. var. obliqua, syn. T. Beaumontii. var. oxjcarpa, syn. T. cordifolia, var. oxycarpa. var. tortuona. var. vitifolia, ayn. T. vitifolia.
T. argentea, ajn. T. tomentoas, T. alba.
T. petiolaria, ayn. T. alba pendula, T. argentea pendula, T. americana pendula.
T. danyityla, ayn. T. auchlora.

\section*{American.}
T. americana, syn. T. canadensic, T. glabra.
T. pabescens, ayn. T. americaus var. pabescens.
" " var. leptophylla.
T. heterophylla, syn. T. americana var, haterophylla.
T. mexicana (not in cultivation).
T. mandechurica.
T. Miqueliana.
T. cordata (same as Earopean species),
T. Henryana.
T. Oliveriana. \}not in cultivation.
T. Tuan.

The three cultivated American species are figured in Sargent's Silva of North America, t. 24-7.

\section*{Europran.}
T. cordata,-This Lime, which in now admitted to specific rank, is one of the three leading forms which formerly conatituted T. europma-a now obsolete name. It may be distinguished from the other two (T. platyphyllon and T. vulgaria) by the following characters: It is a mach maller tree; ite leaves are maller and glabroas, with the exception of tult of pubescence in the axile of the nerven on the lower aurface; lastly, it flowera later in the aeason than the other two. It is found wild in Britain, although sparingly; of thene three apecies this has the most northerly habitat, the sonth of Britain being about the lowest latitude in Europe it naturally reachen, but it is also a native of northern Asia. It is a tree of compact and handsome growith. The leaver are 2 inches or occasionally more in width, and of the same cordate ontline as those of T. vulgaris. The flowers are like thowe of the common Lime, except that they are amaller; they are produced in great ahandance daring July.
T. vulgaris.-This is the common Lime or Linden, and is by far the most sbundant of all the species in the gardent and wood of this country. As has already been stated in connection with \(T\). cordats, this apecien was, along with that and T. platyphyllou, formerls grouped ander. T. europas. It is intermediate between the other two in meveral
reapecte, viz, in aiz of leaf, in the degree of pubercence on the leaf, and in the time of flowering. It is well to remember there points of diatinction, bat in other respects it is so well known that it in needless to dencribe it. It is a lofty tree in Britain, of somewhat pyramidal shape when young, but roundtopped when old. There is one tree in the Arboretum at Kew just over 100 feet high-the tallent tree in the gardens.
T. platyphyllos.-This is the most nouthern of the three Limes, which used to be united under the comprehennive term of T. europæa, Although it is joined to T. valgaris by intermediate forms, probably of hybrid origin, it may, in it typical condition, be recognised ( 1 ), by being the firet to flower ; (2), by it broader and larger leaves; and (3), by

Kew, and the variety in now eatablished under this name in the collection. Ite peculiar character is an marh marked af ever, some of the brancher almont forming loops. It is not, at wat at first anmised, due to injury by insect (see report of Scientific Committee, Gard. Chron., 1888, ii., p. 708).
vitifolia.-Leave of more triangular outline, and with somewhat Vine-like lobing.
T. argentea. - This fine and atriking Lime hav been in cultivation in Britain aince 1767. Loudon, who describe it as T. alba, arys it is a native of Hangary, and looky upon it as a variety of the Common Lime. But it is at least at diatinct as aeveral others now given apecific rank. It is not so large a tree ae T. valgarin, rarely exceeding 50 feet in height. The leaves are unequally cordate, or almont trancate at

its leares being pabescent usually on the whole of both surfaces, but always on the lower one. There are numerou garden varietie of this apecien, among which the following are the most distinct:-
asplenijfolia, a tree of very much less vigorous growth than the type, with laciniated, irregularly lobed leaves.
aurantia.-A form dietinguished by the rich jellow bark of the young thoots.

Blechiana.-A atrong and vigoront tree, with leaves of exceptionally large nize.
obliqua.-Han markedly oblique bate of leaf. It is aloo known as T. Beanmonti.
oxycarpa. - With coarsely-toothed leaven and prominently fire-ribbed fruits.
tortuosa.- In December, 1888, Mr. G. Swailes ment a young Lime with curiously curved and twinted branchen to the Scientific Committee of the Royal Horticultural Society. Some graft were ent to
the base, 3 to 4 incher acrom, the upper aurface dark green and glabrous, the lower one of a beantiful silvery hue, which given to the tree, eapecially when a breeze is blowing, a conspicuous appearance. It is of erect, atardy habit, the fruit being ovate, mooth, and traversed lengthwise by five raired lines.
T. petiolaris.-For many yeari the identity of this meciea was very obacure, at may be guensed from the atring of nyonjmi given above. In some respects, notably in the ailvery ander-aurface of the leaf, it resembles T. argentea, and it wan at one time looked upon as a pendulous variety of that apecies. In 1884 it was figured in the Botanical Magazine, t. 6737, and Sir Joseph Hooker identified it as the imper-fectly-described T. petiolaris of De Candolle. Is in a tree 50 feet or more in height, with rounded learer, having an obliquely cordate base, and measuring 2 to 4 inches in diameter. From T. argenten-the only apecies with which it is likely to be confounded
-it differ in ite graceful, pendent growth; in ite warted, alightly grooved fruits, and in the leaf-ntalk being, in proportion to the blades, twice the length of thone of T. argenten, a character of which the specific name, petiolaris, is a anfficient reminder. A native of Eatern Europe.
T. dasyityla.-Although at pretent bat little known in gardens, this in undoubtedly one of the mont valuable of all the Limes. It is of graceful babit and vigorous conatitution, bearing some resemblance in general aspect to T. petiolaris. Ite leaver, however, are not ailvery beneath, but green on both aidea ; indeed, the peculiarly luntrous green of its large leaven distinguishen it from all other apecies. They are heart-ahaped, 4 to 7 inchen wide, and of leathery texture ; the upper surface is glabrous, but beneath, tufte of brownish pabencence occur in the axilt of the veins. The bract on the llower-atalk in lanceolate, and the fruit ovoid and downy. This species is likely to prove valuable an a town tree. It is perfectly hardy, and retains its foliage longer than the common Lime, flowering in July. It is a native of the Caucasus, and has been under cultivation over twenty years. A First-class Certificate was awarded it by the Floral Committee of the Royal Horticultural Society in Augut, 1890. There are trees 30 to 35 feet high in the Kew Arboretum.

\section*{American.}
T. americana.-Although an exceptionally fine tree in North American foresta-where, according to Professor Sargent (Silva, tt. 24, 25) it is 60 to 70 feet, and occasionally 120 to 130 feet high-it has not proved a auccess in Britain, and cannot be compared in value to the East Earopean apecies. From these it may be diatingaished by its large leaves, which on young treen, at any rate, are often 9 iaches or more acrons. They are alightly and obliquely cordate at the bave, and they are glabrons, except in the axil of the veina beneath, which are pabeccent. Although this apeciee is not subject to injary by froat, ita brancher aeem very aubject to decay, and all the trees I have aeen are more or less crooked and flat-topped. The cleaneat-grown opecimen at Kgw is one labelled var. misaissippenais ; it is, however, worth growing for the striking dimension of its leaves. The fruits are ovoid, thereby dietinguishing it from the two other North American species, which have globose frnits. It was in cultivation at the Chelsea Phyaic Garden in 1752.
T. pubercens.-Whatever value as an ornamental tree this may have in the United Stater, it does nit aucceed well in Britain, It is represented in the collection at Kew by tree 20 feet high, but they have the same aneatisfactory appearance ae their near ally, T. americana. The following particulare are chiefly taken from the Silva of North Anerica, where it in figured at t .26 : It is nowhere ammon tree, but is most abundant in Sonth Carolins and Georgia, growing to a height of 30 to 40 feet. The leaves are 2 to 4 inches long (much larger on the amall tree at Kew ), pubeacent on first opening, bat afterwarde glabrous on the upper aurface. The mid-ribs, the peduncles, and the flower-buds are also pubencent. It was introduced into England in 1726. The variety leptophylla has larger and thinner leaver.
T. heterophylla,-From the two above-mentioned North American Limes, this is eanily distinguished by the nilvery-white under-an'iace of ite leaven. Prof. Sargent (Silua, t. 27) devcribes it an atree 50 to 60 feet high, and enyn that few North American trees surpans it in the beanty of ite foliage. The leaves, which are bright green and mooth above, are 4 to 8 inchea long, and the truncate or cordate bate are more markedly oblique than in either T. americana or T. pubescens. It was introduced in 1811, but is at present a very rare tree in England.

\section*{Abrattc.}

There in not much to be waid in regard to the Aviatic Limen, at cultivated treen in Eagland. T. cordate has already been dencribed among the European apecié, and the only others in our collections are T. Miqueliana and T, mandeharica. I heve not
seen any living T. cordata that has been introduced from North Asia, but jadging by the dried specimens in the Kew Herbariam they do not vary from the Earopean form any more than the latter do among themselves. The most obvious difference is that aome of them have leaves with a white under-aurface.
T. mandechurica.-A swall tree at Kew under this name in 12 feet high with a buthy head. It has thin, cordate, slightly obliquo leaven measuring 6 inches across, with aharply pointed, irregular teeth which are either atraight or curve alightly outward. It does not promise to equal any of the Faropean species in beanty, at least in the London district. It is very subject to injury by apring froste, and the branches have in consergence quite a pollarded appearance. The young bark and buds are at thil reason covered with a grey-brown tomentara. Professor Sargent, who describes and figures T. Miquelians in the Forest Flora of Japan, stat that the tree just described is that apecies, and not T. mandacharica. Bat so far as leaves go, the Kow plast agreen with Maximowicz's specimen of T. mendecharice gathered by himself in Acourland, and now preserved at Kew.
T. Miqueliana.-This apecies is a common forest tree in the northero parte of Japan, and it there attaina a beight of 100 feet. It is only represented by emall seedlings at Kew, and it will bs aome time before any definite opinion can be given of ite probable value in Englist garden. Maries collected it in Yexzo, and his specimen in at Kew. From it, it would appear to differ from T. mandschurica in the more incurved teeth of the leaven, the greater obliquity of their bases, and the more obvious whiteness of the under-marface. W. J. Bean, Arboretum, Kew.

\section*{NEW ZEALAND FRUIT CULTIVATION.}

In thete daye of heary importation of colonial and forelga fruite, is is a matter of some importance to growerk and alesmen at home to realise at nearly as posuble what they have to meet from their competitors in other lands; and thus it is that we take advantage of opportunities afrorded by the agente of colonien and foreign power reaident in the metropolin to place the desired information on record here. Very often the power to compete possensed by our "outside "friende is over-entimated-an in the case with the colony under consideration-New Zgalsnd. Oat there, growers were going to do all sorts of things with ell sorts of fruit trade-they have till to begin! In the matter of Applen, all sorts and uizos of frait were placed on our market, and served to prove an object-lesson of That to aroid planting and sending out as eatable. To-day, old trees are being up-rooted and re-placed by finer varietien, ach an are suited to Eaglish palates-the ame lesson ss wat so well learnt by our friend in Tasmanis and elsewhere. At present, the colony doen not even atinfy the cravings of attlers for tootheme fruit-by-andby they may bo ablo to week fresh field with a chance of auccens.
Thim year there are 21,400 acres laid down in orcharda-an increase of 313 acres on the area so returned in 1894. We misy insert here the fact that a great deal of fruit consumed in the colony find it. way from other Auttralasian colonien and the Pacific Islands. From the North Cape to the Bluff Hill, on the extreme nouth of the Middle Island, a large variety of fruite is grown, such as Peara, Plum, Qainces, Apricotr, Fign, Walsuts, Cherrien, Goomberries, Carrants, Strawberries, and Rapberrien, and produce large crops. In the Auckland district, Orangen, Lomony, and Limes flourish; many grove are now in bearing condition. The Olive flourithes in the North Ioland, and bearr heavy crops; and the manafacture of oil in gradually becoming an important induetry. Vine-growing is also carried on with far morn success in many dintricts; tons of fruit grown under glase are sold in the Auckland markete annually. It is believed by thove who know, that the production of wine may soon be entered upon in various localities; raisin, of courne, will follow the
development. Auckland has extensive orchards of Apples-some of them halfacentury old, which prodace excellent frait-return going up to from \(£ 40\) to \(£ 50\) per acre in favourable seasons-that is, when pents are kept under. In Otago orchard-planting is progreaning rapidly, all fruit of the temperate zone finding a congenial noil there; railway would play an important part in this development. It may be of intereat to note that the manafactare of cider is anaming considerable dimentions; aluo the drying of frait, which latter is helped on by the Government in various way. Jsm is being looked after, and if-ah, that "if"!-capitsl were bat forthcoming, very mach might be done in frait-preserving for home consumption.
From the material placed at my diaposal by the Agent-General, very mach more of interent might be given, bat pace will not permit; enough, bowever, ha: been placed on record to how that much mas be expected in the not far-diatant futare from New Zealand fruit-growern. E.C.

\section*{The Week's Work.}

\section*{THM HARDY TRUIT GARDEN.}
by W. Pops, Gardener, Highclere Castle, Newbury.
FILBERTS AND COB NUT8.-Nuts form a profitable crop in many parte of the country and well merit attention being bestowed apon the bashes in the matter of praning, and dressing the land round about them with manure. They aucceed admirably when planted in row midway between the lines of pyramid Apple or other fruit in the orchard proper, but better atill, if a piece of land be given up to their cultivation. This ahould be sheltered from the prevailing strong windr, a the blossom readily anfer from the fronty wind which are experienced at the time when Nat-busbet are ascally in bloom. To secure fine crope of superior Nats, the bushes should be planted 10 feet apart each way, and trained in much the ame manner an a well-balanced Red Carrant bash. Supposing the start to be made with a atrong-rooted ancker, this should be cat down to about one foot of the ground, and the growth resalting redaced to three of the atrongest and best placed. These during the succeeding winter should be hortened to about 3 or 4 inches from the atem. From growths apringing from there cat-back ahoots a sufficient number of branches will push to afford a selection for the foundation of a bunb, and they should be tied to atakes tuck into the ooil in a circle, the centre of the buih being kept clear of shoots. These main branches ahould be cut back annually at the winter's pruning about 12 or 14 inches; a good ahoot being selected from each in the mammer and trained at leader, and the atrong lateral growth slightly shortened. When the devired height in attained, which may be in 6 to 8 feet, all cosres growthe should be stopped, and at the winter praning old bearing wood and atrong moots freely shortened, leaving the mall catkin-baaring prapa untouched. It is best to defer the winter-praning till the female blossoms become visible, thinning and shortening being then carried out with more certainty of securing a crop of nuts. Suckert ahould be constantly kept down, and a moderate dreasing of good manure applied every year, and lightly forked into the marface. Naturally-grown bushen are, of course, much more common than these trained and closelypruned bushes, and deserve better treatment than uaually falln to their lot. In their came a wlight thinning of the topr, and the clearing away of suckers, will be beneficial. Aliberaldressing of manare as far as the roots extend will certainly lead to further improvement in the ize and quality of the nuts. If catkin are ecarce when the tree are in blossom, as sometimes happens, a few boughs of common Hazel, on which they are generally abandant, hould be cut and placed about the branchen for the purpose of fertiliation.

WINTER DREBSING FOR FRUIT TREES.-NOW if the right time for dreasing fruit trees infented with inects. The old-fashioned remedy of hotتater in which a small lump of soft-soap has been dienolved and petrolenm added, in a imple and effective dresaing. A wine-glanful of petroleum to each gallon of water will be as atrong as it is affe to ute it, and the mixture when applied chould be at a temperature of \(120^{\circ}\). Use a ayringe in diatributing. Keep it thoroughly mixed whilst aning by retarning
every other syringefal forcibly into the can or pail. For American blight the ame mixture is very effectual if well rubbed into the infested parte with astiff brush.

\section*{PLANTB UNDMR GLASZ.}

By W. H. Sxite, Gardener, West Dean Park, Chichester.
LILIUM LONGIFLORUM VAR. HARRIBI,-These plants should be kept free from aphis, which are apt to infest them, by an occasional fumigation or duating of tobacco-powder or nuff, the former being the cleaner and better remedy. The pot being now. filled with roots, slightly more warmth may be affordeत, and weak manure-water freely applied. These Lilie should be kept pretty close to the root and not hard-forced, or the flower-bud will become "blind."

Lilium auratum and L. Lancifolium.-Tae bulb of these species hould be potted when received from the nursery, and the pot planged in coal-ashes or cocoa.nat fibre, and cold frames placed over them. They will not require any water before growth commence.

MARGUERITE8.-These plants, if they are now placed in a temperature of \(60^{\circ}\) by day to \(55^{\circ}\) by night, will soon afford flowers in quantity usefal for cutting. An early vinery would be a suitable place for them if they can be placed where they are not shaded by the Vines. Plants atruck in the autama hould be repotted into 48 and 32 - sized pots, and will make nice-sized plant for flowering in the apring.

BEGONIAB.-Seed of the tuberourrooted varieties may now be nown, using for the purpose well-drained ahallow-pans in preference to pots. Place these on a shelf in the stove, and when the seedlings appear above ground, use means to prevent their damping off.

FREESIA8.-If these bulbe have been forced hard, flowers will soon appear, and the plants ahould be gradually given a cooler temperature just previoas to the expansion of the first blooms, which will form the right sort of preparation for the removal of the pots to the cool conservatory. Application of weak manure-water should be afforded, which will help materially to increase the size of the bulbs and improve next year' blossoms. Another batch bould be brought into a warm house, choosing the most forward of those in frames. If aphis be present on them, fumigate forthwith with Richards' Compound.

MIGNONETTE.-Seed in quantity may now bs sown in \(48^{\prime}\) 's, using plenty of mortar-rabble finely broken in the loamy woil, and a handful of horse-droppings to cover the crocks, which should be fairly plentiful. Make the oil very firm, and place the pots when sown and watered in a slightly-warm pit close to the glase.

HINTS ON WORK IN GENERAL.-At this zeanon when the weather is mostly unfavourable for out-of-door operations, an opportunity should be found for preparing for the epring, when nearly every kind of plant requires some sort of apecial attention, and many repoting. Where safficient shedding exists, heap of loam should be got ander cover in readinest for potting Chryanthemums, Carnstionp, \&c. It where the heap: are prepared a label be placed in each, indicating the use it in intended for, it will asve mistakes being made, and facilitate the operation. Peaty compont may also be prepared for Ferns, stove and greenhouse plantr, \&cc., and all the variety of items required ahould be got in readineas for usp. Plauts of all kinds should be thoroughly cleaned in the Finter months ; and Bagonis tabern examined, removing from them the old roots and soi!, but not to akinning them in so doing. Place the tabers in cocos-nat fibre in boxes or pany, and store in a dry, frost-proof place. Examine also Achimenes, Caladiump, Gloxiniar, and Hippeastrume, to ascertain their condition, and ahould any of the early Gloxinias have began to grow, they ahould be brought into the light.

\section*{THE FLOWER GARDBN.} By Bathex Wadds. Gardenet, Birdsall Gardens, York.
berry-bearina plants.-When planting new shrubberies and borders, or re-arranging old ones, care should be taken to include a good namber of berry-bearing plants. They are intereating and bright daring the autumn, winter, and apring months, when not taken by the birds, as they often are during revere
weather. This, however, should not discourage an extensive ase of such trees. The parple berrien of Mahonia aquifolia are beartiful during the early winter, when they often resemble clusters of mall black Grapes. The plant is one of the most usefal for groaping in mases, and its bright golden flowers and reddikh-purple foliage are very effective during spring. Symphoricarpas racemosas (the Snowberry tree), with its pretty small pink flowers and large white berries, is useful for planting in the background and under the shade of other trees. It will grow in any soil, and shoald be well dag about, and the suckera removed, or it will quickly overrun it bounds. There are many beantiful varietien of
Hawthorn (Crategus), that are showy whon flowering during the early nammer, and they have pretty and various coloured berries in aatama. Standard treen of thene may ba auitably planted as aingle apecimens on lawns and in the back part of nhrabberies. Crat \({ }^{+}\)gas pyracantha var. crenulata, or evergreen Thorn, with its clastars of scarlet berries, is useful for planting againat pillare, arbours and rains, dwelling-bonsee, or in warm nitaations it will nucceed as a bush plant. Another berry-
bearing plant that might be more largely grown is the Sea Backthorn (Hippophae rhamnoides). It is a pretty deciduous shrab, with silvery foliage, and the female plants are uanally heavily laden through the winter with yellow berrien. The plant is easily propagated by offsets. Plant in the background, as it grows tall. Elders with their various coloured foliage, and scarlet, golden, or purple clasters of frait are very beautifal when grown in masses or as specimen bushes. S sveral varieties of Cutoneaster are also good, as C. microphylla, C. buxifolia, C. marginata, and C. thymifolis, with fine evergreen foliage and scarlet berrien. The Strawberry tree (Arbatus Uaedo), with its fine foliage and scarlet frait, grows best in andy loam and peat. Then there is Aucaba japonice, and several variaties of Pernettyas, also many beatiful varieties of Hollies, all worth planting. The Bilberry, Blueberry, Cranberry, and other varieties of Vaccinium, succeed well in peaty soils. The Misleto (Viscum album) is in great demand at this eason for decorative purpores. To propagate the plant, rab the seeds into cracks in the bark of Appletrees, Thorne, Limer, and Avk. Protect them by a piece of net antil the plants grow. Ia diatricts where the plant is abandant, the Misleto-thrush and other birds feed on the berries, and pass the seeds undigested on to the bark and betwesn the branches of treer.

\section*{THE ORCHID HOUSES.}

\section*{B \(\lrcorner\) W. H. WeITr, Orchid Grower, Burford, Dorking.}
anaracums, etc.-In the East Indian-house, Angrasum sesquipedale is fast pushing out its flowerapikes, and theme should be examined daily for a mall specien of yellow thrips which attacks it. Should only a few of these insects be found, it is nevertheless adriable to fumigate the plante at once, and thus to deatroy all those that are imperceptible to the naked eye; failing this, a whole year's inforescence may be disígured. The pretty Angrecum pertasum having flowered, hould no be given ashort reat, receiving no more water at the root than is anfficient to keep the surface sphagnum moist. Angrecam pellucidum is now prodacing ita flower-apikes, and as these have a tendency to punh themelves downward into the compost, they should be conatantly watched, and assisted over the surface, so as to fall loosely over the sides of the receptacle in which the plant is growing. Should the apiken descend into damp sphagnum-mose, most of them may be lost. This apecies requires to be kept conatantly moist at the root, nutil its pretty flowers commence to open. Two carious bat botanicallyinteresting Orchidm now flowering are Arachnanthe (Vanda) Clarkei and A. Cathcarti. Taey appenr to nucceed beat when trained on upright Teak rafts or cylindern. As both plante have a distinctly penduloas habit when a certain amonnt of growth is made, they should not be uniformly tied in an upright position, bat allowed to droop naturally. Ualike many other apecies of Vanda, the atem of these plants should not be cut down when they become deroid of their lowermost leaver, for if allowed tbeir natural atraggling habit of growth, the aucceasful flowering of both planta is aasured. At all neavons they require copious waterings from the ayringe. Anarecum Scottianum succeeds well nnder vimilar treatment. It should be fixed to a cylinder of Teakwood, and its thin steme tied firmly to the rode, so that the mull roots may have something subutantial to cling to, and when in active growth it in
very important to occationaliy examine the plant, carefully tying the scandent growthe in an upright
position. position.

BRA88AVOLA8.-B. grandillora and B. venosa being both in flower now, their deliciou perfume pervades the whole houre, enpecially at night and early morning. The pecie grow thoroughly well thespanded on Teak rafte, the plants being fixed to the wood with their terete leave in a pendent porition.

CATTLEYA-HOUsE.-Plants of Catcleya Parcivalliana are now throwing their flower-apiker, and need a little extra, water at the root. Should mild weather continue, thin house will well nuit their requirements, but in the event of aevere frost a few degrees more warmth will be necesary. Plants of Periteria elata whose preado-bulbs are fully made up, should be placed in a light position in this house, and ba given sufficient water at the root to prevent shrivelling. Other apecies now at rest, and whicy require nimilar treatment at this season, are Chyis Chelsoni, C. bracteacens, C. Sedeni, and C. arrea, alao such Orchida as Luddemannias, Acinetas, Gongoras, Stanhopeas, \&c.

\section*{THE KITCEAN GARDEN}
by Jonim Lambert, Gardener, Powil Cantle, Wolahpool.
GENERAL WORK. - The weather being too wet to work on the ground without doing harm, sundry other jobs may be attended to. Pea-stakes and Bean-rode may be cat before the sap risef, and they may be trimmed and put in nizes ready for une. Look over those saved from last season, and pict out the best to be fresh pointed. Boxes will need attention, and a regalar stock of new one ahould be made each year, benider repairing the old oner. Wash all pota, and pat them away in a dry whed ready for une, keeping each wize in its proper place. Ths ceed-room may be overhanled, throwing away all uselens seeds. New homs-raved need may be put away in thair respective drawers, which should be plainly labelled, so that they may be readily found in a busy tims. Look up notes raspecting crops and seeds, and put them in order, for the new seed listy are now nrriving. Icehousen, if emptr, should be thoroaghly cleaned oat and whitewashed, and left open to aweeten. Tools that were not put in order after the work last winter, should be sharpened and mended, if necessary. Bracken or other maserial should be cut and put in readiness for the atacks of ice made in the open. We are still using from the outside stack, and the ice-house is not yet opened. Box-edgings that have become old and leggy should be relaid, as nothing gives a garden a more antidy or neglected appearance than badly-kept edgiugs to walke. If appavel can be obtained on the estate, a stock should be zereened now and pat ready for fatare use. The walky may be tarned over where the practice is adopted, and if they are fresh gravelled now, a light coat later on in the apring will make all cidy. If tile, stone, or brick edgings are used, they thould bs atraightened and monded where necertary.
root houses shoald be given close attention. Potatos are, perhaps, the most important of these. Look over the tabers carefully, and remore any suapicious ones an well as as thone which are decayed. Room will now be found to spread them out thinly. Oaions shoald be forted, and any which seem inclined to grow welected for present use. Give plenty of room to all the amaller onen of James' Keeping and other goodkeeping varieties. If not yet done, tie up in bander, or trans if plenty of time on hand, any that may have atalks enough attached. In this shape they can often be accommodated in places better adapted for keeping them. Shallote and Garlic should be cleaned and put safe from frost, ready for apring planting. Carrote, Tarnips, and other roots may receive similar attention. Take off all growtha, as if these are let grow, the roota are not of good flavour.

FRUITB UNDER GLABE. By Riochan Pakesk, Gardener, Goodwood, Chichester. MELONB. - In order to cat ripe fruite in April, seed should be nown in the firat week in the new year, or alightly earlier. For yearn patt it has been year, or sitighty earlier. Boxing day, and I have seldom failed to cut a ripe frait in the first week in April. Two seeds should be placed in 3 -inch pota at a diotance from the edge of the pots at about half an inch, and half an inch
deep, the woil being sifted loam and leaf-mould, the noil being made moderately firm below the seed, and leas no above them. SJwn in this manner, the plant can be repotted or tarned out without root-diatarbance. It is an advantage to grow the earlieat Melon-plants in pairn till they reach 1 foot in height, owing to nuavoidable losses by damping, insects, \&cc. The pots thoald be clean, dry when used, and well drained. The pota con!aining the seed, should be planged in a hotbed having a bottom-heat of \(80^{\circ}\), and top-heat of \(70^{\circ}\); germination will then take place in few daye, and if the soil be fairlp moiat, no water will be required till the planta appear, and may not then be required. Tepid water hoonid be ased when water becomes needed, and it mast be carefally aff srded through the pout of amall water-can, not wetting the learea or stem. The plante abould not atay many day in the frame, or they will become drawn and weak; bat they mast be gradually accuatomed by affurding air to the frame, to a warmth of a pit or house of about \(68^{\circ}\) or \(70^{\circ}\) by day, and not lean than \(60^{\circ}\) at night. Stand them on a shelf near the plas. For early work, the planter may bs fraited in 10 iach pots, or two plante may be grown in a 12 inch one, but I prefer planting them out on billocke of tarf on a hot bed. In the meantime these hot-bede should be made up in the house or pit in which the plants will be grown, using atable litter and leares in this proportion, the firat may be one-third and the latter two-tbirds, which I have recommended to have in readiness. These should have been tarned over and well mixed together two or three times, and then left to ferment for a few days before making the bed. This may be from 3 to 4 feet ia width, and bailt up pretty close to the trellis, so that the plants may be near the roof glass. If the young plants occupy the houre whilat the hotbod is being made, mesns must be taken to let out the ammonia ariaing from fermentation, or they may get killed by it; indeed, it is better to have the plante meanwhile in a plant atove or Pine-pit. When forming the hillocke of soil, aslate or two hoald be placed under each, no as not to let the roots get into the hot-bed materials, as this would result in very rank growth. Seed may soon be woxn for accession, the treatment of the seed and plante being similar to that given. Thers mant bs caution used in the matter o? firehest to young Melon-plante, or red-epider will soon infest the foliage, causing grent injary to the plant.
cucumbers. - Plants which map be in fruit will receive every encouragement to keep them in health, and remembering that much moiture at the rooto is almost as injarions to the plants at this seaton as dryass. The soil should be lept fairly moist, and nothing more. A small quantity of Clas's Fertiliser, or bone-meal, afforded once a week as a earfacedressing, will keep the plata in a better condition than farmyard manure-water. Be careful in regalarly removing pent foliage, male blooms, and deformed fruits, and do not allow the p'ante to carry any more fruit than are really required, and there should be cut before they are fally grown.

TOMATOE. - Young planta in amall pote mast be kepts growing near the glass in a fairly warm houre, ventilation being given during mild weather. Tae plants should not ba allowed to becoms pot-bound, nor be over-potted. Weak liquid-manare may be afforded once or twice a week to bearing plantr, and the items tied to stakes as required. Keep the growth stardy daring dall dayp, as planta rendered weak in any way aeldom give good crope later on. Seed of an early-fraiting variety may bo nown thinly in pans, and placed on a shelf in a warm-hoase, pricking off the weedlinge when large enough to havde at 2 inches apart, and keeping them close to the glan. It is from thic sowing that fruit may bo gathered in April. Pianta in beariag may be cop-dreased with fresh loam and well-decayed manure as the roote extend. Weak manure-water made from sheep' dropping, is also beneficial in suiating the fruit to -well. Continue to ventilate the hoane during mild weather, affording artificial heat all the mame.

Sand-hill Planting.-Mr. Rydbega (Contri). U. S. National Herbarium, iii, 3, Seps. 14. 1895), hav an interestiag pap3r on the nad-hille of Nebraska. The characteristic graves which biod the eand together are Calamovilia loagifolia, Eragrostin tonnis, Redfeldia flexuora, and Miblenbeckia paagens. Mr. Rydbera recommend the planting in snitabla situations of Pinus Bunktiana and \(P\). ponderora var. acopaloram.

\section*{EDITORIAL NOTICES.}

Advertisamonte should be sent to the PUBLISHER
Mustrations.-The Editor will thankfully receive and select photogrophs or dravings, suilable for reproduction in these pages, of gardeus, or of remarkable plants, Rowers, trees, st.; but he cannot be responsible for loss or injury.
Letters for Publication. - All communications intended for publioasion, as well as specimens and plants for naming. showld be addresed to the Editor, 11, Wellington Street, Covent Garden, London. Communicatione showld be wRITTEM OM ONE BIDE ONLY OV THE PAPEB sent as early th the week as possible, and duly signed by the wriler. If desired, the signature will not be printed, but kept as a guarantee of good fuith. The Editor dues not under take to pay for any contributions, or to return unused com munioutions or illuatrattons, uniess by special arrangement

APPOINTMENTS FOR THE ENSUING WEEK.
SALES.
TURSDAY, DEC, 31\{ \(\begin{gathered}\text { Japanese Lilieq, Rowes, Greenhouse } \\ \text { Plants, \&co, at Protheroe \& }\end{gathered}\)
FRIDAY, Jax. \(3\left\{\begin{array}{c}\text { Orchids, at Protheroe \& Morris' } \\ \text { Rooms. }\end{array}\right.\)
JORRECTED AVERAGE TEMPERATURE FOR THE ENSU. ING WEEK, DEDUCED FROM THE OBSERVATIONS OF FORTY-THREE YEARS, AT CHISWICK.-36.7 \({ }^{\circ}\)

A metrospect of the progress of
1805. hortioulture for the year now at its close is, as usual -
"Of a mingled yarn, good and ill together."
We hope we shall not be thought too optimistic if we say, that putting aside matters of secondary importance, the good has predominated, and hortioulture has progressed. It is likely enough that anyone seeing only the routine exhibitions, for instance the endless Chrysanthemum shows, presenting little or no difference one from the other, except in extent, would say that the wheel turned round bat did not advance. It is not, indeed, in this direotion that experience has taught in to look for progress. The most encouraging signs we see for the advance of horticulture in general, are the steps being taken in our raral districts for the promotion of technical education. We are still a quarter, if not half a century behind other nations in this particular; but, at last, we are moving, and when we do move, we are apt to do ao pretty thoroughly. Technical education is understood in various ways in the different connties. In some, it means perfected routine; in others, it means inatruction in general prineiples; whilat in a third category, it implies not only inoressed skill, bat skill directed by judgment begot of knowledge, whioh should be the highest aim of practical cultivators. Each distriot has its own requirements, and is influenced by ita own local oonditions, so that there is no neoewity to uphold the one at the expense of the other; suffioe it to note, with satisfaction, that in one way or in another, progress is being made, and progreas of a kind that is likely to increase in volume rather than otherwise. The large extension of fruit-growing and of marketgardening is also a matter for congratulation in the present depressed state of agriculture.

The garden crops generally have been good this year, theextraordinary oold of February coming too carly to infliot much damage; whilat the hot, dry antumn, if there be any thing in well "ripened wood" an offering a forecast for the future, should favour our fruit orops for the following season.
Exhibitions in Losdon and the provinces have been more numerous than ever, but none has presented any novelty or any speoial features worthy of comment in a brief retrospect like this. Of literatare pertaining more or leas to hortioulture, the year has been prolific, It will be afficient to mention the oompletion of the

Inilex Kewensis, the compilation of which is indeed a boon, the appreciation of which will constantly increase as time goes on. Krbner \& Oliver's Natural Mistory of Piants is another book that will be of the utmost value to thoughtfal hortioultarists. Dr. Weiss, too, has rendered good servioe by pablishing a translation of Dr. Soraurr's popalar Treatise on the Physiology of Plants for the Use of Gardeners. This is the nearest approach that has yet been made to Lindley's Theory and Practice of Horticulcure, the theoretical portion of which latter volume, of course, is long out of date. Professor SAhGent's monumental work on the Trees of North America progresses steadily, and will be of the atmost servioe to arboricaltarists. The numerous hand-lists and other publications issued from Kew are within the means of any ordinary gardener, and should find a place in every garden-library. Of the new edition of Paxton's Calendar, prepared by the members of the staff of this journal, it does not become us to speak further than to say that it is intended for cottagers, allotment-holders, and ocoupants of small gardens generally, and has found mu h favour with the public. The aseful monograph of Masdevallia issued under the auspices of the Marquis of Lothian by Miss Woolward is approaching completion. Another work whioh will take its place as a classic is Miss Amherst's History of Gardening, lately reviewed in our oolumns.

Forestry has at length been enriched by a scientific treatise of the first order of merit, pablished by Dr. SCHLICH, with the assistance of some of his colleagues at the Cooper's Hill College. A new and revised edition of our old friend Brows's Forester has also been published.

The reports of the Epping Forest Commission express in the main the views and feelings of those who have any knowledge of woodland management, and an intelligent love of natural history. They will, we hope, for a time at least, silence the olamour of well-intentioned but illinformed enthusiasts.

The obituary record is unfortunately long, and inoludes the names of some of our beat-known gardeners, such as Wilhiam Thomson, Thomas Bainrs, John Wille, Riceard Gilbret, T. H. Rabone, Petre Gitevr, C.F.Bausk, and others. Among men of soience more or less directly conneoted with horticulture who have been taken from us, mention may be made of Pasteur, Huxley, Babington, Baillon, Bommer, Bernardin, Hellriggel, Rilfy, Truffaut, Vrsque, Profermor Lawson, Cleghorn, and others.

The discovery by Lord Rayleriah and Professor Ramsay of a new element in the shape of argon does not seem at present to have muoh oonneotion with practioal gardening, but one featare of these epooh-making discoveries is, that the most unexpected results acorue from them; and we may not unreasonably look to future researches into the nature and action of this gas to aupply fuller information than we have, at present, on the nutrition of plants, and the part that nitrogen plays in the vegetable kingdom.

As the discovery of argon oansed a flutter of exoitement among scientifio men, so amongst the gardening fraternity consternation was felt at the oircumstances sttendant on the retirement of Mr. Barron from Chiswicls. Whatever object the Connoil of the Royal Hortioultural Sooiety may have had, they succeeded in wounding the sasceptibilities of the gardeners and of their own committee by the ill-advised manner in whioh, no doubt unwittingly, they carried out their object. The Sooiety has ated handsomely to their late Superintendent, so
that it seems olear that no personal slight was really intended to him. As Mr. Barron retires with a substantial pension, and has been made a Life-Fellow, there is no necessity to dwell on the personal side of the question. But wholly apart from these personal considerations, there are prinoiples involved in the unfortanate mode of action adopted by the Council which cannot be thrust aside by the somewhat lame apology that has been published on their behalf, principles which involve the honour of the several committees. These several committees have been, as usual, busily engaged during the season, and it behoves them to be more than ever stringent in their awards. Wherever ciroumstances permit, no definite award should be given till the exbibit has been watched daring growth at Chiswiok. A remark of Mr. Shea's in the pages of our energetio contemporary, the Gardeners' Magazine, illustrates the desirability of insisting, wherever it is possible, upon some more thorough test than is possible by the mere comparative inspection of flowers on a board. Mr. SHeA's statistios show that the great majority of oertifioated Chrysanthemums never afterwards make their appearance on the exhibition tables; or if they do, that they speedily fail to retain the favour of the growers.

Oar exhibitions may be attractive to the public and very seductive to prize-seeking exbibitors, bat their main object should be the advance of hortioultare-a point not safficiently considered by the Royal Hortioultural Society, and almost ignored by the provincial societies.

Of the future we need not spealk now, but it is impossible not to look forward with eager expectancy to the futare development of Chiswick as a trial garden and experimental station. At Chiswick we look for processes, at the exhibition table for results. The results may be the more stimulating, but the processes are the more instructive to the gardener.

Cooper'a Black and liros Maroe

The Journal of Horticulture for December 5 has an excerlent and interesting artiole on this subject, which shown, among other things, the need of maintaining at Chiswick a "type colleotion," not only of Grapes, but of fruits and vegetables, which could be referred to in case of dispute or uncertainty. At the same time, a collection of photographs and coloured drawings should find place in the Lindley Library, so that we might have, as botanists have in their herbarias and libraries, some authentic standard of reference. Of course, allowance must always be made for natural variation, as well as for that whioh is obviously the result of a ohange in the nutrition of the plant or other conditions. The necessity for this is well exemplified in the following extract from our contemporary :-
"We only attach mall, if any, importance to alight variatione in shape of berry as a factor in diftinctnem of variety. A few yeara ago we called on a large grower of Muncat Grapes for market. He was busy at the moment auperintending the forking into half the length of the inside border the heavieat dreasing of nitrate of coda we have ever eeen or heard of being used. "Jutt an experiment," he remarked. When the Grapes were nearly ripe we were ahown the reaults. The berries were half as large again at thowe hanging from the other half of the roof, and the oval ahape had practically vanished. To use the expreasive phrase of the owner, the nitrate of soda had "blown them out;" those on the other half of the roof (border undressed) were much amaller, and quite oval. This is mentioned as a atriking example of variation in which the direct canae was known. We do not advise private gardenery to follow the example mentioned, or they
might "wear out" their Vinen too woon. This market grower is always working on the express syatem - clearing ont nome housen and planting othere every year; but thie cannot be done in private garden..

The general conclusion at whioh our contemporary arrives is atated in the following terms:-
"We are decidedly of opinion that the Grapes grown an 'Gros Maroc ' and 'Cooper's Black' muck too closely reatmble each other to be uhown an diatinct varieties, and consequently an exhbit containing them mast be liable to disqualification."

F Synandrobpadix vermitoxicub, Engler.: This on namental and very distinct Aroid flowered recently in the Royal Gardear, Kew, and from it our illatration (fig. 131) wat made. It is a native of Tucumar, one of the Argentine provinces, and on the firat occanion of its flowering in this country, was figured in the Botanical Magazine at t. 7242 , from a plant caltivated at Kew. In habitand foliage it beara some resemblance to a Richardie, bat the inflorencence is more like that of Taccarum Warmingianum than of any other Aroid known to me. Like the reat of the group to which it belongs, ite root-atock is a tuber, which is asid to attain a weight of 3 to 4 lb . The leaves are three to four in number, with petioles \(1 \frac{1}{2}\) to 2 feet long, of a light green, marked with darker green lines, and the blade in brighs green, 13 to 14 inche long, by 8 to 11 inches in breadth, cordate-ovatp, ncats, with wavy margins. The inflorescence is produced with the leaver, on a pedancle 6 to 8 inches long, which is of a light greed, with darker green lines; the apathe is about 7 inche long, and 3 to 3 inches broad, erect, elliptic-oblong, cuncav', convulute at the apex into a sabalate tail-like point; the outside is green, and the inside dall purple-madder, both aides betng ornamented with shurt darker atreake. The lower part of the padix which bears the fimale Howers is adaate to the apathe, the reat beiog free, and covered aft round with male flowern ; there is no perisnth to the fluwer, but the green uvaries are sorrounded by fuur ovate, obtanf, dall purplish staminodes the mamens of the mate flower are anited into a atout, - Nullen, josj-parple colamn, armounted by amali head of blackinh-purple anthera. There are aeveral other Aroids in the Argentine Provinces and South Hraz ', that are more or less allied to this plan', belooging to the genera Taccarum and Asteronigme, which are ornamental in cbaracter, and well worth the troable of iatrodacing. \(\mathbf{A}\) few of them have been under cultivatior, but only in a very limited quantity, I beliefe, and they appear to have soon died out. There ought to be very little difficulty in \(r\) aiaing them from seed, but I believe that they require to be cron-fertilised, af, in the few casee known to mp, where Aroid with an infloreacence of this character have been aelf-fertilised, the renuit has alway been a failare. N. E. Brown.

Our Almanack.-Secretaries of Horticultaral Societien and others, are earnestly requented to forward immediately, the dates of Show Fixturee and of Meetinge of Botanical and Horticultaral Societiea of any kind for 1896, for ineertion in the Almanack, to be pablished in our inaue for January 4.

City of London Colieae, White Street, Moorfielob.-Profemor Boularr, F.Lis., F.G.S., A.S.I., will deliver an introductory course of twelve lecturen on "Commercial Botany," on Thuraday*, 8 to 9 PM , commeacing Thuraday, January 9, 1896, The following subject will be treated of : The Hintory of our Trade in Vegetable Producte-Food Sabatances - Drugs - Oils and Oil-weeds-Gams, Resins, and Rubbert-Dyes and Tanning Materiale - Fibreil and Papar Materials-Timber and other Wood-Agricultural Plants-Miscellaneoua Vegetable Products.
- Daring Lent Ters, 1896, Profemor Bovecnir, F.L.S, F.G.S., A.S.I, will also deliver a course of ten lecturen on "Forestry" on Thuraday evenings, com-
*Synandrospadix vemmitoxicus, Engler, Bot. Jehrb., 1883, val. 4, p. 62.
mencing January 16 , at 9 p. w. with apecial reference to the examinations of the Sarveyors' Institation. Practical demonetrations in the country will be given during the apring. Syllabus: Climate and TreesLand witable for Arboricultare-The Draining and other preparation of the Land-Narseries and thair Management-Plantiag Operationa-Thinning and Maintena ice - Felling and Barking - Timber Measurement - Exploitation and Management of Coppice-The dietinctive charactert of the variou* British Timber Trees.

Kew Seed List.-In the form of an appendix to the Bulletin for 1896, has been published a list of meeds of hardy herbaceous plant\%, trees and shrubs, available for exchange with other gardens and with regular corrempondente. These seede cannot be bed by purchase. The list occupies no fewer than thirtyfive 8vo pagen of double column.

Rare Books and their Prices, with chapters on Pictures, Pottery, Porcelain, and Postage Stamps, by W. Roberts. (London: George Redway) Mr. Roberts hae here enlarged upon and repablimbed in book-form certain of his articles which first appeared in the Nineteenth Century and the Fortnightly Review. He treat of the present-day mania for collecting, and of the large amounte of money which those able to do to will spend on their favourite hobby. Collecting has its good and its bad aider, and both are here touched on, but the book is chiefly occupied with mention of rare booke, articles of porcelain and pottery, and with quaint and true tales of the prices which some of these have fetched at different atages of their career. It is an interesting volume, both to those who find their happiness in parsaing the collecting mania and to othera who prefer to watch such enthasiasts with amusement and without joining them in their pursuits.

Berlin Industrial Exhibition, 1896.-Oae of the apecial feature of this exhibition is to be an intereating and inatractive department of horticalture. Oa one of the best-nituated positions, near the main bailding, and between the recreationground and the Marine Panorama, will be opened five hectere for the sole purpose of the horticultural nection. This portion of the exhibition, which is already partly completed, is being carried out under the direction of the Economy Councillor, Herr L. Spätr, an acknowledged authority on horticulture. Someeighty firms in Berlin and environsare here represented in a more or leas prominent manner. About half of the ground allotted to this group in claimed by the tree plantation exhibitorr, and by the landcape gardenera. A plendid park of 1900 mère: quare has also been kilfally arranged on wellchoen groun', and several promicent gardeners have secared a large and desirable position to utilize for origioal landacape gardens. A lawntennis ground in trae Eaglish atgle is also contemplated. Fruit culture of every species will also play an important part in the Barlin gardening induatry.

Cottage Gardenina."-Vol. vi. of Cottage Gardening, edited by Mr. W. Rominion, is now ready. (Publinhern, Mesurt. Cassell \& Co) It treate of the uaval abbjects-poultry, window and town gardens, allotmentr, beer, simple cookery, and honeekeeping; and is quite equal to the previous volumes in value and intereat.

Cut Flowers: Ofchids.-M. Luciek Lindras's energy is remarkable. Not content with the direction of the Horticulture Internationale, and the publicatione connected therewith, he has eatablished at Moortebeke, near Bruuele, un vaste etabliseement for the ale of cut flowers of Orchidr. The name enterprising man of butines har, in conjanction with M August Dallemagne, founded at Rambouillat, France, a apecial eatablishment for the growth of Orchide.

Ancient Society of York Floniats.-The annual dinner was held under auspiciou circumntances on the 18 th innt, there being about nixty members prenent. Mr. Alderman McKay prenided, asd incidental to the observance of a long tomat lint,
it war atated that the Society intended to hold an exhibition in York during next year, contemporaneously with the show by the Yorkshire Agricultaral S ciety. Oit this occasion the National Carnation and Picotee Society will also be represented. The finances of the Society are satiafactory, notwithstanding that unfortunate weather attended the recent exhibition of Chrysanthemama, there being a revarva of \(\mathfrak{£} 210\).
the royal horticultural society.-The meetinge for 1896 have been arranged to take plac 3 as follows:-As the Drill Hill, Weatminater, on January 14, February 11, March 10 and 24, April 7 and 21. May 5. Jane 9 and 23. Jaly 14 and 28 , Augast 11 and 25, Siptember 8, 0 stober 13 and 27, November 10 and 2t, and Dscember 15. The annual general meeting will be held at the Sjciaty's officer, 117, Victoria Sireet, S.W., in the afternoon of Febraary 11. Tha Temple Show will take place on May 19. 20, and 21. A great exhibition of B itithgrown fruit will be held at the Cryatal Palace on October 1, 2, and 3 .

Veitch Memorial Medals and Prizes At a meeting of the Trustees held on the 20 th inst., Dr. Hoga in the chair, it was resolved to present a Veitch Medal to the following gentlemen, in recognition of their services to scientific horticultare, forestry, and arboricultare - viz, M. Henri L. de Vilmorin, of Parie; Professor Sargent, Director of the Arnold Arboretan, B itson, U.S.A. Mr. F. W. Barbidge, M A., Carator of Trinity College Botanic Gardens, Dablin; and Mr. Malcolm Dann, of the Palace Gardenv, Dalkeith. Is wal also resolved to place at the dispozal of the National Rose Society two medals and two prizes of £5 eacb, one to be competed for at the metropolitan ahow held at the Crystal Palace, and the other at the northern ahow to be held at Ulverston; two medals and two prizer of 55 each at the dispoasl of the National Chrysanthemum Society, to be competed for at the Jabiles exhibition of the Suciety; and one medal and one prizs of \(£ 5\) to each of the following provincial horticultural societies, Ulater, Dindee, and Derbyahire.

Quantity of Worked Trees in an American Nussery, etc.-As in many other commercial line the anount of trade done in ame of the Uaited States' nurseries in prodigious, greatly excseding anything that we can how on this side of the Atlantic, and as illustrating this fact, we take the following remarks from the National Nurseryman, a journal circulating amongat growers and dealers, and published at Ruchenter, N.Y. "The Franklin Davis Naraery Co. We have just atarted into what promises to by a eatisfactory fall aeason. Our ales, both wholesale and retail, are about the same as those of \(18 \%\), the mane quantity of atock being nold, but at lower prices. We nee no difference, however, in cost of production. There seems to be a atrong demand for Peach trees and Japan Plana. Prices appear to bs lower on evergthing but Peach; gredea under 3 inch in Applea and Para are exceedingly low, and there is no chance whatever for profit at such figures. We have made pretty heavy plantings in the spring of 1895, truating that there will be an improvement in the buines by the time the atock is marketable. We budded 650,000 Peaches thin seavon, and would have doubled it, bat ran short of seed. In 1894 we badded 1150,000. We planted 500,000 graft in the spring of 1895 , which have done well; and budded 50,000 Pear and 200,000 Apple atock. From the general outlook, we are fearful that we have planted too mach, and we are almont confident that nearly all the growers have done the name thing. There is certainly an over-production, and we do not believe that the 'hard times' are altogether accountable for the low prices. The only man who is making money now is the dealer: he buyn at lens than cost of production, and is able to get a fair price at retail. We have had a good growing veamon here, and ntock never looked better. We are digging 25,000 to 35,000 trees per day without our tree-plough. It is a little too dry to run it antinfactorily." Oar readern
will naturally wonder what a tree'd roots look like after being ploughed out of the land. Other report. in the ame journal show that the demand for Apples will run the stocks of saleable trees very low by the arrival of spring. From Topeka we learn that the autumn trade is good; a little above the average in volume. Northern and western planter are heavy buyers of Apple trees. Colorado trade gaining heavily on Ben Davis, Gano, Paragon, Arkansas Black or Jonathan. Northern trade atill inaists on Ducheay, Wealthy, Yellow Transparent, Wolf River, \&c. Cherry gives slow sale, price lower." Apparently the demand for Apples in a heary one in the temperate region thronghout the U.S.A. Those growers in Great Britain who have suitable varieties might participate in the trade in Apples, Plums, and Cherries.

A Curious Cabe of Natural GraftinaMr. Joun Cherse, of Amersham, furnished lately to the Royal Horticaltural Society a photograph and description of a case in which, io pite of the severance of a branch from the main trank of a Pear, the evered branch produce fruit year after year, commanication with the leave and trank baing carried on by means of a slender twig, which connect the severed portion with the main stem. Mr. Cheese's account is as follow: - "In 1889, an arm of a Pear tree (Vicar of Winkfield) which did not bear, wa: severed for grafting. By accident, the old arm wa: not taken away. Next year as it blnzsomed, I left it to what its vitality would come to. It produced and ripened two Pdars. As it seemed vigoroas, I said 'leave it another year.' It produced ten fruits. I then made a careful examination, and foond that a amall twig about the nize of my little finger had joined itself to the old branch on the top of the wall by friction of wind. It kept on bearing. Last year [it bore] fortp-two, this jear just uader thirty-fed ontirely by the twig now almost, or quite, an inch in diameter. The branch has been in perfect vigour ; and by the pencil sketch, you will ses what the feeder has done. Tha tres baing planted in an orchard, and turned over the wall (one branch) and trained down the other side (garden), makee it rather difficult to give a real idea of it

From the sketch and photograph, it appaar that the only direct communication with the roote or with the old atem, is by means of the inosculating branch. No doubt, as Mr. Cherses ays in another letter, the union wat effected prior to the everance of the branch. Ia any case, oo far as the fruiting branch in concerned, the entire anply of water must pase from the root upwarde, till it reaches the slender connecting twig, then downward to reach the fruitbearing branch, and then more or less horizontally. Tue quantity of water thus supplied is afficient to permit of the exparion of leaves, and these in due course manafacture, with the aid of the an-light, the sugar, starch, and other products required for the maintenance of the branch, and of the frnit, produced from it. Sach cases are more easy of comprehension, now that we have, to some extent, got rid of the "valgar errore" connected with the "atcent and deacent" called, of the sap.

SOUTH Africa.-A supplement received with an isnue of the Wynberg Times for November 30 last given a detailed liet of the clases arranged in connection with an exhibition to be held by the Port Elizabeth Agricultural Society in April next. That there in conaiderable energy at thin port in matter agricultural is clear from the fact that the uchedule include as many as 408 classes. Every kind of farm atock, including poultry and pigeon, will be rerrenented, and the same may be said of farm prodace, agricaltaral implemente, and Sonth African manufactaree.

The Cape Herbarium ie now ander the charge of our valued correspondent, Prof. MacOwan, the colonial botanist. The nucleus of the collection was the herbarium of ZRYFER , or what remained of it at the Cape, for a large proportion was deatroyed by fire at Hamburgh. The remainder of Zryerbes plante came into the pomemion of \(\mathrm{Dr}_{\mathrm{r}} \mathrm{PAPPI}\), and at
his death they were bought by the Government for £400-a num very far below their value. Dr Harvey made ute of the collection for his flord Capensis. After this it was much neglected, till Sir Henry Babrey paid a surprise vieit, and at his instigation atep were taken to preserve the plant in a proper manner. Prof. MacO wan's own collections numbering some 5000 pecimens, were added in 1881 and the collection is fairly well housed, except for the rink of tire, which is atill great. The value of a herbarium and library to the colonial botaniat, and those who apply to him for information on all worts of topics, in incalculable
"The Central African Planter."-Among the many encouraging aigne of progrent, we may note the publication, at Songani, Zomba, of the firnt number of this journal, which bear out the old adage that there is alway momething new from Africa. The pa blication will take for ite model the Ceylon Tropical Agriculturist. Oar fatbers, not to mention previous generation, would have been astonished to see such sign of development in a part of Central Africa not known before the time of Livingstone in 1855. Lens than twenty-five yeara afterward Coffee planting began, and in 1891 a million Coffee plante were in cultivation. Coffee, indeed, is the principal aubject treated of in this journal. Telegraphic comm unication with Great Britain via Cape Town was establinhed at the time the journal went to preas. May it be a good omen, and may our energetic plan ters not forget to occupy mome part of their time in mahing known the resources of the country, and in sending home apecimens of it flora and fana. Who can tell that some now-unheeded plant may ncteventually be more commercially valuable than Coffee. The editor is Mr. R. D. Hyndr, F.R.G.S.

The Surveyors' Inatitution.-At the ordinary general meeting, beld on Monday, December ?, 1895, the Preaident (Mr. Daviur. Watriny) in the chair, a paper was read by Mr. F. Puxcmamd (Fellow), entitled, "The Working of the Agricultural Holding: Act, 1883." A discustion followed, and was arjourned to the next meeting, and a vote of thanks was unanimously passed to Mr. Punchard for his paper.-The next ordinary geveral meeting will be held on Monday, Janaary 6, 1896, when the adjourned diacuaion on the paper read at the lant meeting by Mr. F. Punceard (Fellow), entitled, "The Working of the Agricultural Holdinge Act, 1883," will be reaumed. The chair to be taken at 8 o'clock. Notice if given that the Inatitution will be clowed from Tuenday, 2 th h inst., to Monday the 30 th inst.

The Royal Gardenera' Orphan Fund.The aual monthly meeting of the committee took place at the Horticultural Clab. Hotel Windsor, on the 20th inat., Mr. W. Marshall, presiding, there being a large attendance of membert. The Secretary, Mr. A. F. Barron, reported that he had received the sum of \(£ 105 \mathrm{l} 5 \mathrm{~s} .10 \mathrm{~d}\). from the trustees of the William Thomson Memorial Fund, the powert as to roting at elections in repect there of being accepted by them. It was resolved that the sum of \(£ 500\) ahould be invested in Canadian \(3 \frac{1}{3}\) per cent. atock. The following opecial receipts were announced:Mr. H. J. Jones, Ryecroft Nursery. Lewishaw, Viatorn to Chryanthemum-house, \(£ 10\) 12s. \(7 d_{0}\); Scottish Horticultaral Asociation, per Mr. R. W. E. Marray, Edinbargh, £5; Mr. H. Herbat, Stanmore, Kew, £2 11s. 6d; Mr. G. W. Camminn, The Grange Gardens, Carahaton, £2 10s.; Mr. W. R. Bloxham, Chesterfield, \(£ 2\) 2s.; The Market Harboro' Horticultaral Society, wale of flower at Chryanthemum how, per Mr. G. Green, ecretary, £1 15s.; Mr. R. Ingleby, Chesterfield, \(£ 1\) 78. 6d.; Mr. C. Gibeon, Morden Park Gardent, £1 1s. Td.; Mr. J. McKechne, Holloway, £1 1s。; Mesura, R. W. Proctor \& Son, murnerymen, Cbesterfield, sale of flowers, \&1 1s.; The Croydon Chrysanthemum Society, ale of Clowere, per Mr. W. B. Beckett, £1 1s, ; Kinguton Gardeners' Association, per Mr. A. Dean, £1; Mr. W. Bates, Twickenham, 18s. 6d.; Mr. F. Miller, Northdown, Margate,
188. 2d ; Mr. T. Newbould, Cragg Royal, Leeds, 178. 6d.; Mr. A. J. Brown, Chertey, 15s.6d.; Mine Enoily Roger, Farnborough, 13s.; Mr. W. H. Diverp, The Gardens, Belvoir Castle, 13s. \(7 d\).; Mr. John Day, Galloway, Garlieston, \(12 \varepsilon\), and Meantr. H. Cannell \& Son, Swanley, 10s. It having been announced that at various times daring 1896, nine children would cease to be chargeable to the fund, having reached the age of fourteen yeare, it was resolved that ten children hould be elected at the annual general meeting to take place at Anderton's Hotel on Febraary 20 next. The credentials of a number of children were examined and panaed. A cheque was ordered to be dravin for the children's allowances for the first quarter of the coming year, amounting to £195, there being sisty children entitled to the benefit of the fund. A hearty vote of thanke was passed to the chairman for his services in that capacity during the year; and Mr. Marshall, in acknowledging the vote, thanked the committee for their support and attendances during the year.

The National Amateur Gardeners' AssoCIATION. - The annual dinner took place at the Gaildball Tavern on the 18 sh inat., Mr. T. W. Sanders, the Preaident, in the chair, about eighty person: boing present, including everal ladies. In proposing anccess to the association, the chairman said that this was the filth year of its existence, that he had been ansociated with it from the first, and was well acquainted with its advantages. It was able to show that it had done good work, and therefore juatified ita formation. There is an increase in the number of ite country members and affiliated societies; both together there are probably from 2000 to 3000 persons connected with the anociation. The association afforded opportanities for those amateurs interented in gardening to meet together and exhibit their skill an cultivators ; and in this way they were inatramental in intereating others. Nothing in the way of an amociation worked on buniness principles can be perfect, and there were imperfections in their procedure, but the conductorn were alway anxious to receive angentions for perfecting their organisation. One atisfactory feature at their monthly meetings in the collections of flowerp, plants, fruitr, and vegetables brought to them, and which are closely inspected by the members. Points were awarded to meritorious exhibita, which carried with it a Certificate of Merit; and when a sufficient aggregate of point wat reached, a Silver Medal wan awarded. Another feature wat their conversazione, which proved so antisfactory that it will be continued on a larger acale. The President paid a tribate of acknowledgment to his brother-officere and committee, as it was mainly through their exertions they had scored so satisfactory a succes. The distribution of moneyprizes, medals, and certificater then took place, and a accession of speches, interapersed with music, brought an enjoyable evening to a close. It was annonnced that the next monthly meeting on Jan. 7, Mr. R. Deas will give a lecture on "Hardy Border Primrones."

Gardenera' Royal Benevolent institu. TION, ETC.-At the meeting of the Committee of the Wolverhampton Auxiliary of the Gardouera' Royal Benevolent Institution, Mr. G. A. Bismof, the chairman, handed in his list of aubucriptions which he had himself collected in the course of a few weeks, amounting to the handsome aum of \(£ 70\), including twenty-six annual ubacribers of one guinea each. It may be mentioned that benides, Mr. Bishop, in conjanction with Mr. G. Bradeer, Werga Hall Gardene, collected within twelve monthe, £146 for the Wolverhampton Chryanthemum Society.

Shirley, Millbroox, and Freemantle Horticultural Society.-The thirtieth amual general meeting of the above was held at the Shirley Hotel, Southampton, on the 17th inat., the President, A. Bagcow, Eiq, presiding. The Secretary read the report and statement of accounts, showing ateady
progren of the Society. The entries at the late how numbered 600 , an increase on the past, and the balance in favour of the Society was £35. There was a considerable increase in the attendance, and this enabled the committee to make oo good a financial report. The adoption of the report and account was followed by the re-election of the president, vice-president, and officers, and a ballot for a committee of twelve, for which there were twenty-four nominations. A vote of thank to the prefident, the press, and the retiring member: of the committee, \&c., clowed a very anccenful meeting and year.

Society of Jersey Gardener8.-At a meeting of this nociety held on Thuraday, Dec. 12, the programme was of an unaual character. Mr. A. Flatters, of the Manchester Microcopical Society, gave a microncopic lantern exhibition, being the first of it kind given under the arspices of the Society. Thene slides nambering 110, illastrated the internal structure of plantr, the botanical featares of each he pointed out. A number of photograph of horticultural interent, taken by the demonstrator himself apon the island, also formed part of the exhibition. Meetings are held monthly, and the Hon. Secretaries for the coming year are Memin. E. Reeve and A. Smith.

\section*{PLANT PORTRAITS.}

Caladium liliputense, Rodigas, Illustration Horticole, December 15. Like a dwarf form of C, argyrites.
Cosmos sulphereus, Garden and Forest, p. 484.
Pear Françor 3 Hutin, Bulletin d'Arboriculture, December, 1895.

Rose G. Nabomand, Tea; Gaten. December 14.

\section*{PLANTS AND FLOWERS AT TRENTHAM.}

A grand diaplay of winter-flowering plante in to be found in the houses at this place, the demand being very great. The houses at the present time are a chsrming aight, hundred of plant of the brilliant Poinaettia palcherrima, with enormona bractr, are aplendidly grown in amall potw. Quite as dazzling are the plante of Euphorbia jacquinieflore, whose flowering sprays are such as one seldom seep, especially in such amall flower-pote as these plants are grown in, namely, small and large 48 's. In these the plante maintain their healthy foliage right down to the rim of the pot. Plants of Salvie in variety, Primula, Cinerarie, Roman Hyacinthr, Talipı, Narcisule, Lily of the Valley, \&s., are grown by the thounnd, and great quantities of these are now in perfection. Beaides theae are Gesneras in variety.
The Orchid-houre are likewise gay with flowering plants, and in the Cattleja-house several hundred blooms of C. labiata are expanded; Dendrobinm Phalænopair, D. Wardianum, Lælia ancepr, are there in great quantities. In the Odontoglosamhouse dozons of aprays of \(O\). crispum and \(O\). Pescatorei had open flowerf, with numbers to follow. Of Mandevallias great numbers of fine healthy plants were noted, which could warcely be excelled for luxariant growth, many of them in flower, inclading a grand batch of the pretty M. tovarenain.

A houseful of Tree Carnations and Margueriter, the picture of robust health, was remarked with hundred of expanded flowers, connisting of all the leading varieties. The firat-named are invaluable for their fragrant flowert. A grand lot of lateflowering varieties of Chryonnthemuna are mout useful plante at this seamon, and the plants here are now carrying enormous quantities of blessoms good for catting, \&c. Rhododendron hybridam, Deatzia gracilis, Azalea molliv, and Lilien, are extennively forced, and these will follow thone already named. The healthineat of the foliage plants show that their cultural requirement are well understood; and plants were noted from amall things in thamb-pots upward to enormoun speciment, their use in the ducal manaion being namerous. The Bimboon are great favouriten here, and deservedly wo, for their light green, graceful foliage, and their adaptability for decorative purpones in the dwelling. In the

Irnit houses good crope of late Grape were atill hanging on the Viser, and splendid fruita of Tomatos. In the early Peach-housen the trees are just on the move, and the early Vines look very promiaing.
Great improvementa have been made by Mr. P. Blair in the pleature-ground. Many ornamental trees and ahrubs have been recently planted-indeed, the place hae undergone a great tranaformation, and is atill being improved, no that it will aoon match any exiating in the country.
The kitchen garden in well stocked with vegetable to meet the large demand made apon it teanarces. Many fine new building have been arected, inclading one in the village to merve at a lecture hall, with rooms for billiards, the library in connection with which is a very good one, the whole forming a great boon to the inhabitants of the place. The Dachess takes a great interest in the well-being of those mployed upon the eatate and the villagerp, as the Dake of Satherland does in horticulture. Tha garden show careful cultivation and attention to detail in every part, reflecting mach credit on the head gardener. Alfired Outram.

\section*{JOHN EVELYN.}

\section*{(Concluded from p. 577.)}

Evelin differed from mont of the savants of his day in the dislike to be ranked an an athor. The eatablishment of the Royal Society was a proof that the learned men of the late seventeenth century desired a common meeting-place, where their theorien and diacoveries could be expounded to men of kindred tastes. The aciantiat and the antiquary were not regarded with mach reapect at that period, and their apparent eccentricitiea were made the butt of mach chesp ridicule, and that ridicule, when enohrined in the "catchy" line of Samuel Batler, had the diaagreable tendecey to be accepted by the general public at truth. John Evelyn was too much of a man of the world and of a diplomatitt to indulge in the little personal vagarie which at that time, and for a long period afterwards, characterised the stadent of abstract thing. John Evelyn's appearance as an anthor wat not, as we have indicated, the outcome of a perfectly excaable vanity, but a laudable desire that others might profit by his experience. Ilis garden wat bis great hobby, and he found it so full of pleasure and inatraction that he wished other to participate. Botany, like chemiatry, was gradually pmerging from being a mere art of empiriciom, and Fivelyn did more than perhaps all his contemporaries together to compel the recognition and acknowledgment of these two ciences.

Evelyn's firat pablication was ianued in 1649 , when he was twenty-nine yeart of age. It was not until nine yeare after this that the firat of hia long and valuable series of horticultaral pablication made it appearance. It is a translation of Le Jardinier Fraņois, which appeared at Paris in 1651, and ran into six editione in nearly ae mady geara. It was signed by R. D. C. D. W. B. D. N., whatever these initials may or may not mean; the real name and dignity of the author being N. cie Bonnefone, valet de chambe du Roi. It was "transplanted into English by Philocepos," and publiahed by John Crooke at the aign of the Ship in St. Paul's Churchyard in Auguat, 1658. Evelyn was peranaded to make thin tranalation by his friend Thoma: Henahaw, to whom the work is dedicated. This book, which Erelyn regarded, and rightly 0 , an the beat treatise then extant on gardening, is an exceedingly intereating work to the literary antiquary. The catalogue of Pears ( 315 in number), Peaches (37). Applen, Plums, Chonies, and other fruit are exceedingly carions, The book is a duodecimo of 319 pages, with four platen by A. Hertock: it was an unquestionable anccems. A wecond edition appeared in 1669 (with Evelyn' name attached to it for the firat time), to which wat added "The English Vineyard Vindicated," by John Rone. The third edition appeared in 1672, and othern in 1675, 1676, and 1691.

Daring the interval which elapsed between the first and the second editions of the French Gardiner, Evelyn wrote and pablished his mont celebrated work, Sylva, "or a diacourse of Foreat Trees and the Propagation of Timber," to which is annexed Pomona, "an appendix conceraing fruit-treen in relation to cider, 166t." This was reprinted in 1669, and in 1679 , with considerable additions; again in 1705 with atill farther additions and im provements; and finally in 1725 , with other works on gardening-all these were in folio. Dr. Hanter, of York, edited and annotated an edition in quarto in \(\mathbf{1 7 7 6}\), with a number of beautifully-engraved plates by J. Miller; of this a second edition appeared in 1786, and a filth in 18:25. Dendrologic, an ebridgment by J. Mitchell, was issued in 1827. A very long article might b3 written on this most interesting
as I may jastify (without immodeaty) from the many lettert of acknowledgement received from gentlemen of the first quality, and other altogether atrangers to me." Evelgn was much disappointed at not recaiving the appointment of Inspector of the Royal Foreste, bat the " mighty man, then in despotic power "conferred it upon another "who had seldom been out of the amoke of London, where, though there was a great deal of timber, there were not many trees.'

Evelyn's next book, Kalendarium Hortense, or the "Gardeners' Almanack, direciing what he is to do monthly throughoat the year, and what fruita and flower are in their pime," was firs published in 169t, and in about forty years had run into ten editions. The British Museum copy, 1666, is intereating in having a presentation iascription to Lord Arlington in the author's handwriting. This was ant


JOHN EVELYN.
and valuable work. Sylva wat the outcome of an addrese delivered at the Royal Society in October, 1662," upon occaaion of certain quserien propounded to that illastrious Assembly by the Honourable the Principal Officers and Commiasioners of the Navy." The vitality of the work, seeing that it was the standard work on trees for over a centary and half, doen not need mach demonatration. Dr, Hanter tells us that coon after the pablication of Sylva, which made ite appearance under the auspices of the Rojal Society, "the apirit for planting increaned to a high degree; and there in reason to believe that many of our ahipe which, in the last war, gave lawn to the whole world, were constructed from Oakn planted at that time."

In a letter to Lady Sunderland, dated Daptford, Auguat 4, 1690, Evelyn telle un that Sylea wan a success "infinitoly beyond my expectations," and that it hae been "the occasion of propagating many millions of useful timber treen throughout this nation,
the firat kalendar of gardening operations published, bat it was one of the earlient which embodied the long practical experience of an able writer and close observer. There can be no doubt about the fact that this work had an extraordinary inflaence on English gardening, which indeed it may be asid to have revolationised. The origin of the book would appear to have been entirely private-a mere note-book of work to be done in each successive month, with no thought of publication. Writing in 1690, Evelyn informed Lady Sunderiand that it was written "almost forty yearen since," so that it more properly belonga to his earlier worky, although doubtless it containe the reault of his later experiencen. At all eventa, it was an epoch-making book, and a clasnic in ite way.

Nearly thirty yearn after the Ralendarium first appeared, John Evelyn asisted in contributing yet another volume to the art and practice of horticultare. Thin time the work, The Compleat Gard'ner, was a
tranalation from the French of J. de la Qaintinie, by George London and Henry Wise,* "to which is added his treatise on Orange trees, with the raising of Melons-omitted in the French edition, "and translated into Eagliah by Evelyn. This pablication, which was in folio, with a number of plates, had a long lease of popularity, to which Evelyn's "Addres to the Nobility and Gentry" contributed not a little. Evelyn's last work was Acetaria. "a dincourse on Salleta," which appeared in 1699 , and of which a second edition was called for in 1706. Mention may be conveniently made here of a very interesting "letter concerning the damage done to hie gardens in the preceding winter," which is published in the Philosophical Transactions, vol. iii., p. 28, 1634; and it ahould not be forgotten that it was in conequence of a recommendation of Evelyn's, in his Fumifugium, 1661, which dealt with the inconveniences of the air and umoke of London, that fragrant plants should be grown in nurseries, \&c., in the low ground near the metropolia, that the Lime trees were planted in St. Jamen's Park.
Evelyn himself tells un that he delighted in "a
a peculiarity known an heterosciam, or metorciem. Daring the aummer monthe, examples are frequently to be observed representing various geners, bat the majority of heterœaious Uredineæ belong to the genus Paccinia, and in this group it is a noteworthy fact that the uredospres and teleutoapores in all the species deacribed are only to be found on mono-cotyledons-generally granees, edges, or rushes.
A somewhat remarkable exception, however, has fallen under my notice. The species referred to it Puccinia Bintortæ, Str. = Paccinia Bistortæ, DC. which is classed in Plowright's Monograph of the British Uredinece and Ustilaginece under Hemipuccinia, a group that is supposed to be without meidiosporen. After a long series of experimentalcultures and observations during the past three yeara, the writer is convinced, beyond the alighteat doubt, that this species does not only possess æcidionporen, but is heterœcions in character. In December, 1893, a short series of observation were briefly detailed (Grevillea, vol. 22, p. 45 to 47), which it is unnceeseary here to repeat, beyond remarking that abeequent calture have fally confirmed previous obervations.


Fig. 133.-saybs court, jomn evelyn's residence, depteobd
cheerful gaiety; affect and cultivate variety; the universe itaelf were not beantiful to me without it ;" and those mont conversant with his writing will readily admit that cheerfulness and gaiety were amongat the most atriking characteriatics of his nature. His truly was a character "full of sweetness and apirit;" and the whole of the stirring period through which Evelyn lived produced no truer Eaglish gentleman.
His portrait, see p. 772, was painted on aeveral occasion. Firat by Cbanterell, in 1626; by Vanderborcht, in 1641 ; by Robert Walker, in 1648 ; by Sir Godirey Koeller, in 1685 ; and again by Kueller, for Pepy, in 1689. W. Roberts.

\section*{A REMARKAble PUCCINIA.}

Of the various parasitic fungi incladed in the group Uredinese, few are more singular in their mode of development than thone apecies which have the curious habit of apending part of their exiatence on one kind of host, and continuing it upon another at one time suppowed to belong to a different genur,

\footnotetext{
It may not be out of place to state here that the present Writor contributed to the Gardemers' Chroxicls of March 18 , Gardeaing 14. Worze a paper an "London and Wiea, and their
}

The fungus firat maken it appearance during the early part of April on Conopodium denadatam, and posiibly it may have hitherto been confused with Acidiam Banii, DC., from which, however, it is clearly distinct, and may be deacribed an followa: Esidionpores; Pseudoperidia in amall irregular cluaters, sested on orange thickening, mostly hypophyllous, on eegments and veine of the radical leaves, rarely on the cauline leaven, more elongated on the atems, and petiole nearly fiat or ahortly cylindrical; mouth narrowly contracted, walle rather thick, margina fragile, breaking up into white oval cellalen evenly covered with minute wart 20 to \(30 \mu\) in diameter. Spores globose, finely verrucose, white, endochrome, with a slight tinge of yellow, 15 to \(20 \mu\) in diameter. Oa the radical leaven and petoiles of Conopodium denudatum April and May.
In the spring of 1894, weveral plante of Conopodium denudatum, abundantly invaded vith the Ecidiam, were grown in pots ander glans for the parpose of testing whether the ecidionporen were sacceeded by any other apore form. Bat no farther reaults ensued, and the plants made an appearance in 1895 apparently healthy, and remained free from the fungne, showing that the myceliam in not perennial. In like manner, in!1894, planta of Polygonum Bistorta, bearing the teleutonporen wert isolated, and
in 1895 the plante came up healthy, and remained clear of the fungui throughout the eesson, and evidently the mycelinm also in this cate is not perennial.

Germinating wcidionpores were applied to the leavea of Conopodium denudatum and Polygonum Bistorta on May 1, 1895, bat not the slightent result followed on the former, whereas on the Yolygonum aredonpores made an appearance on May 15. Daring the past apring the fungus wat observed to be extremely common in the neigbboarhood of Halifas, and a number of planta of Conopodiam denadatam growing among Bistort, and bearing acidiosporen, were "marked," and for a fortnight were repeatedly vinited, bat no other apore form appeared on the earth-nut, while uredoapore ahowed abundantly on the Biatort:

By means of the uredospores the fungus apreads rapidly, reproducing uredompore in about twelve days. The uredospores are invariably nucceeded by telentospores in about the ame time; for instance, in the May 1 experiment, the teleutospores made an appearance on May 27. Although numerous observations were made on the teleutospores during the summer and autumn, in not a aingle instance was an attempt at germination noticed. Daring the year, germinating recidiospores and uredoupore were applied to other mpeciea of Polygonam, including \(\mathbf{P}\). avicalare, \(P\). cuapidatum, and \(P\). viviparam, bat without any reaulta, although the latter in given as the host in various worke. It is intended, however, to continue the experimente during the coming pear. The æcidioaporen were firat found by my friend, Mr. James Needham, at Hebden Bridge, in May, 1898. H. T. Soppitt, Halifax.

\section*{THE WEATHER OF 1895.}

The year which is just drawing to a close has been a remarkable one in many ways, and, from a gardener's point of view, may be looked upon in nome reapecta as one of extremes.
Jamaary commenced with a cold N.N.W. wind, which continued for some dayp, bat there was not much froat till the 10th, when the temperatare fell to \(14^{\circ}\). On the 20 th it rome to \(49^{\circ}\) in the shade, but on the 23 rd it fell to \(10^{\circ}\). There were only three nights in the month that the temperature did not fall below freezing-point, and thene were on the 17 ch , 20 th , and 21st. There were about \(3 \cdot 21\) inches of rain, including melted snow.

February was a dreadfully cold month, there being only two nighte daring the whole period that frout was not regiatered, and thene were on the 22 ad and 23 rd , when the mercury fell to \(33^{\circ}\) and \(34^{\circ}\) reapectively. The coldent night wee on the 5tb, when the thermometer fell to 0.5 . There was an unuavally amall amonnt of rain- 0.78 of an inch only-the greater portion of which waa melted snow. On three occasions only during fifty years bat there been lean,

March. - It was not till the 9 ch of this month that a general thaw aet in, but the aun was so bright in the daytime, that by the 13 纤 the ground was in good working condition, to that many of the garden crope were planted by the end of the month. Leax than 24 inchet of rain fell, the greateat amount being on the 27 th.

Aprih-The sarly part of this month wan dry, and very auitable for outdoor work, though the nighte were cold, but on no occasion did we register more than \(6^{\circ}\) of frout. Rsin was pretty plentiful, during the latter part of the month; so aleo were alage, for I never remember meeing such an abundance. The total rainfall was \(2 \cdot 14\) inches.
May wal a very dry montb, rain falling on aix occasions, and this only to the extent of 14 of an inch, this being a trifie leas than in the dry nummer of 1893. There were aeveral hot days on which the thermometer in the shade rose to over \(80^{\circ}\). Apple tree were in bloom very early, the firt with us expanding on the 6 ch . The coldeat night daring the month was on the 10 sh , when the temperatare fell to \(31.5^{\circ}\).
Jume wan also month of unusual drought, and though the nightm were cold, the dayn were warm, as there was no occation when the maximum did
not exceed \(70^{\circ}\) in the shade；the hottent dayl being the 9 ih and 24 th，when \(87^{\circ}\) was recorded on each dates．Oaly 36 of an inch of rain fell daring the month，this being the amallest amount for Jane registered since 1870 ．
Juty，ap till the 18：h，wa dry and warm in the daytim \({ }^{\circ}\) ，though the nighte wers cold．Oa the 16 sh the thermometer foll to freezing－point，while on the following day it rose to \(と 9^{\circ}\) in the ahade，bsing oas of the hutteat daysia the whole year．Between the 18 h and the end of the monith raia fell to the exient of 350 iaches．The hottent night war on the 25 st，the miaimum being 61.
Auguat wit ralay sill the 15 sh，with warm weather both night and day，after which it becmene dry and hot，the bottent day being the 22ad，when the ther－ moneter registered \(8 t^{\circ}\) ia the bade．The amount of rais which fell wat 242 iaches．
Sepfember was an anasaallp diy montt，there being only two daje on which there was any regintered， ad these were on the 7 th and 11th，the aggregate fall boing 73 of an iach，which I thiak is the lesst amount for the month since 1865 ，in which year there wa oaly 02 ．Oas of the brtest aighte was on the tith，the minimace baing \(50^{\circ}\) ．（）． 1 toa oces－ nione the uscimum reached wat ovep \(80^{\circ}\) ia the ande．the highest being on the 7 ch． \(86^{\circ}\) ，and on the \(25^{5} \mathrm{sh}, 83^{\circ}\) ；on thin la：ter dato \(117^{\circ}\) was reached in the ann。

O．tober wh，in some retpecte，a peculiar montb， for，wish the exception of the firat，which wan rery hot and dry，rain foll more or less on every day till the ybr，alter which it was beagtifal weabher till towarde the end．The warmest night was oa the 6 i ，when the miniman war \(58^{\circ}\) ；and the coldoes way on the \(23^{\circ}\) ib，whea \(18^{\circ}\) wat regiatered．Ruit fell to the extent of 277 incties．
Soombier was a very wet month，rain falling on tweaty－one daye to the extent of brge incher，which amoses hat only besn exceed of on thras occanion withia the last aixty yourt．Tais is all the more remarkable，for on bo cccasion wat there more than ＇ 81 regiateres，and this．wat on the 6ib．Not once daring the year have we had a sood in the river， which rant at the bottom of the gardea．The warmest day was on the 17 th．when the maximam reseted wat \(62^{\circ}\) ．On only four ocecviona did the tomperature fall below fresziog－polat，she collest night beiar the \(18: \mathrm{b}\) ，when \(25^{\circ}\) was rescbed．
Dsombor，so far，has been mild，and with she exesptioa of the 11 th ，when the temperstare foll to \(18^{\circ}\) ，the weather han been fairly milld．Oa the 15 ： the maxiwum was \(54^{\circ}\) ． \(\mathbb{E}, \mathrm{O}\), Primen，Mil．Sumer．

\section*{BULBS IN WATER．}

Ir is addoaiag to note in puaing through crowded atrowte of strangling villages how may are the amestar growers who will be dismppoiated of shais oxpectad hurreate of Hyacinthe and ocher balbe to brigtban and swsetea the home at this ermon．Tae balba，the glaves，the water sre there ia abandance． bat the 0 jwere will not be ia blomow to welcomes ocer fantly gatharing of the yaar，and that is the worst of it，though wot quike all．The rawoo is mot far to stak，sor difisale to wroid．Quite the evatrary． Hare it is．Tagasads of balbi areset ia water；sad in the light，is a dormant wita．I have eeen bacches of anch parched on miadow－sills，sholvas，and the asrower askngal bstwoen the appay sad lower whow．Withis the lath month or wix weeks a wory fow of them balbe have asde anch progrees，asd oot a fow of shea are alrosiy rottin．If cithere，the op：have man far alased of the roote，with the iatritable waksaing＊ffecte．

A tow balbe of grati ntrength of conctitation hive mast atart，at the top and bowtom，determiaed， wis wars，to ma fuir at bath entr，wal ander vary
 prosity of growith buswas root an t top，or rathar tha precadeaee of root over top－growth，esoaot bs wala－ saised ie the fall glare of manay wiadow，nof erm through Novacejer or D senabor loge．

This iv a meccter sol asraly of shwory，bat of
obervation oa the part of those culcivatora who ema read the sigas of diatress ahown by the balbs prowa in glases in our window，and which are resdily iaterpreted．Uader ach anastaral condition it in no woador that growth is laggand and tha colour of the leaves and dowert poor，at in common ia Hyaciaths and other balby growa ia water，whose roon are expoued to the lighb from the firat．I have observed that the graater the loss of greea in the loaves the leat ivory－waite the roose become． Bit there aro other causes for the lack of verdape and csasequastly vigoar ia balbs in water thas the probsble diversion of chlorophyll from the leared and fowern to the roote．

The lack of colour and the slaggish growith often ariso，of are greatly agrapabed，throagh the tops bsing in development abead of the rooto，which is at exacs reparal of the propap opder in ment placte． Balbs are partial excoption ia harlag a larger atore of food that in other plazte．Treated ever so ma． wisely they make efforte，more or lest etrong，to grow and aufold thair Aowert．If，howevar，bop－growith goes ahand of roof－growtb，the gradal exhaastion of the stored－ap sapplios cansen wenkoess and compirs． sive failare of the developenent of leaves and fuwers．
Bus balbi are ofsea drowaed as well an lighted iato failare by placiag their base into the water inotesd of keoping it a friech above the sur－ facs．Dremsob balbs of Hyaciathe，Napcisap， \＆s，wat motbiag till poots have beea made， and these tho balbs will enit at the right sime． The tops shzuld，daring tho flest atage，bo kopt dry， and by this simple differeace of treakaons of the sop and b．ston of the balb，the poot will start late growth and do fairly wel＇，even in glasees expoed to canlight．

Tu have perlect balbo in glasest，vasup，baskels，太．．．the balbe shoald ba kep；eyol and is the dack for w moath as the lastl，so an to caun soak araelh Heriag done this．ad when the leaf－gronsh has pathed apwards It so 2 iachep，and the rost are fresty dovalopiag．growth will go oa all right withous chack，if they are brought iato the light

Balba not growa ia glasens from the firet shoald bo corwed ap with with ephagaan mes，Cres． tibro rolate，feaf－moalf，\＆s．，natil poris form thea wash thmo clann，wearly fill the glasen with waber，sad places she balbe over it as described above． A＇sar blis chane from a3ev，op eapth．so watar is －iffeced，twiliathe should rale for a tion－－tay，six daye－bofore fully expoviag the balbe to light．

For lack of attantion to each apparatily mioule deckite of ealtary，many amatears have failed will Datch bulbs，and many coased to cultivate theos， baing deacted by their leck of nocees．As a eligtt protection agaiatt the mild rays of the wincar san， cone culsnvatort mate use of colosped glases． Coloured ghas is warmar thac clear glaes，bat the hasvily－coloured blase and greens dateat the chief objecte of water－caltare through hiding ap the avaller ad more latereatiag ranifiastion of the roots．But the sabjest of ylanes，bsakets，Fsewe for the oulture and display of aingle balbs，and balbe or oflor plante il growae requiron artiatic and prac－ the al colablos－spase fir the srastewat of whioh it sob cow swiflably．Epery Blem ated water－atal ebould bare suff rivul whint ani brealth of bses to prevent th bsiageswily ovrtaraed，and is ought alon to be woll provided with ervetal arolos，platacian． or other optermenta at to afind the aesomery sap－ port to tho rojth leaves，and If）wor－viang，wibhoat ties or espport．the lattor being cesally so fienfoctive \(a\) thay are aity．

Whas oup Eracinth－rinexst asel batate beoma min beakifal and variod it desion，wo sha＇l haw pot ouly a eraat divelopmant of the caltare and dosprative ereste of ordinary apecies of belbons plast，bat of masy ofher plate in water．For maty yeurs I have tstwa every opoortanity to stady gardeaine in oar geent borticultaral centres asd daring all thew your I cancot renember mostisg with oue record－makias illatration of equa－culbart． or ite ried，sotol，froeb，sel blowreing officto，in the

Coatre Avanue，Coveat（iardev，or insach Gine pro－ viaciel markets an thou at Manchester，Liverpool， Birmingasm，Glasow，of Eliabargh．D．T．E．

\section*{home Oorberpondenoe}

REORGANIBMG THE ROYAL HORTICULTUAAL sociery．－If hat once mandicant and satbachve thas there aboald be simaleaneone editarial sug－ geation on this abject appeariog in the leadiag horticaltural papers，and also notes on the same matler fruaz other eurues．Tho obvioas iaferencer therofore，as，tant bla doaire for the reorganiantion of the sociesy is a wide－spresd ad a growing ons． As wo are jet several weotey from the aneusal general meotiog of the socieby，the provent moment seome to bs a pecaliarly propubtur oge for discusbing a mabler of eust rical mapostaze．l coatian tayenti excla－ arvely to shat portion wich relates tu the socieby＇s c committena，pertape the most importat of ay that se likely to be discamed．To evideat deaire abowis to have the operatioas of these commstemes milaly exteoded a ay be regarded at aignilying bigb apppe＝ ciatioc of she worl parformed by ctow bodies，oaly is is desured shas suct work abould nos be localitad io Leadoa，berehould bediffa sed throughoas the cjuatry． Taub，of coacse，with tae belp of sboleadiaz pro－ viacial sociesiesmay bo duas；bas btere are ditiosalsien． all the atce．bo bs macosalered．At bo bow it may be doan firsk，the Cuancll cala lakrace beo Secrucary to savile captata of she leadiag proviectal ectection to

 －boald be pepeosencairva of wiln dieirlcete Kat mugb have oep，Sastex will fin！oan as Br－gheon．
 as Tesocos and Buth，Berte as linadrag；choa goiag sorkeard．Birmiagham．Manchesier，Botverpool． Saremebary．Yorts．\＆2，are bat some of chene bofies
 represossatives．The proviacial eocieby affliated phall Mat be whel to comblase loce or brach enoulumy for forre（macindia oichide） ad frous and veighabin parponet Taese cian of the diatres of cosaty，mo one being a member of any two conevicheot，and to thete bofien the camecil of the RByal Horticulcaral 8 xeiesy sbould aave the power of croptian，if noested，at lessi theo otber
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 ghould bare lall Dimer to mrask awarde of merit to each chinge el blay win mestom worthy，ox pro－ riown tetlige ecel ma award．and they boveld be held to be swapJe of sae Higal II rrticaisaral Society． Firat－dase certhbsabee thoa dow graved oely by the entral comaitbees．All shaes branch comeitcone sbould anet once a mosh st leavh io cota＊contral place providet by che losal seciety：thay should keep fall recorda of simir procoediont，and，wo far as poseibls，aske deveriptive motes of sabjects placed bufore theas，whick sighs be embodied is the 8ociety＇s journen，and iswed frequantly．Tuis would powerally be more radable－atior chat is fownd in anay of the loug elsbornion papert publisued on sakjecte slrealy well chrwehad out in the wardoniag pupew tho Nw，wit weem vacoth enougb：but now conue tho difficalty．II iw are shen braneh ente．
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\section*{comreantmemume I aks grealir chaged for}
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 cithimbed to lbian or fuar bade，ita bloume are ex－
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notato cultune 1 heve thie yanr cultivatod
 ＊＊．and Efiy virioline of S．tuberceam，corive from lerague？sed Cbul，whel M．13．de Vilmorin ant wa．Wits the exceptioce of tbe three firal epmeies． －hic I I rucoired frum tbe Breat Bolasic coarden． giste eor bow diferent ie the comparion betwen
 Alph de Caodolle only knew S．Maghe dried or illa tratad，wlan the devalopmest of it is atediad con－ cerronily with that of \(A\) esberoeven，it is difficule to ＊ot it it Lbe ancinal type of the lattar．Mr．Arthat fothon may be tald that thevont the bifimolty af
 mo by the hasd acheser of the Breat Butanic isardor．I beve thic goer grown the tebere of theep
 abtetend Nante wbicb sowared wall and bore tubere itwiow al largs of thoe which Ihad planted．The ondet of the pote perested the rhocomest frem was． dering too sach，conencueatly the tabste were more dowaleped．and，to interesting to sote，the cetbering in of oven the emaliset of the tabert wae ＊enil then \(I\) fimer，Pani
cfinwo of the mowe of awothtiad cuavio．ens Jha／）－The（puning of fowere in unoil reacep new showly．It ie intercatim，thes， La berce to toing es exception to this relo，thoes of IT curve ome wilib mey be asid to open inturelew ocely：the plomomeno oceure in Jaly， aboet 8 eclack to the eventive in Aycoet，sboet －clock，ia septenbem，about 6 or 650．The four agmente of the caly bria to uspurate till they onily coters ot theit extremitier，and suddeniy they aven to vield to the provere of the coralls； they becone detached，and epriee buck sharpiy on the calym－tube atd the foer petala open repilly．The stasene appest lighly infected rousd the will．whieh hoare a craci＇orm atigues，and alowe tho milia wirodv owaped．The 1 benowenon of this unden aponixe，milh can matily be poted on the plante te ewdep．cen bobwred oa tetachell bracbew of the plant．and owe on cut fowert or thow puntiolly of conmern ir inemared in wotor．Iecivione mado in the
 infe the calcienl tabe，do mot mem to provept tholp if Absing．they maraly remant it．This is attribetable on the brepototrie setion of tho sir，or thic iu the mave repid in propertion at the bot of tho doy hae en popar and the poalime precese in the evoning
 － 1 l Co ettair in sprine，tufa with tho redical leave a oulot is ebtate blomm in Jele，the mesth mout fotmerbli for wely，E．Roo．Pain．

Fil two morato anowno im meitith
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every day；moch of the apparent well－duing and boomion wat only papar and ink．The Dacan－ hande：It cont \(4(),(x)\) dollars，and now on vifer at luviare ；this was tbe cont of the site atone．A bluck in Victoria that cont of the site alone：A （．ter at G，Mk）dole：Io Waibiguton Siale I＇S．A．
 （fferer，and cannot be wold at 6 dullare（2fon）per Dobw，Manowier，Docember 14， 1895.
rabbit－pmoof plante－In addition to those －Dumerated by your corretpondentr．the American Kupbery，bott ibe punk and white varietiep，may be monduribed．Thbe plent increase rapidis，and are very efirche．when in bloom．Abother plant I have Dever ween allacked by rabbits is Gailtberia Shallor －protty，dwart，evergrean thrub，very auitable for arowige ander the shade of treen．If fowers in May and Jape，and the fruit is mach liked by phessants． To thow contemplating planting where sabbile abowed．I would reonmmed the following：－Dog fowering mone），the leat a mot effective ohsub when laden wits ite bealiful frait in the ateme：with clampe of Ihbodadedorone and Gaalleria by the mides of whe and rides．I think aportemen will fod that wioged rame will frgquent covert formed by theee deciduose ahrobe is proference to large maves of Moododendrons，and the birks an well an ground－ gane are easily disiodged when booting Such Finale se the comenom and Portagal Laurel，Besberin Mahoni Broom，dce，when entablithed，are widon vilured by rebbits，except in oevere weather，but it would be ueciese to plant them where rabbite are Damerous．Geurqe Iumoun

\section*{COLOUW IN APPLEB－Some lime aince your} rraspobatn：－A I＇diow mitention to froite of Comentesee of Es）Moyar It itifeltarel \＆ociety，which wert of so exerpliowally high colour；inderd，so moch colour hed thew eppeimene that＂A．D．＂had donbte of correctices of the Dame，waggestivg Mr． Mile had rande a miatake，and that what he showed was really Mere de Monge．I balieve thew are the fecte of the caw，bot as I am writing from memory， I seay be in error．I am atisfied Mr．Miles would ate so each wiatake．Ho han aesrly 200 varietioe of Apples，aod ciree apon 40 acree of orchard under hie chascs．For wome ymare patt he bee been apply－ ing enturate of hos and tox at a topdressing to the lus on whith the treet are crowiog，with the object of inerawigg the amount of celcur in the akis of certain vanieties．H．wolld，indeed，be a bold man who would eny，after inepecting the whole of the troes an I did lant September，that Mr．Milee hea pot eucepeded is his esdenrour．I never enw Wel－ lisgton（Dumelow＇s Seedling）with moh bigt colour sw here There are quife fify trees of this Apple a veat twezty－eix years old，wheh afford exceptionally brevy crope of fruit in some meseons；and one tree not dreseel with these mbetences exhibited smarked cantrats to the othere．King of Pippien，Cox＇s Orange Pippia，and nany others，I have never seen no rictly coloured elecwhere．The dieputed Blenhein Orange Pippin wat quite exceptional too．Boorve of trees of thi variety mre laxuriating－－this is the correct word to ase，and atill they beer manually besty crope of remertably fine frati；and thiz yonr
 comewhat ilow apobem of prowing Ie practioed，and cwen the viandard trese of Blesheim Orange and Welliogton are eubjected to this．Mr．Milen is a mansel believer is the free edmiation of light sad sir to the fismer parts of all the troes，no matier what their＊inpe．E．Molymas．

WEEVIL－A－even partina rowedy for the raveges coneed by thio pout amona Fores in atab－ lisbed collectime hat diviset wilap，I have no dombe cone of yar reflers．We ill bercsted in the followime respits of mater of nuccesafal experi－ acote in rrulient the grab without dictarving the jlestaffetel．Tae metril，so is ouly toe well I mow，dumase plavts ie tw，diferent waye，durink it larval and daring ite perfect ocstr．In the later the weevil，at we know，creeps about malr at migbt tiane，and gmaw bole through the frond：or maket agly gape il their dgut fo wack sa extent，that were they proveil they completely
deatroy the beauty of the plants, and eapecially of Harta-tongues where auch damage is more conapicuous. The remedy at this stage is simply persiatent hanting at night, taking the precantion to apread sheets of paper under the plante, so that when they drop, as they are apt to do at the least alarm, they may be seen and deatroyed. It is however, in the larval or maggot stage that they do the moat barw, as their attacks are then confined to the roots and crowns ; and as they are busy during the dormant seanon as well as in the apring and antume, the first indication of their presence, often in aeed pans an well as with adult plants, in a uudden drooping and falling over of the fionds, which are then foand to be quite loose, the whole of the roots and axis of growth being gone, and the plants, of course, destroyed entirely. We have repeatedly found batches of choice seedlinga oo invaded, that in a week or two the whole of the fronds may be blown away, not a fibre being left to attach them to the soil. Now the difficulty ia, that to remove these pesta has hitherto involved turning out the plants and thoroughly washing the roote in order to find the marandert, which are often anugly ensconted in the heart of the plant-and this, especially in the winter meason, is a risky operation, as well an a troablesome one. About a year ago, finding a batch of these larva, we kept them under water for several days to see how long immernion was required to drown them; but at the end of nearly a week they were atill alive, and we consequently abandoned that idea of drowning them out. Sabsequently, however, we plunged an affected pan under water, intending to leave it, if need be, a week or two rather than disturb a specially preciona batch of planta, and next morning, after only a night's immeraion, we were delighted to fiad all the maggote on the surface of the soil, perfectly active, it is crue, but equally perfectly at our mercy, which was a minas quantity. Repeated trials since then have convinced us that planging a plant so that water just covers the soil for twenty-four hours anffices to bring them all up in search for air, and thus to clear the pote or pane entirely with a minimum of trouble. Chas, T. Druery.

\section*{Variorum.}

\section*{A TOBACCO PEST}

For a number of years a disease allied to that which attacks the Potato in this country, has caust d grest dentraction in the seed-beds and plantations of Tobacco in the Datch East Indies, and particalarly in Sumatra. The colonial government commisaioned Mr. I. Van Bagda dE Hask to inventigate the disease, and to devise means of checking its ravagen. Mr. dr HaAN diecovered the cause of the disease to be a fungas nearly allied to Phytophthora Solsni. "Nevertheless," aya Von Egnest Hacluer in the Illuatrirt. Garten Zeitung for November, "according to my researches, this is not the case, this species of fungus not affecting tie Tobacco plant at all. The latter has shown, during these inveatigations of Mr. HaLLien, ex raordinary resiatance to many bacteris, and that which canse the wet-rot of Potatos has not the alighteat injurious influence on the Tobacco plant. In fact, leavea of the latter cut from the plant remain quite freah after being kept for four or five weeks in a damp cellar, neither withering nor decay ing, not even when the gonidia of Phytophthors and the bacteria of the wet-rot are sown over them, the sap of the glandular hair exerting a poisoncus influence on the Phytophthora and these bacteria I then," says Mr, E. Hallier, "carried out more accurate researches into the conserving properties of the leaven of Tobacco, and I am convinced that the living plant poseessen extraordinary conserving and disidfecting properties. The unen of Tobacco-nmoke and Tobseco-water have been known for a very long period of time for the destruction of plant lice, acsle and other iojarions insects, bat few persons are acquainted with the use of the sap of the living plant, of which every gardener ahould keep a atore for und at any seasun. It is not necesaary to give say recipe at is the case in the use of manufactured tobacco; and every intelligent gardener will know in which cases and in which manner frenh Tobaeco-
leaven or the sap of the plant should be used. For inatance in the cariiage of frait and flowert, s bouquet surrounded by a holder made of fresh leaves of the Tobacco-plant will remain fresh-looking at least ten times as long as when this prudent course is not adopted !

MARKETS
COVENT GARDEN, December 24.
[We eannot accopt any responaibility for the subjoined reports. They are furnished to us regularly every Thursday, by the kindness of several of the principal for the quotations. It must be remembered that these for the quotations. It must be remembered that these quotations do not represent the prices on any particuiar day, out only the general averages for the week preosding quality of the samples, the supply in the market, and the demand; and they may fluetuate, noc only from day to day, bat often several times in one day. ED.] Plants in Pots.-Average Wholegale Priges.




Cobs, per 100 lb .
Cut Flowrrs. - Average Wholesale Prices.



\section*{Vegrithbles.-Average Wholeshle Prices.}


Trade quiet; supplies heavy. Snowdrops, 70s. to 90 . Hebrons, 75s, to 85 s . ; Bruces, 45 s , to 60 s . ; Black lands, 30 s. to 45s. J. B. Thomas.

\section*{potatos.}

London Averlaes : Dec. 23. - Sazons, 90s. to 100 s . Dunbar Maincrop, 70 s , to 90 s . ; Lincoln Sazons, 70 s , to 90 s . Hebrons, 70s. to 80s.; Mainerop, 50s. to 80s.; Satton's Abundance, 50s. to 70s.; Imperators, 40s, to 50 r ; Magnums, 40 s , to 50 s , per ton.

CORN.
Averages. - Official statement of the sverage prices of British Cors, imperial measure (qr.), for the week ending Decembar 21, and for the corresponding period last year:1895: Whent, 25v. 1d.; Barloy, 284. 8d.; Oate, 13s.11d. 1894 Wheat, 208, 2d, ; Barloy, 21s. \(5 d\); Osts, 13x. \(11 d\).

\section*{SEEDS}

Lovdon: December 21.-Mesers. John Shaw \& Sone, Seed Merchants, of Great Maze Pond, Borough, London, S.E., write, that the seed market now exhibits quite a holiday appearance, and transactions are few and far between, quotations all round are in consequence purely nominal, and no noteworthy feature whatever has developed itself. Meantime prices generally stand at a very moderate level, and with the opening of the New Yesr a good trade is hoped for. Niger seed on the spot appears nearly exhausted, and is much wanted. Other articles call for no comment.

\section*{FRUITS AND VEGETABLES.}

Farringdon: Dec. 24.- Quotations: - Cabbages, Col do. 2s. 6a. per tally, savoys, 4s. do.; Cauliflowers. 68. do. : Parsaips, 18. per score; Thrips, 2s. per dozen buaches Celery, 13s. per dozen rolls. Hosseradish 1s. 2d. per bushel; elery, 13. per dozen mim, Apples, Canadian Blenheims, 5s, per bush. ; Greeaings, 15s. per barrel; Baldwins, 188. ; Newtown Pippins, 18s., do.; Tucker's King, 22s. \(6 d\), do.; Ribstons, do. ; English
pound; Almiera do., 5s. per dozen pounds.

\section*{HAY.}

Average of prices at the metropolitan markets during the week ending December 23, and for the corresponding week last year:-Clover, best, 80 s. to 95 s. ; do., inferior, 50 s . to 70 s . ; hay, best, 80 s . to 90 s ; do., inferior, 38 s , to 60 s. ; mixture, 78s. to \(878.6 d\). ; and straw, 20 s. to 42 s . per losd.


Booss: J. P, E. F. C. There are no elementary books on forestry worth your atadying. Get the newest, viz, The Mamual of Forestry, in four volumer, by Psof. W. Schicb, published by Bradbury, Agnew \& Co., Limited, 8, 9, and 10, Boavprie Street, E C. - A. G. M. Baltet's The Art of Grafting and Budding is published by Mr. W. Rahinaon, 37. Soathampron Street.

Fochsias: Reader. The earliest-introduced speciea was macrostemma syn. coccinea, 1788 ; the next lycioides in 1796-both from Chili, and many other apecies in the first half of this century. The introducer of the first was maid to be a sailor, whose name is not known.
Holly: A. B. It will be quite afe to cut the old tree hard back into the old wood. When the roote are bared, at you propose doing, it would be advisable to take out a trench all round the tree at a distance of 5 or 6 feet from the stem, cutting back all roota that go beyond that distance, and filling the trench with fresh soil. The new loam and manare that you top-dress with will also do for filling the trench; or if that is too extravagant, you might mix a good proportion of these materials with the ataple. Lift Hollies in April, May, and Auguat.
Names of Fruits: \(J . W .1\), Hacon's Incomparable; 2, Beurré Diel; 3 Josephine de Malines; 4, Althorp Crasasne ; 5. Kaight's Monarch ; 6, Glout Morçaan; 7, Apple Court of Wick.-F. A. Whitehead. 2, Claygate Pearmain; 3, Cellini ; 4, Yorkshire Beauty ; 5. Blenheim Orange; 6. Damelow's Seedling.-A Southern Subscriber. Your Apples are not known to us. They are probably some loca varietien,-W. H. Divars. We do not recognise your Apples-No. 1 looks like Cellini, but is much sweeter than that sort, which of course you have. - Snowdon. 1, Golden Noble; 2. Old Golden Pippin: 3. Ribston Pippin ; 4, Claygate Pear main; 6, Wyken Pippin.
Name of Plant: A. J. C. Lælia antumnalie.
Communications Received - H. C. F.-J. S.-A. F. B. H. W. W. - W. R. - H, B.-F. W. B. - W. J. B. - Harrison Weir.-I. E. - D. T. F.-A. D. - R.
W. H. S.-R. P.-J. D. - I. C. F. - M. D. Soppitt.

CONTINUED INCREASE in the CIRCULATION OF THE GARDRNERS' CHRONICLE.
mportant to ADvertigers. - The Publisher has the satis faction of announcing that the circulation of the "Gardener" Chronicle" hos, since the reduction in the price of the paper Increased to the extent of more than 80 per cent. and that it continues to Increase weekly.
Advertiser are reminded that the "Chronicle" circulates among GOUNTRX GRNTLEMEN, AND ALL CLAH8EA OF GARDESERB AXD EARDEN-LOVERS at home, that 4 has a specially large
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\(14 \times 3\) frepared Sash Bar at 5 s. per 100 feet.
llooring, \(5 / 9\) per square; Matching, \(4 / 9 ; 2 \times 4\), at \(+d\), per toot run. Garden Utensils, Trellis, Ironmongery, Paints, to. Catalogues free.
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As a large EXTRA circulation
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Mr Crarles Grist, of the Frame Ground, Newington Gardens (Parks Department), as Gardener to the Vestry of St, Luke's, E.C.
Mr. Herbert Wright, for the last three yeare General Foreman at High Firs. Harpenden, Herts, as Gardener to Captain Hamictos, Beckett Park, Shrivenham, Berks.

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J. R. Pearson \& Sons, Chilwell, near Nottingham-Chrys-

HrRb \& WALLin, Naples, Italy-Seede.
AvDraws \& Co., 21, Winchcombe 8treet, Cheltenham-Seeds Drohson \& Robinsox, 12, Old Millgate, Minchester-Seeds. Cooper, Taber \& Co., Limited, 90. Southwark Street, London, 8.E.- Wholesale Catalogue of Seeds. H. CANMELL \& Sors, 8 wanley, Kent-Seeds and Implements. Abmitage Bros., High Street, Nottingham-Soeds. Dregsons, Limited, Chester-Seeds, Implements, and Garden
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tres, BLRKBRCK ALMMANACK, with full partieulars, pontFRANOLS RAVENECROFT, Manager.

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\(\mathrm{G}^{\text {ARDENER(HzAD Working }) \text {-Thoroughly }}\)
 snd Fruit, Flower and Kitchen Garden. Kz
monials.-J. BROOKS, Hallow, near Worcester.
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\(T\) YO NURSERYMEN. - Young man, age 28 requires situation as UNDER PROPAGATOR, or a Hand under Glass. Tin years experience in the best firmas, With
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MR. RODMAN (Head Gardener), Hardwicke Court, near Gloucester, is desirous of obtainine s situs tion for a young Man, age 30, as Fress JOURNEYMAN in firsteclas garden, under
rience. Premium if required. - F. HARRIS, Hard wicke, near Gloucester.
CLERK (JUnior), - Shorthand and TypeRothesay.
CORN and SEED TRADE. - Engagement wand wand in above by yougg man, age 23. Good experience Foltham, Midilesor.```


[^0]:    FOR ORCHIDS and GARDENERS to Grow them, apply to SANDER'S, St. Albans. The finest
    stock of Orchids in che World. -30 minutes from St. Pancras.

[^1]:    - Botyorvi multityrum. Masimomez, in Bull. Anse
    

[^2]:     wwol seruntancenl hately by the Royal Horticul－ Pural society，They waro exhibited by Mr．Goore ay guriw，nghow．If have dietribated durieg the las teas ywar，throegt Mr．W．Thowpwon of Ipo
    
     raiwil thetour tho cortificated floww belowged on
     till themorw sill That I kwo labowt them．I．
    
    

[^3]:    NETS-NETS. - Tanned, Oiled, Waterproof, Birdm. Mar protecting Strawberry Bods, Frait

    SPASHETT AND OO., Net Manufacturern, Lowentot.

[^4]:    * Doryphora Syratefras. - Endlicher, Jc., to 10 (1838); Benthara, Fl. Australo, V. (1870), 283; Bailez, Cat. Plants

[^5]:    ＊Cupressus guadeloupensis，S．Wateon，in Proc．Amer． A add．，xiv．， 1879 （310）．－＂A widely－spreading tree，becoming $40 f$ eet high or more，and 2 to 5 feet in dianooter，with grayish－ brown bark cleaving off in thin plates and leaving the thin inger bark with a smooth，claret－red surface；branches droop－ ing，and branchlets very slender；foligge glancous－green，the back；cones glohose an inch or more in diandular on the very thick．and strongiv－hoesed meales diameter，of 8 to 8 ， large， 3 lines or more．On Guade loupe Island，off numerous， Iower California．Distributed as C．Isacrocarpa in coast of Pahner＇s collection from that inland．In cultimation Dr E． San Francisco，and lilely to prove very valuabla for abont mental purpowes．＂

[^6]:    ＊Linterosora Fawcettii，Jenm．，n．sp．－Rootstock pea－ sh upan，abont mee eighth of an inch thick，－Rot，or very little， elongated，upright，densely coated with mainute scales ； stipites tufted，slender，brown，3－4 inchee long，densely
    clothed throughout with fine clothert throughout with fine ferruginous hairs；fronds dull brown，Bimple，3－4 inches loaf，4－6 lines w＇de，coria－ ctous，linear－lanceolste，apez obtuse or rounded，to capering surface slightly hairy，mid－rib even or sinusted，upper veins obscure，partly free．partly areolated，by parench，ma， partially double series，mostly maedial．copions in the sie or half of the frond，imamersen in oblique slit－like cavities uper lines long，which on maturation eligharly open and reveal the erupting suorangia on the undor surface．Jamaiea in wood Reyal Mountains．Andrew Parish，on the slopes of the Port

[^7]:    send Orders and Emqutaies direct to-

[^8]:    $G^{\text {ISHURST }}$ COMPOUND, used since 1859 blight; for Red Spider, Mildew, Thrippo, Groenfiy, and other
     tromm cake, for American blight, and as an empultion when Eupersede it. Boxer co 3 , CTBUS
    $G^{\text {ISHOURSTINE keeps Boote dry and soft on }}$
     (Limited), Lomdon.

[^9]:    *Tehihatchewia isetutea.-Boissier, Flor. Orient., i. 310 ; Micheli, in Revre Horticole, Augast 1, 1895, Drient., i. 310 , figs. 118 , 117; Bailloa, Hist. des Plantes. val. iiii., 1872, p. 281 ; Pranti, in Englar w' Preatl, Dia Natiortieten Pflanxenfamiliem, 1iif. Theis, 2 abtheilung. p. 209 (1891).

[^10]:    * Les Flewrs de Plsine Terre, the od. 856 (1894).
    

[^11]:    * Cattleya Fovoleri $x$, Sander and Kriandin (Hardyana of $x$ Leopoldi q).-Sulbis 12 to 15 pollices longis, imternodiis supremo dimidium totius plante sequante; foliis 2 oblongoInnceolatís obtusis, squana minpliei; racemo biflono (in utroque specimive observato); eepalis lineari-oblongis obtuse acretis; petalis misgine leviter undulatis oblongissubrhombeis obtasis duplo latioribus; labelli lobis lateralibus semiovatis obtuasis conniventibus, lobo intermedio marimo semiovatis obtasis conniventibus, lobo intermedio maximo quadrato in cransvarse roctangulo antice ainusto margine utrinque ot intus purpureo-violacei; lobi latarale poll. diametro extus et intus purpureovialacei ; lobi laterales labelli edom colore.

[^12]:    Hot-water apparatus: Cheapest and most efficient. Cost of Complete Apparatue for return pipes along one side:-7ft. Complete ${ }^{2}$ 15s.: oft

[^13]:    * Dendroiium (Pedilonum) glomeriforum. Krzl.. n. sp.Caulibus maximis crassissimis multiarticulatis ad 70 cm . altis, glomeratis multiv, plarifforis flyo-lanceolatis, acutis; spicis, sepalo dorvali oblongo obturo, lateralibus inter minores generis: sepalo doraali oblongo obtu*o, lateralibus multo majoribus semioblongis obshai4 antice onnino hiberis pseud ca cuar obtusissitibus; petalis quam sepalum dorsale lonqum brevius formanginemunute ciliatis ; kapello dasi linearn pum mivorir uy margeterum integroexcavato obtuso; gy nostemiogo margine ciliato utrinque juxta androcinium emarginato obtuse vaide carnoso antice retusa fere quadrata postice bilobata. rostello antice reculineo, foves atizenatica satiliniis generis ; pallide rosei $\vee$. caraeí, 8 mane diametro. Habitat?

[^14]:    * Lilium Parryi, Watson, Botzoical Cakodry, rab 0 (1880), p. 165. Elwes' Monogr. genus Lilium (1800), thict "Bulb mroll, somewhat rhizomatous, of numuro gichor jointed scales about an inch long; stem sleadered, 2-5 feet high, 2-10 flowered; lesves usualy sate, 4-6 times the lower in a whorl, linear ob:anceolate, long by about half an inch wide, mostly acuminato pale yellow, sparingly and minutely dotted on 6 , 6 about an inch long; segments 3 inches long or more, wide, somewhat ; segmenting above, or the lips at wide, somewhat spreading above, or the anther recurved; stamens and atylez a little shortory oblowg, brownish, 3 lines long; capsule narnowis nearly 2 inches long, by 6 line in braadth. -Proc. $G$ ang Academy, ii. 188, t. 5, 6, and in a marth in Sen Gav is the coat ranges of San Bornardino count by Dp. O. O. Parry in July, 1876, in flowas."

[^15]:    - Published by William Oate, Bouverie gtreet, E.C., price

[^16]:    * Catusctum firox, Kral., n. ep.- Habituonaino Catasetorum minorum, racemo elongato plurifloro; bracteis triangulis quam ovaria multo brevioribu" ; sepalis laneeolatis acuminatis cum petalis paullum latioribus galeatio, labello crasso postice lobighe lataralibustice naccatomentum formante leviter sulcato, lobis lateralibus nallis masgine utrinque inerassato infra multitaberculoso (quasi dentes molares referente), lobo inter. medio nullo, deatibus 6 quorum modiani quique majores mediani 2 coaliti intra ante limbum anteriorem sacci; myores tomio alto sepala fere requante anthera longe mitrato cirrhs longissimis ad marginem anteriorem sacci cometa, tibus ; pollinia generis. Flores inter minoren seci decurren--3 cm . alti, sepala cordide viridia; pethis legeneris 2 s cm. pureo-punctata, labellum laste viride albo-viridia purF. Kränzlin.

    Linospadix Micholitzii, n. sp.-Acaulis cæspitosa. Folia elongata erecta cuneata basibus in petiolis attemuatis, apicrbus profunde bifidis, laciniis 10 pollices longis acuminatis, glabra, carina crassiuscula et nervis elevatis (ad 22) subtus brunneofurfuraceis exceptio, 3 pedes longa, 6 pollices lata. Spadices erecto-nutantea, gracillimi; pedunculio $14-2 y$ pedes longis. spicis singulis ad 10 pollices longis vix incrasatis brangen furfuraceis, uniserualibus. Flores spiraliter dispositi minueomanculi bini in foveis 青 pollicis longi bracteis dispositi minuti, ovata ineequalia obtuss imbriosta. Petala obtusa. Stamina 6. Flores fomivei singuli in foveis. Selata ovata obtusa cucullata. Petala pauilo longiora la. Sepala obtusa. Stigmata breviuscula lata crassa recura late ovata oblonga pollicis longa, \& pollicis leta stacurpa, Drupa rubro, pericarpio tonui extus carnoso, intotignate terminali, aquabill, duro; embryone basilani, - Monns foroso: alburaine Coll. Micholitz, F. N. Ridlys, Singapore.

[^17]:    * Eupato ivm servilatum, D. C. Prod., T. 147; Baker in Martive Flora Brassliensis, Composite, p 318, Bd, Andre in Hevue Hortico' C , July 1.189 , C, ic. color.

[^18]:    $\mathrm{T}^{\circ}$
    $T \mathrm{O}$ BE SOLD, pursuant to an Order of the High Court of Juatice, Chancory Divition, made in an of John Burchell, a Bankrupt), 1895, B. 181, with the approhe tion of Mr Justice North the Judge to whom the aption is attachod by Mr. Walter William Read. the person appointed by the said Judge, at The Mart, Tokenhouse Yard, in the Oity of London, on Tuesday, September $24,1895^{\circ}$, at $20^{\prime}$ Clock in the afternoon precisely. in One Lot, the Valuable and Very Compact FREEHOLD ESTATE, KDown an LITLLE CANONS," situate in the Parish of Great Parndon, Epping, in the county of Essex, consisting of a capital Residence, Farm Buildings, and Stabling; 8 Greenhouses, heated by Hot-water Piping and Roilers; Railhts' Prodnctive Orchards, together with 51 ncres ' 1 tardens, three (or thereabouta) of Park-like Pature, Market Garden, Orohard. mind Woodlands.
    Particulars, with Plan, and Conditions of Sale, many be obtained of Messrs. SAUNDERS, HAWKSFORD, AND BENNETT, Solicitors, 68, Coleman Street, Bank, F.C.; at The Mart, E.C. ; and of Messrs. W. W. READ AND CO., Auctionears and Land Agente, T, Queen Street, Cheapside, E.C.
    Dated this August 12. 1895.

    Dated this Auguet 12 1895

[^19]:    high, with s thin sanguineum, Rolfe.-Stems slender, 3 feat

[^20]:    - Misc, Bot. Work 1. 812
    | Proc. Limn. Soc., 1887-88, 05. i Hemorial Sketch, 140 , 132

[^21]:    *Proc. R. 5., xlív., xvii.
    Natwre, 8.80
    Histoy, 142.

[^22]:    Loc. cit., 139, 140.

[^23]:    Ann. A. SC, nat., 7th series, xx, 355

[^24]:    CONTINOED INCREASE in the CITCULATTON OF THE mpontavt to ADVERTRERE CFBONICLE.

    Fuetlow of amonncing that the che Publisher has the wattsOnromicle" has, wince the reduction in the of the "fardeners Increared to the artent of pore the price of the paper and that it continues more than 80 per cent davertisers are romindiel that the incrasie wookly.
     MOD GARDMN-LOVERs at home, that then or GARDEXENA
    

[^25]:    "ITANURES and THEIR APPLICATION," Horticultural Society by W. Dyke. Gd each, 3 for 1s, Bd. post-Iree. W. DIKE, Turnford, Horts.

[^26]:    illustrated catalogue, 1s. price list free.
    UPPER GROU
    UPPER GROUND STREET, BLACKFRIARS, LONDON, S.E. Telegraphic Addresi-"HOT-WATER, London." Telephone, No. 4763.

[^27]:    * Masdevallía Levorencer, Krzl.-8capo triquetro ad 15 cm . alto alato, squamis bracteiformibus scaposiosis $3-4$ acutis oario natis ovaria longe non sequantibus; cupala floris brevi, cepali dorsalis parte libern triagauls in caujam fioris brevi, eepall producta, sepalis lateralibas obloggo-lan quolatis acuminatio bmed tantura ocalitio caudioulio brovibus, cuprla albe instu

[^28]:    k.., Didrectar of the Boyas Gman Dyer, M,A., F.B B., C.M. The Britieh Association, Ipelardena, Xew, wt the meeting of
    $\dagger$ Lins. Phil. 210 .
    TSyntem of Lagic, is 132.

[^29]:    
    Hyacinths, Tulips,
    Narcissi, Lillies, Crocuses, Scillas, Snowdrops, Irises, \&c. BEST QUALITIES AT LOWEST PRICES Delivered Free by Rail or Parcel Post. Desemiptive Catalogue No 455 pons enee on apmidation.
    Dicksons buthomen CHESTER.

[^30]:    * A name more in accordance with focts and logic would be Astilbe sruacoides; only the athorlty of a botanist is lackin to cmase this to be admitted. H. $L_{\text {. }}$.

[^31]:    
     clawification of Maximowicz $E, L$.

[^32]:    5. Division of herbaceons plants,
    (a) Take a clump of lris and ciear avsy the soil from it portion of rocta to the rumeve evory crown of leaved with portion of rocta to the ewne.
    (d) Hupdrede ot other harbaceove pled, will form a plant. the same way, with the maceous plante may be treated in the same way, with the smallent promible loss or wate of
    (s) Verial.
    (a) Kever use a apade in the diviaion of herbaceove planta of any it occonoos particuleriy valuable and slow-growing worts,
[^33]:    OONTINUED INCREANE TM the CIRCULATTON OF THE rwourate to Apy frotion af ompowning int ine Tho Publetier has the satis Elinomids" has, stioc the reftriuation of the "Cavideners Increaned to the extent of mon ine prise of the paper and that it continneen to theresi 80 pex cent. Adrertiows art reminded that on "corease weokily.
    
    
    

[^34]:    THE GOOD DIE YOUNG. - Unlike most HE GOOD DIE
    popular nayings, this has very little trath in it. Kxperience every day proves that some at least of the good are
    spared to malte the worid brighter and better, and a more spared to male the world brighter and better, and a more pleamant place to live in. In fact, our experience is that good poople, and good the thousanda of articles which have been widely advertisod and are now forgotten. Why? Because
    they were bed. On the other hand, we have HOLLOWAY's they were bad. of poor hamanity for fifty years and more. Why? Because they are good. Of a truth, thet which is good does not die, bet lives for all timo.

[^35]:    * The Sociét́ Nationale d'Horticulture do Frasce alloited ite higbent award for this shrub-a ist prize, wi.h a Firstclase Certifcate of Merit.

[^36]:    
    
    

